# Draft Revised Environmental Impact Report

# Monterey Amendment to the State Water Project Contracts (Including Kern Water Bank Transfer) and Associated Actions as Part of a Settlement Agreement (Monterey Plus)

## Document C, Volume I (unchanged) (February 2010 Monterey Plus Final EIR)

## SCH#: 2003011118

**State of California**
**California Natural Resources Agency**
**Department of Water Resources**

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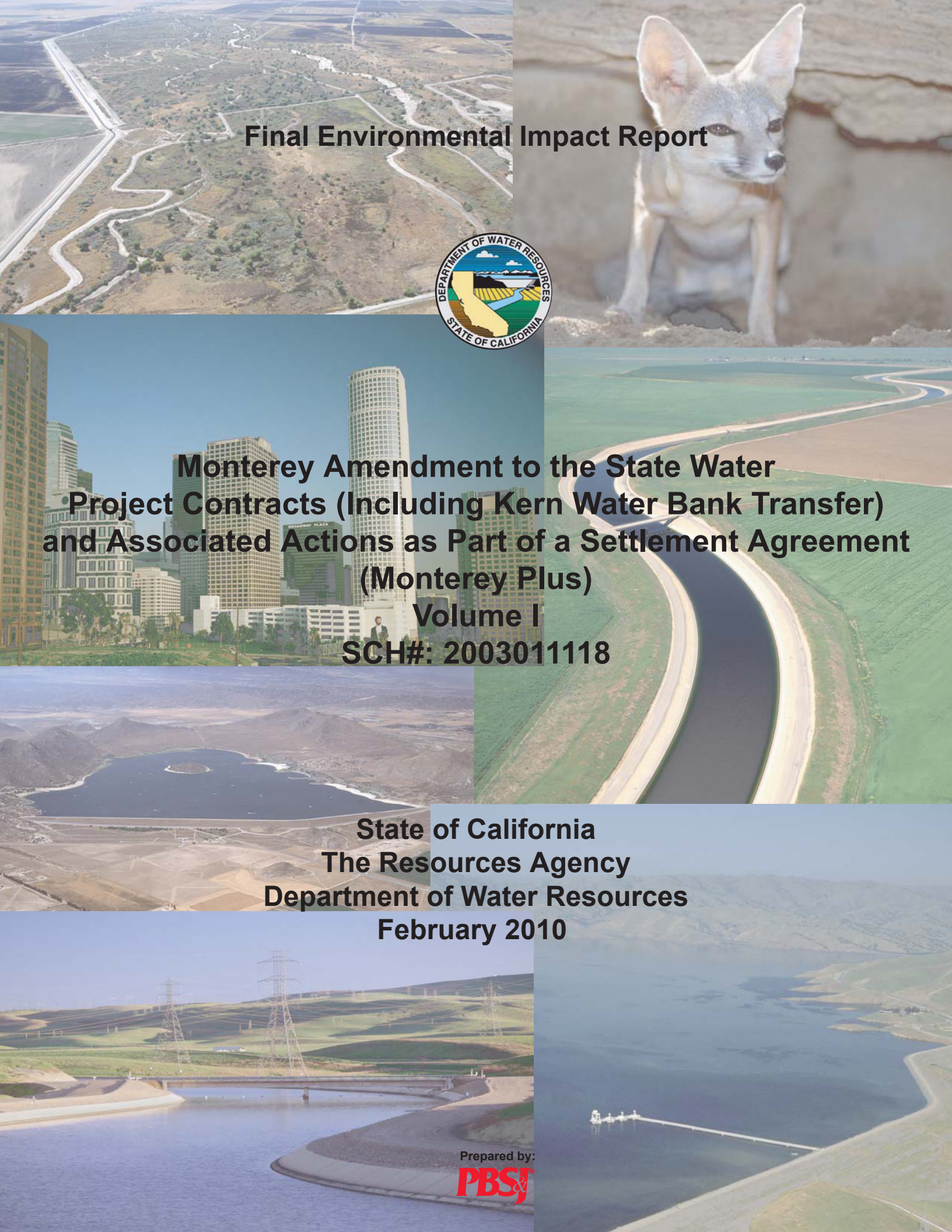
Prepared by:
AECOM



# Final Environmental Impact Report

# Monterey Amendment to the State Water Project Contracts (Including Kern Water Bank Transfer) and Associated Actions as Part of a Settlement Agreement (Monterey Plus)

## Volume I

## SCH#: 2003011118

State of California
The Resources Agency
Department of Water Resources
February 2010

Prepared by:
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*Final Environmental Impact Report*

# Monterey Amendment to the State Water Project Contracts (Including Kern Water Bank Transfer) and Associated Actions as Part of a Settlement Agreement (Monterey Plus)

Volume I

SCH#: 2003011118

Prepared for:

State of California
The Resources Agency
Department of Water Resources

Prepared by:

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# TABLE OF CONTENTS

# TABLE OF CONTENTS


| Chapter | | Page |
|---|---|---|
| | GLOSSARY AND ABBREVIATIONS | 1 |
| 1. | INTRODUCTION | 1-1 |
| 2. | CHANGES TO THE DRAFT EIR TEXT, FIGURES, AND TABLES | 2-1 |
| 3. | INDEX TO COMMENTS AND RESPONSES | 3-1 |
| 4. | INTRODUCTION AND PROCESS | 4-1 |
| 5. | PROJECT DESCRIPTION AND OBJECTIVES | 5-1 |
| 6. | ANALYTICAL METHODS | |
| | 6.0 Methodology | 6.0-1 |
| | 6.1 Baseline | 6.1-1 |
| | 6.2 Changed Conditions | 6.2-1 |
| | 6.3 Methods | 6.3-1 |
| 7. | ANALYTICAL SECTIONS | |
| | 7.0 Introduction to Analytical Sections | 7.0-1 |
| | 7.1 Surface Water and Groundwater Hydrology, Water Quality, and Water Supply | 7.1-1 |
| | 7.2 Fisheries Impacts | 7.2-1 |
| | 7.3 Terrestrial Biological Resources | 7.3-1 |
| | 7.4 Visual Resources | 7.4-1 |
| | 7.5 Air Quality | 7.5-1 |
| | 7.6 Geology, Soils, and Mineral Resources | 7.6-1 |
| | 7.7 Recreation | 7.7-1 |
| | 7.8 Energy | 7.8-1 |
| 8. | GROWTH-INDUCING IMPACTS | 8-1 |
| 9. | RELIABILITY OF WATER SUPPLIES AND GROWTH | 9-1 |
| 10. | OTHER CEQA CONSIDERATIONS | 10-1 |
| 11. | ALTERNATIVES | 11-1 |
| 12. | CLIMATE CHANGE | 12-1 |
| 13. | ARTICLE 18 | 13-1 |
| 14. | ARTICLE 21 | 14-1 |
| 15. | WATER SUPPLY MANAGEMENT PRACTICES | 15-1 |
| 16. | KERN FAN ELEMENT | 16-1 |
| 17. | COMMON RESPONSES | 17-1 |
| 18. | REFERENCES | 18-1 |

APPENDICES

A. Comment Letters

B. Historical Study (revised DEIR Appendix I)

C. Governor Schwarzenegger letter to Senators Peralta, Machado and Steinberg dated February 28, 2008

D. CALSIM II Letter dated September 22, 2005

E. John Leahigh Documents relating to SWP Operations

1. John Leahigh Tables, attachment to December 15, 2008 DWR News Release (shows SWP Delivery Impacts of Delta Smelt Opinion)
2. John Leahigh Declaration in Support of the California Department of Water Resources Proposed Interim Remedy, filed August 9, 2007 for a hearing on August 21, 2007
3. John Leahigh Declaration in Support of Defendant-Intervenor Department of Water Resources' Opening Remedies Submittal in *PCFFA/Institute for Fisheries Resources v. Gutierrez*, filed May 15, 2008 for a hearing on June 6, 2008

F. Documents Incorporated by Reference

G. Settlement Agreement Article III(H) Documents

# TABLES


Table | Page

**FEIR Tables**

3-1 Index to Comments and Responses ..... 3-5

6.3-1 Analytical Methods and their Benefits and Limitations ..... 6.3-4

7.1-1 Imported Supplies to MWDSC from the Delta and the Colorado River ..... 7.1-3

7.2-1 Summary of EWA's Actual Water Purchases (2001 - 2007) ..... 7.2-43

8-1 SWP Water Stored in Out-of-Service Area Groundwater Banking Programs by M&I Contractors and Available for Recovery as of 2003 ..... 8-15
8-2 Average Critically Dry Year Deliveries With Banked Groundwater Withdrawn Over Five Years ..... 8-18
8-3 Potential Population in 2030 Supported by Additional Dry Year Supplies ..... 8-19

9-1 SWP Article 21 Deliveries 1986-1996 ..... 9-15

**Revised DEIR Tables**

5-2 Analytical Studies ..... 6.3-28

6-3 Potential Effects of Monterey Amendment on SWP Operations ..... 4-13

7.3-2 Chinook Salmon Spawners Populations in Selected Sacramento River Tributaries. 7.2-53
7.3-3 Sacramento River at Red Bluff Diversion Dam Chinook Salmon Spawner Populations ..... 7.2-54
7.3-5 Special Status Fish Species and Designated Critical Habitat within the Sacramento-San Joaquin Delta in 1995 and 2003 ..... 7.2-57
7.3-13 Summary of the Primary Environmental Stressors Being Evaluated as Part of the Pelagic Organism Decline Investigations ..... 7.2-58
7.3-14 Adult Delta Smelt Recovery Index (Based on Fall Mid-Water Trawl Survey) ..... 7.2-61
7.3-19 Average Monthly Flow Changes for Proposed Project Compared to Baseline Under 2020 Conditions ..... 7.2-32
7.3-22 South Delta and Salvage Conditions During Monterey Amendment-Induced Pumping Events from 1996 to 2004 Event 1 ..... 7.2-62

8-2 GPCPD for the South Coast and San Francisco Bay By Hydrologic Units Region ..... 8-39
8-3A Potential Population Supported By Estimated Average Annual Deliveries in 2030 ..... 8-42
8-3B Potential Population in 2030 Supported by Estimated Dry Year Deliveries ..... 8-43
8-3C Potential Total Population Supported in 2030 ..... 8-44

11-23 Environmental Impacts of Alternatives ..... 16-22

# FIGURES

FEIR Figures | Page


7.2-1 Estimated SWP Delivery Impacts (Reduction from pre-Wanger Regulation (D1641)) ..... 7.2-15
7.2-2 Estimated SWP Delivery Impacts ..... 7.2-15

9-1 SWP South of Delta Table A Delivery (Under 2030) Conditions ..... 9-20

13-1 Deliveries to SWP Contractors, Proposed Project ..... 13-12
13-2 Deliveries to SWP Contractors After Invocation of Article 18(b) ..... 13-13

# GLOSSARY AND ABBREVIATIONS

# GLOSSARY

| | |
|---|---|
| Acre-Foot | Volume of water (43,560 cubic feet, or 325,900 gallons) that would cover one acre to a depth of one foot. |
| Alluvial Fan | An area of gravelly stream/river deposits spread out in fanlike deposits over a large area during a long period of time. These areas are generally found in the southern and eastern portions of the Central Valley and emanate from valley canyons. |
| Article 18 | An article of the SWP long-term water supply contracts between the Department and each individual contractor; which addressed water supply shortages. The subdivisions of the original article addressed short-term water shortages and related water delivery priorities, permanent shortages and related reductions in Table A amounts, permanent shortages related to areas-of-origin water rights settlement contracts, reinstatements of Table A amounts, advance notice of delivery reductions, and no liability for shortages. |
| Article 21 Water | An article of the SWP long-term water supply contracts between the Department and each individual contractor; which addressed non-Table A water that becomes available on an intermittent, interruptible basis. The subdivisions of the original article defined SWP water types; set priorities and procedures to reduce deliveries of Article 21 water; and provided provisions for schedules, rates, power, costs, and other considerations. |
| Approved Table A | A prorated amount of water that the SWP can deliver to a contractor in a particular year, and can be equal to 100% of a contractor's Table A or some other reduced percentage. |
| Burns-Porter Act | Authorized the submission for voter approval of a $1.75 billion general obligation bond issue to finance construction of the SWP (Water Code, §12930, et seq.). |
| CALFED Bay-Delta Program | A federal and State multi-agency program whose goals are to develop and implement a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta System. |
| California Aqueduct | The primary conveyance facility of the State Water Project. The 444-mile California Aqueduct conveys water from the Delta, through the San Joaquin Valley along the eastern slope of the Coastal Range, to Southern California. |
| California Endangered Species Act (CESA) | The California Endangered Species Act of 1985 (CESA; Fish and Game Code Section 2050 et seq.) is implemented by the CDFG. CESA prohibits the "take" of listed threatened or endangered species. Take under CESA is restricted to the direct killing of a listed species and does not prohibit indirect harm by way of habitat modification. |
| CALSIM II | A computer model that simulates operations of the SWP and CVP Water Systems. CALSIMII is a planning tool that was jointly developed by the Department and the U.S. Bureau of Reclamation. The model's inputs include hydrological data for specified study planning years, water demands, infrastructure and regulatory change, and other factors; outputs include deliveries to the project's contractors, river flows, reservoir changes, Delta hydrological parameters, and other data. |
| Carryover Water | Table A water that is allocated to a contractor in a given year, but is unused by it that year, which is stored for that contractor in SWP supply reservoirs (when storage space is available) for use by that contractor in a following year. |
| Central Valley Project (CVP) | The CVP is a water storage and delivery system of reservoirs, aqueducts, and pumping plants operated by the U.S. Department of Interior's Bureau of Reclamation. The CVP's main purpose is to store water and distribute it to urban and agricultural contractors in northern California, the San Joaquin Valley, and portions of the San Francisco Bay area (primarily Santa Clara and Santa Cruz counties). CVP facilities include reservoirs on the Trinity, Sacramento, American, Stanislaus, and the San Joaquin rivers. In addition, the CVP owns approximately one-half of the storage capacity of San Luis Reservoir. The CVP's Tracy Pumping Plant at the southern end of the Delta lifts water into the Delta-Mendota Canal for delivery to CVP contractors. The CVP has organized its facilities and operations into the Trinity River, Shasta and Sacramento River, American River, Eastside, Delta, West San Joaquin, San Felipe, and Friant Divisions. CVP water users include Sacramento River water rights contractors, San Joaquin River exchange contractors, CVP water service contractors, Friant Division contractors, and Cross Valley Canal contractors; these contractors have a wide variety of contract provisions for water service with Reclamation. |

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| Delta | The legal Delta, as described in the California Water Code Section 12220, generally extends from Sacramento to the north, at the I Street Bridge, Tracy to the south, Interstate 5 to the east, and Collinsville to the west. The Delta covers approximately 738,000 acres. |
| Decision 1485 | The SWRCB's Water Right Decision 1485 established terms and conditions regulating operations of the SWP and CVP. The Decision went into effect in 1978, but was disapproved by the California courts in *United States v. State Water Resources Control Board.* 182 Cal.App.3d 82 (1986). Nevertheless, the Decision remained effective until it was modified in 1995 (95-06) and 1998 (98-09), and was superseded by Decision 1641 in 1999 (as revised in 2000). |
| Endangered Species | Those species listed as endangered under FESA and CESA; any species, which is in danger of extinction throughout all or a significant portion of its range. |
| Endemic Species | Plant and animal species that are native to and confined to a certain region. |
| Extended Carryover Storage | Article 12(e) of the long-term water supply contracts allows contractors to carryover Table A water from one year to next under certain conditions. The water is temporarily stored or carried over in State Water Project reservoirs, primarily San Luis Reservoir. Article 56 of the Monterey Amendment expanded the circumstances under which contractors could carryover or temporarily store water in San Luis Reservoir. However, contractors must take delivery of carryover water before storage space in San Luis Reservoir is needed by the State Water Project. Any carryover water remaining in the reservoir when the State Water Project needs the storage capacity reverts to the State Water Project. |
| Federal Endangered Species Act (FESA) | The Federal Endangered Species Act of 1973 is administered by the Interior Department's USFWS and by the Commerce Department's NOAA Fisheries. FESA section 9 and its implementing regulations prohibit "take" of individual members of species listed as threatened or endangered. FESA defines "take" as meaning "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." (16 U.S.C.§ 1532(19)). "Take" may result from significant modification of habitat occupied by a listed species, but only if the modification actually causes the death or physical injury of an individual member of a listed species. (*Babbitt v. Sweet Home Chapter of Communities for a Great Oregon,* 515 U.S. 687, 700 (1985); *Defenders of Wildlife v. Bernal,* 204 F.3d 920, 924-925 (9th Cir. 2000)) |
| Hydrology | Science dealing with natural runoff and its effects on streamflows. |
| Indirect (Secondary) Impact/Effect | Environmental impact that is the indirect result of a project, such as the growth-inducing effects of building new roads and water supply infrastructure. |
| In-Lieu Groundwater Banking Programs | Programs where water agencies may deliver excess water (typically in wet years) to agricultural irrigators for use in-lieu of pumping groundwater. The surface water used is credited against a supply (bank) in the underlying groundwater basin, for future use by the groundwater "banking" agency. |
| Interruptible Water | Term given to Article 21 Water in the Monterey Amendments. |
| Kern Fan Element | A component of a proposed SWP groundwater bank in Kern County for use by the SWP and local agencies. The Department purchased property in Kern County for the facility and negotiated an agreement with KCWA to operate a demonstration ground water project on the property. The Department developed a First Stage Feasibility Study and Draft Supplemental EIR for the water bank. |
| Minimum Project Yield | The annual supply of the SWP to be made available to SWP Contractors, as determined by DWR. For modeling purposes SWP projects yield has been defined as the maximum amount of water that can be delivered on demand during the 1928-34 dry period sequence while shortages up to 25% are allocated in four years so the total shortage over the seven years is 100% of the demand. The project yield was originally estimated to be 4,000,000 AFY, was increased to 4,230,000 AFY in 1964, and decreased to 4,185,000 AFY as part of the Monterey Amendment. Under a recent amendment, estimated amounts are no longer included in the Water Supply Contract. (The project yield would be reduced under a scenario in which DWR implemented Article 18 (b); such a scenario is evaluated as part of this EIR.) In more recent years the concept of firm yield has been replaced with water delivery reliability curves which show the likelihood of water deliveries by the SWP in any year given the range of historical hydrologic events. |
| Non-project water | Water that is not SWP water. Other water supplies acquired by SWP contractors, or non-SWP water moved through SWP facilities. |

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| Racanelli Decision | In 1986, the California appellate court in the Racanelli Decision (named after Judge Racanelli who wrote the opinion) broadly interpreted the State Water Resources Control Board's authority and obligation to establish water quality objectives and its authority to set water rights permit terms and conditions that provide reasonable protection of beneficial uses of Delta water and of San Francisco Bay. The court stated that State Water Resources Control Board needed to separate its water quality planning and water rights functions. State Water Resources Control Board needs to maintain a "global perspective" in identifying beneficial uses to be protected (not limited to water rights) and in allocating responsibility for implementing water quality objectives (not just to the SWP and CVP, nor only through the Board's own water rights processes). The court recognized the State Water Resources Control Board's authority to look to all water rights holders to implement water quality standards and advised the Board to consider the effects of all Delta and upstream water users in setting and implementing water quality standards in the Delta, as well as those of the SWP and CVP. |
| Special Status Species | Plants or animals legally protected under either the federal or California Endangered Species Acts or the California Fish and Game Code; those species not currently protected by statute, but considered to be rare or endangered under CEQA; and species considered by the scientific community to be sufficiently rare to qualify for such listing [e.g., candidate species for listing as threatened or endangered, species of special concern to the CDFG or USFWS, or rare plants identified by the CNPS. |
| State Water Project (SWP) | A term to describe all facilities for which the contractors assume a repayment obligation. Specifically, the California State Water Project is a water storage and delivery system of reservoirs, aqueducts, powerplants and pumping plants. |
| Surplus Water | Pre-Monterey Amendment provision of Article 21 that defined a water classification for water that the SWP could supply from reservoir storage or from the Delta; that was in excess of supplies needed for Table A deliveries, reservoir storage, regulatory requirements, and other needs; and that could be scheduled in advance of its delivery. Article 21 defined delivery priorities, scheduling, rates, and other provisions. |
| SWP Allocations | The percent of Table A amount, as determined by DWR, that each SWP Contractor can receive in any one year based on that year's water supply availability and Contractor requests. |
| Table A (Table A amounts) | The maximum amount of SWP water that the State agreed to make available for delivery to a contractor during the year. The State and SWP contractors also use Table A amounts to serve as a basis for allocation of some SWP costs among the contractors. |
| Threatened Species | Those species listed as threatened under FESA and CESA; any species, which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. |
| Turnback Pool Program | A program in which Contractors with allocated Table A supplies that are in excess of their needs in a given year may turn back that excess supply for purchase by other SWP Contractors that need additional supplies that year. The Turnback Pool can make water available in all types of hydrologic years, although there is generally less excess water turned back in dry years. |
| Watershed | The total area above a given point on a watercourse that contributes water to its flow; the entire region drained by a waterway or watercourse that drains into a lake, or reservoir. |
| Water Supply Contracts | Contracts between DWR and individual urban and agricultural public water agencies that provide for the repayment of the SWP costs and for delivery of SWP water. (DWR 1962) |
| Water Transfer | Voluntary water transactions. The State agency most involved in regulatory water transfers is the State Water Resources Control Board. |
| Water Year | From October 1st through the following September 30th. |
| X2 | The location (measured in kilometers from the Golden Gate Bridge) of 2 parts per thousand total dissolved solids. The length of time X2 must be positioned at set locations in the estuary each month is determined by a formula that considers the previous month's inflow to the Delta and a "Level of Development" factor, denoted by a particular year. X2 is currently used as the primary indicator in managing Delta outflows. The X2 indicator is also used to reflect a variety of biological consequences related to the magnitude of fresh water flowing downstream through the estuary and the upstream flow of salt water in the lower portion of the estuary. The outflow that determines the location of X2 also affects both the downstream transport of some organisms and the upstream movement of others and affects the overall water operations of the SWP and CVP. |

# ABBREVIATIONS

| | |
|---|---|
| AB | Assembly Bill |
| ADA | Americans with Disabilities Act |
| ADEIR | Administrative Draft EIR |
| AF | acre-feet |
| AFY | acre-feet per year |
| amsl | above mean sea level |
| ANN | Artificial Neural Network |
| BCAG | Butte County Association of Governments |
| BCAPCD | Butte County Air Pollution Control District |
| BDCP | Bay-Delta Conservation Plan |
| BMP | best management practice |
| BP | before present |
| Cal EPA | California Environmental Protection Agency |
| Cal-OSHA | California Occupational Safety and Health Administration |
| Caltrans | California Department of Transportation |
| CALVIN | California Value Integrated Network |
| CARB | California Air Resources Board |
| CBC | California Building Code |
| CCR | California Code of Regulations |
| CCWA | Central Coast Water Agency |
| CCWD | Contra Costa Water District |
| cfs | cubic feet per second |
| CERCLA | Comprehensive Environmental Response Compensation and Liability Act |
| CESA | California Endangered Species Act |
| CEQA | California Environmental Quality Act |
| CDFG | California Department of Fish and Game |
| CDPR | California Department of Parks and Recreation |
| CEA | Capacity Exchange Agreement |
| CEC | California Energy Commission |
| CFC | chlorofluorocarbon |
| CFR | Code of Federal Regulations |
| CFS | cubic feet per second |
| CH4 | methane |
| CHP | California Highway Patrol |
| CHRIS | California Historic Resources Information System |
| Cl | Chloride |
| CMA | Congestion Management Agency |
| CMP | Congestion Management Program |
| CNDDB | California Natural Diversity Database |
| CNEL | Community Noise Equivalent Level |
| CNPA3 | Court-Ordered No Project Alternative 3 |
| CNPA4 | Court-Ordered No Project Alternative 4 |
| CNPS | California Native Plant Society |
| CO | Carbon Monoxide |
| COA | Coordinated Operating Agreement |
| Corps | United States Army Corps of Engineers |
| CRHR | California Register of Historic Resources |
| CTC | California Transportation Commission |
| CUPA | California Unified Program Agency |
| CVMod | Central Valley Model |
| CVP | Central Valley Project |
| CVPIA | Central Valley Project Improvement Act |

| | |
|---|---|
| CWA | Clean Water Act |
| CWC | California Water Code |
| dB | Decibel |
| dBA | A-weighted decibel |
| DEIR | Draft Environmental Impact Report |
| Delta | Sacramento-San Joaquin River Delta |
| Department | California Department of Water Resources |
| DOT | United States Department of Transportation |
| DPR | California Department of Parks and Recreation |
| DRMS | Delta Risk Management Study |
| DSA | depletion study area |
| DSM2 | Delta Simulation Model |
| DSS | Delta Storage System |
| DWR | California Department of Water Resources |
| DWSP | Delta Water Supply Project |
| EC | Electrical Conductivity |
| EF | energy factor |
| EHD | Environmental Health Division |
| EHSD | Environmental Health Services Department |
| E/I | export/Delta inflow |
| EIR | Environmental Impact Report |
| EIS | Environmental Impact Statement |
| EMBUD | East Bay Municipal Utilities District |
| EPA | United States Environmental Protection Agency |
| ERP | Ecosystem Restoration Program |
| EWA | Environmental Water Account |
| FCD | Flood Control District |
| FC&WCD | Flood Control and Water Conservation District |
| ft | feet |
| FEIR | Final Environmental Impact Report |
| FERC | Federal Energy Regulatory Commission |
| FESA | Federal Endangered Species Act |
| FGC | Fish and Game Code |
| FMWT | fall mid-water trawl |
| FONSI | Finding of No Significant Impact |
| GCM | General Circulation Model |
| GHG | greenhouse gas |
| GPCPD | gallons per capita per day |
| GW | giga-watts |
| GWh | Giga-Watt hours |
| HCP | Habitat Conservation Plan |
| HSC | Health and Safety Code |
| HWCL | Hazardous Waste Control Law |
| I-5 | Interstate 5 |
| ID | Irrigation District |
| IEP | Interagency Ecological Program |
| IPCC | Intergovernmental Panel on Climate Change |
| JPOD | Joint Point of Diversion |
| KCOG | Kern Council of Governments |
| KCWA | Kern County Water Agency |
| KFE | Kern Fan Element |
| kW | kilowatt |
| KWB | Kern Water Bank |
| KWBA | Kern Water Bank Authority |
| LADWP | Los Angeles Department of Water and Power |
| LBNL | Lawrence Berkeley National Laboratory |
| LPOC | Lake Perris Operations Committee |
| LPSRA | Lake Perris State Recreation Area |
| M&I | Municipal and Industrial |
| MCAG | Merced County Association of Governments |

| | |
|---|---|
| MCL | maximum contaminant level |
| Metro | Los Angeles County Metropolitan Transportation Authority |
| mgd | million gallons per day |
| mg/l | milligram per liter |
| MID | Madera Irrigation District |
| MMP | Mitigation Monitoring Program |
| MOU | Memorandum of Understanding |
| MPH | Miles Per Hour |
| MSHCP | Multiple Species Habitat Conservation Plan |
| MTBE | Methyl tertiary-butyl ether |
| MWD | Metropolitan Water District |
| MWDSC | Metropolitan Water District of Southern California |
| mya | million years ago |
| NCCP | Natural Community Conservation Plan |
| NHI | Natural Heritage Institute |
| NIH | National Institutes of Health |
| NMFS | National Marine Fisheries Service |
| NOAA | National Oceanic and Atmospheric Administration |
| NOD | Notice of Determination |
| NOP | Notice of Preparation |
| $NO_x$ | Nitrogen Oxides |
| NPA1 | No Project Alternative 1 |
| NPA2 | No Project Alternative 2 |
| NPC | Nevada Power Company |
| NPDES | National Pollutant Discharge Elimination System |
| NRC | Nuclear Regulatory Commission |
| NRCS | National Resources Conservation Services |
| NRHP | National Register of Historic Places |
| NSVAB | Northern Sacramento Valley Air Basin |
| O3 | ozone |
| OCAP | Operations Criteria and Plan |
| OCO | Operations Control Office |
| OES | Office of Emergency Services |
| OPR | Governor's Office of Planning and Research |
| PCL | Planning and Conservation League |
| PCWA | Placer County Water Agency |
| PIER | Public Interest Energy Research |
| $PM_{10}$ | Particulate Matter |
| POD | Pelagic Organism Decline |
| PRC | Public Resources Code |
| PRMS | Precipitation-Runoff Modeling System |
| PUC | Public Utilities Commission |
| QSA | Quantification Settlement Agreement |
| RBDD | Red Bluff Diversion Dam |
| RCHCA | Riverside County Habitat Conservation Agency |
| RCRA | Resource Conservation and Recovery Act |
| RCTC | Riverside County Transportation Commission |
| Reclamation | United States Bureau of Reclamation |
| ROD | Record of Decision |
| ROG | Reactive Organic Gasses |
| RPA | Register of Professional Archaeologists |
| SAWA | Santa Ana Watershed Association |
| SCAB | South Coast Air Basin |
| SCAQMD | South Coast Air Quality Management District |
| SCE | Southern California Edison |
| SDIP | South Delta Improvement Program |
| SDWA | Safe Drinking Water Act |
| SEIS | Supplemental Environmental Impact Statement |
| SHOPP | State Highway Operations and Protection Program |
| SIP | State Implementation Plan |

| | |
|---|---|
| SJVAB | San Joaquin Valley Air Basin |
| SJVAPCD | San Joaquin Valley Air Pollution Control District |
| $SO_x$ | Sulfur Oxides |
| SR | State Route |
| SRA | State Recreational Area |
| SSWD | Sacramento Suburban Water District |
| SVWMP | Sacramento Valley Water Management Program |
| SWP | State Water Project |
| SWRCB | California State Water Resources Control Board |
| SWSD | Semitropic Water Storage District |
| TAC | Toxic Air Contaminant |
| TAF | Thousand acre-feet |
| TDF | Through-Delta Facility |
| TIP | Transportation Improvement Plan |
| TMDL | Total Maximum Daily Load |
| TNS | townet survey |
| TSM | Transportation System Management |
| UBC | Uniform Building Code |
| UCR | University of California, Riverside |
| USGS | United States Geological Survey |
| USC | United States Code |
| USDA | United States Department of Agriculture |
| USFWS | United States Fish and Wildlife Service |
| UWMP | Urban Water Management Plan |
| VAMP | Vernalis Adaptive Management Program |
| VdB | Vibration decibel |
| VIC | Variable Infiltration Capacity |
| VOC | volatile organic carbons |
| WA | Water Authority or Water Agency |
| WD | Water District |
| WQCP | Water Quality Control Plan |
| WSD | Water Service District or Water Storage District |

# 1. INTRODUCTION

# 1. INTRODUCTION

## Introduction

The Department of Water Resources (Department) circulated the Monterey Amendment to the State Water Project (SWP) Contract (including Kern Water Bank Transfer) and Associated Actions as Part of a Settlement Agreement (Monterey Plus or proposed project) Draft Environmental Impact Report (DEIR) for public and agency comment between October 15, 2007 and January 14, 2008. During the comment period, the Department held public hearings in Quincy, Sacramento, Ventura, and Bakersfield on November 29, December 3, 4, and 5, 2007, respectively. At the end of the circulation period for the DEIR, a total of 631 written comment letters and e-mails were received addressing the content and analysis in the DEIR. Of this total, 572 of the e-mails received contained a form letter with similar to identical concerns. In addition, oral comments were made at the public hearings on the DEIR. These oral comments were transcribed. See Appendix A for comments received on the DEIR.

This document is the Final EIR (FEIR) for the proposed project and it contains written responses to all written and oral comments received by the Department from agencies and the public on the adequacy of the DEIR, and revisions to the DEIR made in response to comments and staff review. The responses are organized by topic area (see FEIR Chapters 4 through 16). Because multiple comments were received with respect to most key issues, the Department prepared comprehensive responses addressing all comments relating to each substantive issue within each topic area (master responses). Each of these master responses provides some background regarding the specific issue, how the issue was addressed in the DEIR, and additional clarification and explanation as appropriate in response to the concerns raised in the comments. Individual responses to each comment received are also included in the Chapters of the FEIR. A matrix identifying where individual comments are addressed in this FEIR is presented in Chapter 3. The responses to comments correct, clarify, and amplify text in the DEIR, as appropriate and do not alter the conclusions of the DEIR.

This FEIR document has been prepared in accordance with the California Environmental Quality Act (CEQA) and together with the DEIR (and Appendices) constitutes the EIR for the proposed project.

## Summary of Project Objectives and Proposed Project

### Project Objectives

The overall objective of the proposed project is to resolve the underlying issues that led to the Monterey Amendment and implement the Settlement Agreement. Specific objectives of the Monterey Amendment are to:

- Resolve conflicts and disputes among SWP contractors regarding water allocations and financial responsibilities for SWP operations;
- Restructure and clarify procedures for SWP water allocation and delivery during times of shortage and surplus;

- Reduce financial pressures on agricultural contractors in times of drought and supply reductions;
- Adjust the financial rate structure of the SWP to more closely match revenue needs;
- Facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies;
- Resolve legal and institutional issues related to storage of SWP water in Kern County groundwater basins, and in other areas;

The Monterey Agreement provided in Principle 13 that the proposal was an integrated package. Contractors had to choose to participate in all the provisions of the Agreement or none. In other words, the Monterey Amendment resulted from a package deal of negotiated concessions that required achieving all of the above objectives in order to settle significant disputes among the contractors. Both agricultural and M&I contractors gave up rights or benefits to make the agreement work. Both had to also gain new rights or benefits or there would have been no reason to sign the agreement. The reasons for signing may have been different for each contractor, but each one had to believe that it would benefit from the changes as a whole.

Specific objectives of the Settlement Agreement are to:

- Communicate SWP supply reliability information to SWP contractors and local planning jurisdictions and clarify related SWP contract language;
- Enhance public review of SWP contract amendments and public participation in environmental review;
- Provide assurances regarding finality of certain Table A transfer and transfer of title to the Kern Fan Element land and assurances regarding environmental protection of Kern Fan Element lands.
- Increase SWP watershed enhancement activities in Plumas County and improve Plumas County's access to SWP water.
- provide funding to plaintiffs to implement the Settlement Agreement including watershed restoration projects

While the Settlement Agreement does not have the same language that the Monterey Agreement had with regard to an integrated package, the Settlement Agreement also was a package deal of negotiated concessions that required achieving all of the above objectives in order to settle significant disputes between the parties. Thus to fulfill the intent and purpose of the project, it is essential that all of the above objectives are achieved.

## Proposed Project

The proposed project consists of the Monterey Amendment and the Settlement Agreement. The primary elements of the Monterey Amendment are:

- Altered water allocation procedures. Shortages and surpluses would be shared among contractors in proportion to their Table A amounts. During shortages, agricultural contractors would no longer be subject to cuts in supply before municipal contractors;

- Permanent transfers of Table A amount. Agricultural contractors would transfer 130,000 acre-feet (AF) of Table A amount to municipal contractors and 45,000 AF of Table A amount would be permanently retired;
- Transfer of ownership of approximately 20,000 acres of land known as the Kern Fan Element (KFE) from the Department to Kern County Water Agency (KCWA);
- Facilitation of several water supply management practices including storage of SWP water outside contractors' service areas, borrowing of water by contractors from Castaic Lake and Lake Perris, and establishment of a turnback pool to promote transfers of SWP water from contractors with excess allocated Table A amounts to contractors with a need for water; and
- Restructuring of rates for financing the SWP and using its facilities, including the establishment of a trust fund to help agricultural contractors meet their SWP financial obligations during water shortages.

The primary elements of the Settlement Agreement are:

- Better information on SWP reliability by substituting "Table A amount" for "entitlement" in the SWP contracts and by implementing new procedures for disclosure of SWP delivery reliability;
- More public review of major SWP actions by issuing guidelines for review of permanent transfers of Table A amounts, and issuing principles for public participation in negotiations for project-wide long-term water supply contract amendments and Table A transfers;
- Table A transfers completed prior to the Settlement Agreement would remain in place;
- Assurance regarding the KFE transfer including confirmation of title to KFE Lands; placement of restrictions on the use of KFE Lands; and an independent study of some Kern Water Bank (KWB) operations;
- Establishment of a watershed forum and funding for Plumas County Flood Control and Water Conservation District (Plumas County) to pursue watershed restoration, and amendment of Plumas County's SWP contract with respect to allocation to SWP water; and
- Providing specified amounts of funding to the plaintiffs for multiple purposes.

## Summary of EIR Analysis and Conclusions

### Intended Use of the EIR

This EIR evaluates elements of the proposed project at both project (requiring no further CEQA review or subsequent action) and program (requiring subsequent CEQA review and action) levels; therefore, the EIR serves as both a Project EIR and a Program EIR under CEQA. Specific actions that were identified in the DEIR as not requiring any subsequent decision or action to implement include:

- Revisions to the methodology used to allocate water among SWP contractors;
- Permanent retirement of 45,000 acre feet of agricultural Table A Amounts;
- Transfer of the property known as the "KFE property";

- Changes in the manner in which Castaic Lake and Lake Perris may be operated (flexible storage); and
- Certain water supply management practices.

Of the water supply management practices, flexible storage and the turnback pool are covered in their entirety by this EIR and need no further CEQA coverage. Out-of-service-area storage would not require additional CEQA coverage for banking in facilities already covered by CEQA, such as continued banking in existing water banks by SWP contractors. However, banking in new water bank facilities would require the bank owner to provide CEQA coverage for the development and operation of the bank, and SWP contractors may need to comply with CEQA as part of approval of their banking activities. Certain short-term transfer activities may require CEQA coverage of the transfer, and the Department may rely on that CEQA coverage in approving conveyance in its facilities pursuant to Article 55. As described in Chapter 1 of the DEIR (page 1-2), other project components may need additional environmental documentation. The appropriate lead agency will make that determination when it is ready to approach the CEQA decision-maker process. To the extent appropriate, later environmental documents may use information in this EIR to provide CEQA-required information. The DEIR gave additional permanent transfers of Table A water and development of specific contractor out-of-service area programs as examples of actions that will continue to be the subject of project-specific environmental documentation of local impacts. The DEIR also stated that neither the Department nor local water supply agencies make local decisions regarding growth and where it will occur. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. Where appropriate, they must consider mitigation measures, alternatives, and overriding considerations.

## Summary of EIR Conclusions

The following summary presents the findings and conclusions of the EIR analysis. This summary updates the environmental impact summary contained in the Executive Summary of the DEIR (pages ES-4 throughES-9) based on responses to comments in the FEIR. Changes to DEIR Table ES-1 are presented in Chapter 2. This summary updates and clarifies the text in the DEIR Executive Summary, as appropriate and it does not alter the conclusions of the DEIR.

The EIR evaluates and discloses potentially direct, indirect, and cumulative impacts of the proposed project; identifies alternatives that may reduce or eliminate the proposed project's significant effects; and identifies feasible mitigation measures that mitigate significant effects of the proposed project. In addition, the EIR identifies adverse impacts that remain significant after mitigation.

The EIR analysis concluded that the proposed project would not result in any significant impacts between 1996 and 2003. In the future (2003 through 2020), the proposed project would have less than significant direct impacts on surface water hydrology, water quality and water supply, groundwater, agricultural resources, land use and planning, hazards and hazardous materials, noise, public services and utilities, traffic and transportation, and energy.

The EIR found that some of the water supply management practices could have a small but potentially significant impact on fisheries resources in the Delta. The Department has determined that its commitment to continue to operate the SWP facilities in compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR (Section 7.3) and in the FEIR (Section 7.2) will minimize, avoid and/or reduce potential effects on the Delta aquatic environment from the proposed project now and in the future to a

less than significant level (see FEIR Section 7.2). The Department has determined that relying on the requirements of the existing regulatory process is not improper deferral of mitigation. The EIR also found that, although it was unlikely, two of the water supply management practices, flexible storage and storage outside the service area, could have potentially significant unavoidable impacts on terrestrial biological resources, visual resources, air quality, geology, soils and mineral resources, recreation, and cultural resources and the watershed improvement programs in Plumas County could have potentially significant unavoidable impacts on cultural resources.

The EIR also addresses climate change. As explained on pages 12-1 through 12-2 of the DEIR, the Department acknowledges and recognizes the role of greenhouse gas emission (GHG) in contributing to potential climate changes around the globe. As described on DEIR page12-14 and FEIR Chapter 12, the proposed project could result in some added GHG emissions as a result of post-Amendment SWP operations. The generation of power to supply the added pumping at SWP facilities would require additional consumption of energy from power plants in the western U.S. that emit GHGs (see DEIR Section 7.16 and FEIR Section 7.8). The Department is addressing these impacts through mitigation to reduce the Department's GHG emissions and adaptation measures to ensure an adequate water supply and flood protection now and in the future.

The DEIR determined that increases in water deliveries to some M&I contractors and storage of water outside of the contractor service area (FEIR Subsection 8.2.4) could support additional growth. Some of the impacts that can result from additional growth are potentially significant and cannot be avoided. The FEIR clarifies some of the data regarding growth-inducing impacts and the determination that cities and counties in the contractor service areas affected by increased population are responsible for making fundamental decisions about land use and growth and considering the environmental effects of their growth and land use planning decisions (see FEIR Chapter 8).

The SWP has been operated for over 12 years since 1996 pursuant to long-term water supply contracts that include the Monterey Amendment. Four versions of the no project alternative and one additional alternative were examined in the DEIR (see DEIR Chapter 11). Multiple No Project Alternatives were evaluated because of disagreement and uncertainty over how to characterize continued operation of the SWP in accordance with the pre-Monterey long-term water supply contracts. These versions include two that involve invocation of Article 18(b) as required by the court in PCL v. DWR. See FEIR Subsection 11.2.1. An additional alternative, Alternative 5, does not include the water supply management practices described in Articles 54 (flexible storage) and 56 storage outside the service area) of the Monterey Amendment that are the cause of most of the potentially significant adverse impacts of the proposed project. As discussed in DEIR Chapter 11 and on DEIR Executive Summary pages ES 8 and ES9, under No Project Alternative 1 (NPA1), none of the significant impacts identified for the proposed project would occur. Under Court Ordered Alternatives 3 and 4 (CNPA3 and CNPA4) and Alternative 5, significant and unavoidable impacts attributed to new outside-service-area storage and implementation of Article 54 would not occur. No Project Alternative 2 (NPA 2) would result in similar, but less in magnitude significant and unavoidable impacts attributed to new outside-service-area storage because no new storage would occur beyond what was in place in 2003. Under NPA 2, impacts attributed to Article 54 implementation would not occur. NPA1 would not meet any of the project objectives, and NPA2, CNPA3, CNPA4 and Alternative 5 would meet some but not all of the project objectives.

In addition to the alternatives evaluated in the DEIR, the Department compiled a broad range of candidate alternatives to the proposed project for consideration; but these were rejected from analysis because they failed to meet one or more of the screening criteria (see DEIR and FEIR Chapter 11). The Department believes that the alternatives analyzed provide a reasonable range of information on choices that might have been made or could be made, and that the analyses are useful to the public and decision-makers. See FEIR Subsection 11.2.1.

## Document Organization

The FEIR is organized as follows:

**Chapter 1 – Introduction:** This chapter summarizes the project under consideration and describes the contents and organization of the FEIR.

**Chapter 2 – Summary of Text Changes to the DEIR:** This chapter summarizes the text changes to the DEIR. These revisions are in response to comments made on the DEIR and/or staff-initiated text changes. Changes to the text of the DEIR are shown by either a line through the text (strike out) that has been deleted and/or a double underline where new text has been inserted. The revisions contain clarification, amplification, and corrections that have been identified since publication of the DEIR. The text revisions do not result in substantive changes in the analysis and conclusions presented in the DEIR.

**Chapter 3 – Response to Comment Matrix:** This chapter provides a matrix of all of the comments received on the DEIR and indicates where responses to each of the comments can be found within the FEIR. This chapter also contains a list of all of the agencies or persons who submitted comments on the DEIR during the public review period, ordered by agency, organization, individual and date.

**Chapters 4 through 16 – Responses to Comments:** These chapters contain the responses to comments submitted during the public review period. The chapters (and/or sections) are presented by topic consistent with the DEIR and are organized as follows:

Introduction – a summary of the primary issue areas covered by the comments and addressed by the responses. The introduction also identifies the organization of the chapter/section and lists all the comments addressed.

Master Response - where similar topics were identified in multiple comments that can be addressed by the same response a Master Response is prepared. The specific comments addressed by the Master Response are identified.

Responses to Individual Comments – each chapter includes responses to all comments received on the topic area. Responses are numbered to correspond with the comments delineated in the comment letters included in Chapter 18. For example, Response to Comment 1-1 is the response for Comment 1 in Letter 1 (Comment 1-1). Where comments are addressed by a Master Response and/or by responses to other comments references are provided.

Summary of Text Changes to DEIR – Where changes to text occur, they are included in the response to a particular comment. In a few cases where numerous text revisions were prepared for a chapter or section of the DEIR, a summary of text changes subsection is provided. All text changes are also shown in Chapter 2 of the FEIR.

**Chapter 17 – Miscellaneous Comments:** This chapter contains responses to two kinds of comments: (1) responses to comments that did not fit within any of the categories identified in Chapters 4 through 16; and (2) responses to comments that presented a variety of similar topics that could be responded to by a Master Response that did not fit within any one category identified in Chapters 4 through 16.

**Chapter 18 – References:** This chapter contains the documents used to prepare the FEIR.

**Appendices:** This section includes documentation and technical information referenced in the FEIR. In addition, the Settlement Agreement provides a process in Section III(H) whereby members of the EIR Committee may choose to refer any issue relating exclusively to the compliance of the new EIR with requirements of CEQA, the direction of the courts in PCL v DWR, and the Settlement Agreement (mediation issues) to the Director for his consideration and, thereafter, to a mediator for non-binding advice. Plaintiffs referred a number of issues to the Director in a letter dated August 13, 2009, to which the Director responded on August 31 and October 15, 2009. The SWP contractor members of the EIR Committee did not refer any issues to the Director, but provided comments on the plaintiffs' August 13, 2009 letter. Although not part of the EIR these documents relating to a referral under Section III(H) of the Settlement Agreement are included for information purposes in Appendix G of this FEIR.

## Public Participation and Review

The Department notified all responsible and trustee agencies and interested groups, organizations, and individuals that the DEIR on the proposed project was available for review. The following list of actions took place during the preparation, distribution, and review of the DEIR:

- A Notice of Preparation (NOP) for an EIR was filed with the State Clearinghouse in January 2003. The 30-day public review comment period for the NOP ended in February 2003.
- Public scoping meetings for the EIR in February 2003 in Sacramento, Riverside, Ventura, Bakersfield, and Quincy.
- A Notice of Completion (NOC) and copies of the DEIR were filed with the State Clearinghouse on October 15, 2007 with an ending period of December 13, 2007. The Department extended the public review period to a period of 90-days, ending on January 14, 2008.
- Public hearings to receive comments on the DEIR were held in Quincy, Sacramento, Ventura, and Bakersfield on November 29, December 3, 4, and 5, 2007, respectively.
- Copies of the DEIR were available for review by request from the Department, on the Department's website, and at the following libraries:

  Kern County Library System
  701 Truxtun Avenue
  Bakersfield, CA 93301-4816
  Phone: (661)868-0770
  Fax: (661)868-0799

Fresno County Public Library
2420 Mariposa Street
Fresno, CA 93721-2285
Phone: (559)488-3195
Fax: (559)488-6735

Orange County Public Library
Garden Grove Regional Branch
11200 Stanford Avenue
Garden Grove, CA 92840-5318
Phone: (714)530-0711
Fax: (714)530-0961

Los Angeles Public Library Central Library
630 West 5th Street
Los Angeles, CA 90071-2002
Phone: (213)228-7000
Fax: (213)228-7309

Napa City-County Library
580 Coombs Street
Napa, CA 94559-3340
Phone: (707)253-4235
Fax: (707)253-4615

Riverside Public Library
3581 Mission Inn Avenue
Riverside, CA 92501-0468
Phone: (909)826-5212
Fax: (909)788-1528

California State Archives
1020 O Street
Sacramento, CA 95814
Phone: (916)653-2246
Fax: (916)653-7363

Sacramento Public Library Central Library
828 I Street
Sacramento, CA 95814-2589
Phone: (916)264-2920
Fax: (916)264-2988

San Diego Public Library Central Library
820 E Street
San Diego, CA 92101-6478
Phone: (619)236-5813
Fax: (619)236-5814

San Francisco Public Library
100 Larkin Street
San Francisco, CA 94102-4705
Phone: (415)557-4500
Fax: (415)557-4475

Public Library of Stockton and San Joaquin County
605 North El Dorado Street
Stockton, CA 95202
Phone: (209)937-8221
Fax: (209)937-8547

Tulare County Free Library
200 West Oak
Visalia, CA 93291
Phone: (559)733-6954

San Luis Obispo City-County Library
995 Palm St.
San Luis Obispo, CA 93401
Phone: (805)781-5989

## CEQA Certification and Project Approval

Section 15090(a) of the CEQA Guidelines states that "prior to approving a project, the lead agency shall certify (1) that the final EIR has been completed in compliance with CEQA; 2) that the final EIR was presented to the decision-making body of the lead agency and that the decision-making body reviewed and considered the information contained in the final EIR prior to approving the project; and (3) the final EIR reflects the lead agency's independent judgment and analysis".

This EIR will be used primarily by the Department as the lead agency, and the SWP contractors as responsible agencies, to decide whether to continue operating under the proposed project or to decide to implement one of the alternatives to the proposed project. The Department will evaluate the proposed project's environmental impacts measured against the baseline, contrast those with the impacts under the alternatives and consider, where appropriate, mitigation measures. As part of its overall consideration, the Department will also review legal, economic and social impacts. Upon completion and certification of this EIR, the Department will make written findings and decisions, adopt a Mitigation Monitoring and Reporting Program (MMRP) and file a Notice of Determination (NOD).

Although federal and state agencies have regulatory authority that affects operation of components of the proposed project, no separate permits are required for project approval. Some of the components that require subsequent actions or decisions to implement may need separate permits. For example, the KWB is subject to a Habitat Conservation Plan (HCP), and certain actions addressed in the Settlement Agreement involve actions in Plumas County that may require added local decisions.

# 2. CHANGES TO THE DRAFT EIR TEXT, FIGURES, AND TABLES

# 2. CHANGES TO THE DRAFT EIR TEXT, FIGURES, AND TABLES

## Introduction

This chapter presents minor corrections and revisions made to the DEIR initiated by the public, staff, and/or consultants based on their on-going review. New text is indicated in a double underline and text to be deleted is reflected by a ~~strike through~~. Text changes are presented in the page order in which they appear in the DEIR.

The changes identified below are clarifications or amplification of the information and analysis contained in the DEIR. The changes are organized by appearance in order in which they appear in the DEIR. None of the changes identified below results in a significant impact that was not already identified in the DEIR. Furthermore, none of the impacts identified in the DEIR were found to be substantially more severe as the result of the following changes. For these reasons, recirculation of the DEIR is not warranted.

## Executive Summary

Page ES-2, the third bullet from the bottom is revised to read:

- altered water allocation procedures. Shortages and surpluses would be shared among contractors in proportion to their Table A amounts. During shortages, agricultural contractors would no longer be subject to cuts in supply before municipal contractors~~;~~. During surplus water conditions, agricultural contractors would no longer receive first priority to use of surplus water.

Page ES-8, the first paragraph is revised to read:

> However, even if a "paper water" problem did arise from land use planners relying on the Table A amounts, the passage of SB 610 and 221 and the publishing of the biennial State Water Project Delivery Reliability Report have led to better information dissemination to local planners regarding the reliability of SWP supplies. The State Water Project Delivery Reliability Report is not only made available to local planners, it is distributed to all city, county, metropolitan, and regional planning departments within the SWP service area. Further, it is available to the public from the Department's website: http://baydeltaoffice.water.ca.gov/swpreliability. Thus, the elimination of Article 18(b) by the proposed project would not have an effect on urban growth and would not create a continued "paper water" problem because land use planners either do not consider SWP water supplies when approving growth at the General Plan level, or have more detailed SWP delivery information available to them to consider at the development approval level.

Page ES-37, Table ES-1, Impact 7.8-3. The second sentence is not accurate and should be revised to read:

> Between 1996 and 2003, an additional ~~1,665~~ 4,080 acres were converted to shallow percolation ponds.

Page ES-39, Mitigation Measure 7.9-1(c) is revised to read:

c) *The Department shall monitor water quality during drawdown periods and when swimming is allowed using the current full-body contact criteria and laboratory methods adopted by the California Department of Public Health ~~Services~~ or the U.S. Environmental Protection Agency, as applicable.*

Page ES-47, Table ES-1, Impact 7.13-3 is revised to read:

From 1996-2003, mitigation measures were adopted to ensure that if previously unidentified archaeological resources were discovered during construction activities, that work would cease and a qualified archaeologist would examine the discovery and make recommendations for appropriate data recovery. Therefore, the proposed project related transfer of land in the Kern Fan Element to the Kern County WA is considered to have had a less than significant impact on cultural and paleontological resources. In the future, the ~~water supply management practices would encourage the development of groundwater banks in the Kern Fan Element. Construction of percolation ponds and other facilities as part of the groundwater banks~~ proposed project could encourage land use changes on Kern Water Bank Lands. Any construction activities associated with construction of additional percolation ponds and groundwater bank facilities or land use changes could result in damage and/or destruction of cultural and paleontological resources.

Page ES-54, Table ES-1, under the heading "Groundwater Hydrology and Water Quality," the last sentence is revised to read:

Groundwater basin storage projects would raise groundwater levels ~~most of the time with a reduction in levels during extended droughts~~in some groundwater subbasins in Kern County as a result of storage of water in the KWB and storage of SWP water by contractors outside their service areas and thus would have a modestly beneficial effect.

## Chapter 2 State Water Project

Page 2-11, second paragraph, the following text is added to the last sentence:

In recent years, for operations and planning purposes, the concept of firm yield has been replaced with water delivery reliability curves which show the likelihood of water deliveries by the SWP in any year given the range of historical hydrologic events and current storage conditions.

Page 2-15, first paragraph, the last sentence is deleted:

The fall 1991 Storage Program entailed the delivery of 200,000 AF of water from San Luis Reservoir to M&I contractors for storage in local reservoirs or groundwater basins. ~~The water was made available from October through December 1991 due to high storage in SWP reservoirs.~~

Page 2-15, second paragraph, the following text is added to the second-to-last sentence:

Water was purchased from three sources: 1) surplus water in non-SWP surface reservoirs; 2) additional pumping of groundwater in exchange for a like amount of existing surface supplies; and 3) fallowed agricultural lands. In 1992, the Department

purchased almost 200,000 AF of water and approximately 222,000 AF of water in 1994, on behalf of individual SWP contractors and non-SWP water users.

Page 2-19, first paragraph, the following text is added to the second-to-last sentence:

Under the transportation charge, the more distant contractors pay a higher charge than those located near the water ~~source~~ export location in the Sacramento-San Joaquin Delta. In addition to repayment by SWP water contractors, the federal government has paid for a portion of the facilities built by the SWP for flood control.

## Chapter 3 History and Background

Page 3-4, the following text is added to the first bullet:

- provide for permanent sales of agricultural and Table A amounts to M&I contractors, and permanent retirement of agricultural Table A amounts,

Page 3-4, following text is added to the last bullet:

- provide Department approval and rules for storing water outside a contractor's service area.

## Chapter 4 Proposed Project

Page 4-5, third paragraph, the second-to-last sentence is revised to read:

For signers of the Monterey Amendment, Article 21 water is allocated among contractors when requests for this water exceed the supply of Article 21 water available, in proportion to each requesting SWP contractor's annual Table A amount. ~~when the SWP's share of San Luis Reservoir is full, or projected to be full in the near term; other SWP reservoirs are full or at their storage targets, or the conveyance capacity to fill these reservoirs is maximized; the Delta is in "excess" condition (see Chapter 6); Table A deliveries are being fully met; and the Banks Pumping Plant has spare capacity.~~

Page 4-6, second paragraph, first sentence is revised to read:

The result of these contractual changes is that the Department now allocates Table A and interruptible water among contractors in proportion to annual Table A amounts, up to a contractor's request for this water, without consideration of whether the water would be used for M&I or agricultural purposes ~~and without consideration of contractor's actual Table A demand~~.

Page 4-6, third paragraph, second sentence is revised to read:

Article 53, which references Article 41, provides that agricultural contractors, namely County of Kings, Dudley Ridge WD, Empire West ID, KCWA, Oak Flat WD, and Tulare Lake WSD, will make available 130,000 AF~~acre-feet~~ of Table A amounts and related transportation capacity, for permanent transfer to M&I contractors or non-contractors pursuant to Article 41 of the SWP contracts on a willing buyer and willing seller basis.

Page 4-9, second paragraph, the third sentence is revised to read:

> The complete Settlement Agreement is contained in Appendix ~~E~~D.

Page 4-11, third full paragraph, the third sentence is revised to read:

> The transfers are listed in Table 6-4~~3~~.

## Chapter 5 Methods

Page 5-1, fourth paragraph, second sentence is revised to read:

> In the case of the Monterey Amendment, a decision to continue the current implementation of the Monterey Amendment, continue the current implementation with mitigation measures, or revert to ~~one of the~~ a possible no project alternative~~s~~ requires consideration of the impacts of the proposed project as compared to the appropriate baseline.

Page 5-2, partial paragraph at top of page, the second-to-last sentence is revised to read:

> The Table A transfers include transfers from MWDSC to Coachella Valley WD and Desert WA pursuant to the Colorado River ~~Quantitative~~ Quantification Settlement Agreement and transfers from Tulare Lake Basin WD to other SWP contractors.

Page 5-6, Table 5-2 is revised as follows:

**TABLE 5-2**

**ANALYTICAL STUDIES**

| Study | Method | Purpose |
|---|---|---|
| Study No.1 - Historical Allocation Analysis (DEIR Appendix I) | Analysis of historical Table A allocations ~~operations~~ data from 1996~~5~~-2005 | Estimate allocation of Table A water to SWP contractors if Monterey Amendment had not been implemented 1996-2005 |
| Study No. 2 – Historical Operations Analysis (DEIR Appendix K) | Analysis of historical operations data from 1996-2004 | Estimate effects of most Monterey Amendment provisions on SWP deliveries and Delta pumping 1996-2004~~5~~ |
| Study No. 3 – Historical Operations Analysis (DEIR Appendix K) | Analysis of historical operations data from 1996-2004 | Estimate effects of water supply management practices on SWP deliveries and Delta pumping 1996-2004 for extrapolation to ~~under~~ 2020 conditions |
| Study No. 4 - Water Allocation Modeling (DEIR Appendix F) | CALSIM II and post-processing of CALSIM II output | Estimate deliveries of water to SWP contractors as a result of altered water allocation procedures and transfers and retirements of Table A amounts under 2003 and 2020 conditions |
| Study No. 5 - River/Delta Flow Analysis (DEIR Appendix H) | CALSIM II and spreadsheet analysis | Estimate effects of altered water allocation procedures and transfers and retirements of Table A amount on river flow and Delta outflow under 2003 and 2020 conditions |
| Study No. 6 - JPOD Analysis (DEIR Appendix L) | Historical operations analysis, CALSIM II and spreadsheet analysis | Estimate effects of Monterey Amendment on Joint Point of Diversion (Cooperative use of CVP and SWP Delta pumping facilities). |
| Study No. 7 – Environmental Water Account Analysis (DEIR Appendix M) | Analysis of historical operations from 1996-2004 | Estimate effects of Monterey Amendment on Environmental Water Account |

Page 5-9, second paragraph, the third and fourth sentences are revised to read:

> As in Study No. 2, the analysis used actual contractor demands and deliveries to groundwater storage facilities during the period 1996 through 2004. Therefore, the analysis is conservative in that it does not account~~ed~~ for the increasing ~~water~~ demands of SWP contractors~~,~~ or the probable increase in available groundwater storage south of the Delta, and it also assumes a ~~the likely~~ reduction in availability to the contractors of storage other than groundwater storage outside their service area. Estimates of future pumping from the Delta at the Banks Pumping Plant were assumed to be ~~made in a~~ similar to the estimates resulting from this analysis for the period 1996 to 2004.

Page 5-9, third paragraph, the second sentence is revised to read:

> The proposed project allows those contractors that were participating in the repayment of these reservoirs to withdraw up to about 50 percent of the total storage capacity of ~~volume of water in~~ the reservoir, subject to Department delivery schedule, approval, and contractual requirements to replace the water within five years.

## Chapter 6 Effects of Proposed Project on SWP and SWP Contractor Operations

Page 6-2, second paragraph, the second-to-last sentence is revised to read:

> This diversion rate is normally restricted to 6,680 cfs as a three-day average inflow to Clifton Court Forebay, although at times of high San Joaquin River flows, the diversion rate can be increased by an amount equal to one-third of the flow in that river as measured at Vernalis ~~may be pumped in addition.~~

Page 6-9, last paragraph, the first sentence is revised to read:

> Prior to 1990, the long-term water supply contracts contained no provision for contractors to carry over allocated Table A water in SWP reservoirs from one year to the next (although Articles 12(d) and Article 14(b) “make-up” water offered credits ~~of water~~ for future water deliveries).

Page 6-12, second full paragraph, the second-to-last sentence is revised to read:

> Under supply-limited conditions, ~~Banks Pumping Plant~~ the intake to Clifton Court Forebay is operated at its maximum permitted capacity ~~in order to maximize the volume of water captured,~~ subject to the limitations of water quality, Delta standards, and a host of other variables, until all needs are satisfied and all SWP storage facilities south of the Delta are full or at their storage targets.

Page 6-12, fourth paragraph, the last sentence is revised to read:

> Curtailments of pumping occurred at times in May and June of 1996, 1997, 1999, and 2000, although no findings of jeopardy were made for any of those events.

Page 6-13, third paragraph, beginning at the third sentence, the following text has been added:

> The Department and Reclamation are called the Project Agencies; the others (the fishery agencies) are called the Management Agencies. The Management Agencies evaluate the current hydrology, fish monitoring data, and other scientific evidence and

recommend changes in Delta export pumping (pumping curtailments) to protect the fish, considering the available EWA assets that can be provided to offset the curtailments. The Project Agencies implement the export curtailments and transfer the replacement water (EWA assets) to the projects later in the year when fish are not at risk near the Delta export pumps. The EWA began operation in late 2000.

Page 6-13, paragraph four, the second sentence is revised to read:

As part of the EWA adaptive management process described above, the SWP is permitted to pump an additional 500 cfs from July 1 to September 30, making the summer limit for diversions into Clifton Court Forebay effectively 7,180 cfs rather than 6,680 cfs.

Page 6-15, fourth paragraph, beginning with the first sentence, the references to 2003 have been revised to 2004:

To characterize the effects of the proposed project between 1996 and ~~2003~~ 2004, three historical analyses were performed. One historical analysis (Study No. 1) examined the effects of the Table A transfers and retirements and the altered water allocation procedures on Table A allocations. A second analysis examined the changes in historical SWP operations between 1996 and ~~2003~~ 2004 attributable to the combined effects of the water supply management practices and the Table A retirements (Study No. 2).

Page 6-16, Table 6-3 is revised as follows:

**TABLE 6-3**

**POTENTIAL EFFECTS OF MONTEREY AMENDMENT ON SWP OPERATIONS**

| Amended, Deleted, or Added Article | Summary | Potential Change in SWP or Contractor Operations | Notes |
|---|---|---|---|
| 1(d) | Definition change for "Contractor" | No | |
| 1(k) | Definition change for "Minimum Project Yield" ~~Reduces SWP's minimum project yield from 4.23 to 4.185 MAF/yr~~ | No | a |
| 1(hh) | Definition change for "Water System Facilities" | No | |
| 1(jj) | Definition added for "Interruptible water" | No | |
| 1(kk) | Definition added for "Non-SWP water" | No | |
| 1(ll) | Definition added for "Monterey Amendment" | No | |
| 4 | Revises options for continued service | No | |
| 7(a) | Revises procedures for requesting changes in Table A amounts | No | |
| 12 | Title change for Article 12 | No | |
| 12(a)(2) | Makes Department review and modification of contractor delivery schedules consistent with Article 18 | No | |
| 12(d) | Deleted | No | |
| 12(f) | Added to clarify priorities for delivery of water | Yes | |
| 14(a) | Expands conditions under which the Department can curtail deliveries to include outages or reductions in capability of facilities outside of State's control | No | |
| 14(b) | Clarifies conditions for subsequent delivery of water not delivered due to curtailments covered in 14(a) | No | |
| 16(a) | Reduces sum of maximum Table A amounts to 4.185 MAF to be consistent with 1(k) | Yes | |
| 18(a) | Revises allocation procedures in shortages | Yes | |

**TABLE 6-3**

**POTENTIAL EFFECTS OF MONTEREY AMENDMENT ON SWP OPERATIONS**

| Amended, Deleted, or Added Article | Summary | Potential Change in SWP or Contractor Operations | Notes |
|---|---|---|---|
| 18(b) | Deletes provision for reducing Table A amounts when there is a threatened permanent water shortage as defined in provision | Yes | b |
| 18(d)(e) | Eliminates references to Article 18(b) | No | |
| 21(a) through (j) | Eliminates provisions for scheduled "surplus" water, renames "unscheduled water" as "interruptible water and sets terms for delivery of "interruptible water." Eliminates some restrictions on use of "surplus" water. | Yes | |
| 22(j) | Clarifies financial obligations with regards to "the conservation portion of the water system revenue bond financing costs" as they relate to new Article 51 | No | |
| 24(b) | Refines definition of financial obligation with regards to aqueduct capital costs | No | |
| 24(g) | Clarifies financial obligations with regards to the "capital cost component of the Transportation Charge" as they relate to new Article 51 | No | |
| 25(d)(3) | Clarifies method used to allocate power costs | No | |
| 50(j) | Added to clarify the obligations related to bond financing under Article 50 and unaffected by new Article 51 | No | |
| 51 | Added to specify numerous financial adjustments | No | |
| 52 | Added to transfer state-owned land in the Kern Fan Element to KCWA | Yes | c |
| 53 | Added to allow for accelerated administrative approval of voluntary permanent transfer up to 130,000 AF from Agricultural Contractors. Also provides for retirement of 45,000 AF of Table A between KCWA and DRWD | Yes | |
| 54 | Added to allow flexible storage at Castaic Lake and Lake Perris | Yes | |
| 55 | Added to clarify process and charges associated with the transportation of non-SWP water for contractors | No | |
| 56 | Added to encourage cooperation among the contractors to develop groundwater storage programs and to govern storage of Project Water outside contractor service areas. Also established a process for contractors to sell their SWP water via a turnback pool | Yes | |

Notes:
a. Affects SWP as it relates to total Table A amounts in article 16(a).
b. Will analyze potential effects of invoking Article 18(b) in CNPA3~~1~~ and CNPA4~~2~~.
c. Virtually eliminates the possibility that a state-owned groundwater bank on the K~~ern Fan Element~~ property would be developed as part of the SWP.

Page 6-17, last paragraph, the first sentence is revised to read:

> Between 1996 and 2003, 45,000 AF of Table A amount was permanently retired and 114,000 AF of Table A amount was transferred from agricultural to M&I contractors pursuant to the consents set forth in the Monterey Amendment.

Page 6-18, third full paragraph, the second sentence is revised to read:

> MWDSC transferred 88,100 AF of Table A amount to Coachella Valley W~~A~~D and 11,900 AF of Table A amount to Desert WA.

Page 6-18, fourth full paragraph, last sentence:

> The transfers of Table A amount from Tulare Lake Basin WSD to other contractors shown in Table 6-4 are assumed to occur between 1995 and 2003 and the Quantification Settlement Agreement transfers from MWDSC to Coachella Valley W~~A~~D and Desert WA are assumed to occur between 2003 and 2020.

Page 6-19, Table 6-4, the agency name is revised as follows:

Tulare Lake Basin Water Storage ~~Service~~ District

Pages 6-21 through 6-28, Tables 6-7 through 6-13:

In the course of responding to comments, including developing the table of MWDSC deliveries for Response to Comment 1-1, the Department noted that the deliveries shown in DEIR Table 6-10 exceeded actual deliveries in the 1996-1998 period. A further review revealed a number of anomalies in the historical analysis of how allocations would have differed between 1996 and 2005 under the different alternatives. These anomalies originate in DEIR Appendix I and affect certain values in Chapter 6.

These anomalies do not affect the impact conclusions in this DEIR, nor do they alter the trends evident between the alternatives. However, several tables in Chapter 6 and a greater number of tables in Appendix I present erroneous data, that if used for purposes other than the basis for the analyses in the DEIR, could lead to erroneous conclusions.

The Department reviewed and revised its computations to correct several data inconsistencies. In particular, the input data for the 1996-1998 years was corrected to allocate the water that the Department determined was available for allocation in those years as determined by the Notices to Contractors published and distributed in those years. These values replaced the full Table A contract amounts that had mistakenly been used as the basis for computations in those years.

The incorrect 1996-1998 input data (contract Table A amounts rather than the allocated supply) affected all alternatives in the analysis in a similar manner, and the same trends and relative differences appear when corrected data are used. However, leaving the tables uncorrected would give the impression that the Department had delivered full contract Table A in 1996-1998, when in fact it did not do so.

In other years, the computations did not allocate exactly the same amount of water to each alternative in certain years, whereas the premise of the analysis was supposed to be the allocation of the amount that the Department had actually allocated in each year from 1996-2005. As a result, the increases in allocations to agricultural contractors in some years were not offset exactly by the decreases in deliveries to M&I contractors in those same years. While those inconsistencies were less evident, and did not affect DEIR conclusions, the data shown were not correct. In addition, a few other errors in historical data were corrected.

Thus the Department has elected to correct the text and tables in DEIR Chapter 6 in this section of the FEIR and publish a complete corrected version of Appendix I. In Chapter 6, the tables replaced are 6-7 through 6-13; Table 6-7 was also expanded to provide added detail on the allocations. Because most of the tables in Appendix I are updated and the text has some revisions throughout, the entire appendix has been revised and is included as part of this FEIR as Appendix B.

**TABLE 6-7**

**DELIVERIES OF TABLE A AND ARTICLE 21 WATER (1996-2005)**

| Year | Contractual Table A Amounts AF | Initial Table A Requests | Final Table A Approvals | Table A Deliveries[1] | Article 21 deliveries | Final Allocation Percentages | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Announced Table A Allocation Percentage | Averaged Percent of Table A Requests Allocated[2] | Percent of Table A Requests Delivered[3] | Percent of Contract Table A Allocated | Percent of Contract Table A Delivered |
| 1996 | 4,128,641 | 2,701,707 | 2,701,707 | 2,514,825 | 28,647 | 100% | 100% | 93% | 65% | 61% |
| 1997 | 4,084,536 | 2,977,246 | 2,977,246 | 2,325,775 | 21,432 | 100% | 100% | 78% | 73% | 57% |
| 1998 | 4,086,021 | 3,191,045 | 3,191,045 | 1,725,519 | 20,288 | 100% | 100% | 54% | 78% | 42% |
| 1999 | 4,120,646 | 3,214,259 | 3,214,259 | 2,738,891 | 158,070 | 100% | 100% | 85% | 78% | 66% |
| 2000 | 4,121,631 | 3,617,267 | 3,406,083 | 3,200,677 | 308,785 | 90% | 94% | 88% | 83% | 78% |
| 2001 | 4,124,136 | 4,124,136 | 1,607,570 | 1,690,926 | 43,435 | 39% | 39% | 41% | 39% | 41% |
| 2002 | 4,125,031 | 3,913,698 | 2,887,014 | 2,573,030 | 37,165 | 70% | 74% | 66% | 70% | 62% |
| 2003 | 4,126,926 | 4,126,926 | 3,714,233 | 2,901,041 | 59,828 | 90% | 90% | 70% | 90% | 70% |
| 2004 | 4,128,811 | 4,128,811 | 2,683,727 | 2,599,536 | 218,496 | 65% | 65% | 63% | 65% | 63% |
| 2005 | 4,125,686 | 4,125,686 | 3,713,117 | 2,828,406 | 731,083 | 90% | 90% | 69% | 90% | 69% |

Notes:
1. Includes all categories of Table A deliveries made in that particular year.
2. In 2000 & 2002, MWDSC's request was less than their prorated Table A amount. Reallocation of their unrequested water to other contractors increased the percentage of Table A requests allocated above the announced Table A allocation percentage.
3. Contractors often schedule delivery of less water during the year than their initial request due to local hydrology and availability of other supplies, or as in 2001, may take delivery of carryover water from a prior year, increasing the percentage of Table A requests delivered.

**TABLE 6-8**

**EFFECTS OF PROPOSED PROJECT ON TABLE A ALLOCATIONS TO M&I CONTRACTORS**

| Year | Water Year Type[a] | Baseline Scenario (AF) | Proposed Project (AF) | Difference (AF) | Percent Change |
|---|---|---|---|---|---|
| 1996 | W | 1,497,042 | 1,521,977 | 24,935 | 2% |
| 1997 | W | 1,775,017 | 1,801,846 | 26,829 | 2% |
| 1998 | W | 1,996,842 | 2,040,645 | 43,803 | 2% |
| 1999 | W | 2,063,859 | 2,063,859 | 0 | 0% |
| 2000 | AN | 2,440,720 | 2,348,545 | -92,175 | -4% |
| 2001 | D | 1,568,529 | 1,150,233 | -418,296 | -27% |
| 2002 | D | 2,172,159 | 2,064,870 | -107,289 | -5% |
| 2003 | AN | 2,626,324 | 2,656,373 | 30,050 | 1% |
| 2004 | BN | 1,899,020 | 1,919,717 | 20,698 | 1% |
| 2005 | AN | 2,626,608 | 2,655,257 | 28,649 | 1% |
| **Total** | | 20,666,118 | 20,223,322 | -442,796 | -2% |

Notes:
AN= Above Normal D = Dry BN = Below Normal W = Wet

a. The Department classifies water year types as wet (W), above normal (AN), below normal (BN), dry (D), and critically dry (CD), based on flow in the Sacramento and San Joaquin rivers.
Source: California Department of Water Resources.

**TABLE 6-9**

**EFFECTS OF PROPOSED PROJECT ON TABLE A ALLOCATIONS TO AGRICULTURAL CONTRACTORS**

| Year | Water Year Type[a] | Baseline Scenario (AF) | Proposed Project (AF) | Difference (AF) | Percent Change |
|---|---|---|---|---|---|
| 1996 | W | 1,204,665 | 1,179,730 | -24,935 | -2% |
| 1997 | W | 1,202,229 | 1,175,400 | -26,829 | -2% |
| 1998 | W | 1,194,204 | 1,150,400 | -43,804 | -4% |
| 1999 | W | 1,150,400 | 1,150,400 | 0 | 0% |
| 2000 | AN | 965,363 | 1,057,538 | 92,175 | 10% |
| 2001 | D | 39,041 | 457,337 | 418,296 | 1071% |
| 2002 | D | 714,856 | 822,145 | 107,289 | 15% |
| 2003 | AN | 1,087,909 | 1,057,860 | -30,049 | -3% |
| 2004 | BN | 784,707 | 764,010 | -20,697 | -3% |
| 2005 | AN | 1,086,509 | 1,057,860 | -28,649 | -3% |
| Total | | 9,429,883 | 9,872,680 | 442,797 | 5% |

Note:
AN= Above Normal D = Dry BN = Below Normal W = Wet

a. The Department classifies water year types as wet (W), above normal (AN), below normal (BN), dry (D), and critically dry (CD), based on flow in the Sacramento and San Joaquin rivers.
Source: California Department of Water Resources.

**TABLE 6-10**

**EFFECTS OF PROPOSED PROJECT ON TABLE A ALLOCATIONS FOR SELECTED M&I CONTRACTORS THAT DID NOT PARTICIPATE IN A MONTEREY AMENDMENT-RELATED TABLE A TRANSFER**

| Contractor | Year | Baseline Table A Allocation (AF) | Proposed Project Table A Allocation (AF) | Change in Table A Allocation | |
|---|---|---|---|---|---|
| | | | | AF | Percent |
| Santa Clara Valley WD | 1996 | 98,362 | 100,000 | 1,638 | 2% |
| | 1997 | 98,511 | 100,000 | 1,489 | 2% |
| | 1998 | 97,853 | 100,000 | 2,147 | 2% |
| | 1999 | 100,000 | 100,000 | 0 | 0% |
| | 2000 | 100,000 | 90,000 | -10,000 | -10% |
| | 2001 | 53,193 | 39,000 | -14,193 | -27% |
| | 2002 | 81,450 | 70,000 | -11,450 | -14% |
| | 2003 | 88,982 | 90,000 | 1,018 | 1% |
| | 2004 | 64,299 | 65,000 | 701 | 1% |
| | 2005 | 89,029 | 90,000 | 971 | 1% |
| | Total | 871,680 | 844,000 | -27,680 | -3% |
| Santa Barbara FC&WCD | 1996 | 42,282 | 42,986 | 704 | 2% |
| | 1997 | 38,406 | 38,986 | 580 | 2% |
| | 1998 | 38,149 | 38,986 | 837 | 2% |
| | 1999 | 45,486 | 45,486 | 0 | 0% |
| | 2000 | 45,486 | 40,937 | -4,549 | -10% |
| | 2001 | 24,195 | 17,740 | -6,456 | -27% |
| | 2002 | 37,048 | 31,840 | -5,208 | -14% |
| | 2003 | 40,474 | 40,937 | 463 | 1% |
| | 2004 | 29,247 | 29,566 | 319 | 1% |
| | 2005 | 40,496 | 40,937 | 442 | 1% |
| | Total | 381,269 | 368,402 | -12,868 | -3% |
| MWDSC | 1996 | 726,696 | 738,800 | 12,104 | 2% |
| | 1997 | 1,028,554 | 1,044,100 | 15,546 | 2% |
| | 1998 | 1,177,743 | 1,203,578 | 25,835 | 2% |
| | 1999 | 1,180,000 | 1,180,000 | 0 | 0% |
| | 2000 | 1,507,136 | 1,507,136 | 0 | 0% |
| | 2001 | 1,069,982 | 784,485 | -285,497 | -27% |
| | 2002 | 1,408,050 | 1,408,050 | 0 | 0% |
| | 2003 | 1,789,871 | 1,810,350 | 20,479 | 1% |
| | 2004 | 1,293,378 | 1,307,475 | 14,097 | 1% |
| | 2005 | 1,701,788 | 1,720,350 | 18,562 | 1% |
| | Total | 12,883,197 | 12,704,324 | -178,873 | -1% |

Source: California Department of Water Resources.

**TABLE 6-11**

**EFFECTS OF PROPOSED PROJECT ON TABLE A ALLOCATIONS FOR SELECTED M&I CONTRACTORS THAT PARTICIPATED IN A MONTEREY AMENDMENT-RELATED TABLE A TRANSFER**

| Contractor | Year | Baseline Table A Allocation (AF) | Proposed Project Table A Allocation (AF) | Change in Table A Allocation | |
|---|---|---|---|---|---|
| | | | | AF | Percent |
| Solano County WA | 1996 | 37,181 | 37,800 | 619 | 2% |
| | 1997 | 31,829 | 32,310 | 481 | 2% |
| | 1998 | 37,879 | 38,710 | 831 | 2% |
| | 1999 | 39,170 | 39,170 | 0 | 0% |
| | 2000 | 39,620 | 35,658 | -3,962 | -10% |
| | 2001 | 21,320 | 17,876 | -3,444 | -16% |
| | 2002 | 33,020 | 32,407 | -613 | -2% |
| | 2003 | 36,483 | 42,080 | 5,598 | 15% |
| | 2004 | 26,652 | 30,684 | 4,032 | 15% |
| | 2005 | 36,947 | 42,530 | 5,583 | 15% |
| | Total | 340,100 | 349,226 | 9,126 | 3% |
| Alameda FC&WCD, Zone 7 | 1996 | 43,279 | 44,000 | 721 | 2% |
| | 1997 | 45,315 | 46,000 | 685 | 2% |
| | 1998 | 42,191 | 43,117 | 926 | 2% |
| | 1999 | 46,000 | 46,000 | 0 | 0% |
| | 2000 | 46,000 | 61,200 | 15,200 | 33% |
| | 2001 | 24,469 | 30,420 | 5,951 | 24% |
| | 2002 | 37,701 | 54,600 | 16,899 | 45% |
| | 2003 | 40,932 | 70,200 | 29,268 | 72% |
| | 2004 | 29,835 | 52,402 | 22,568 | 76% |
| | 2005 | 41,309 | 72,557 | 31,248 | 76% |
| | Total | 397,031 | 520,496 | 123,465 | 31% |
| Mojave | 1996 | 19,672 | 20,000 | 328 | 2% |
| | 1997 | 14,383 | 14,600 | 217 | 2% |
| | 1998 | 14,678 | 15,000 | 322 | 2% |
| | 1999 | 20,000 | 20,000 | 0 | 0% |
| | 2000 | 50,800 | 68,220 | 17,420 | 34% |
| | 2001 | 27,022 | 29,562 | 2,540 | 9% |
| | 2002 | 41,377 | 53,060 | 11,683 | 28% |
| | 2003 | 45,203 | 68,220 | 23,017 | 51% |
| | 2004 | 32,664 | 49,270 | 16,606 | 51% |
| | 2005 | 45,227 | 68,220 | 22,993 | 51% |
| | Total | 311,025 | 406,152 | 95,127 | 31% |

Source: California Department of Water Resources.

**TABLE 6-12**

**EFFECTS OF PROPOSED PROJECT ON TABLE A ALLOCATIONS FOR SELECTED AGRICULTURAL CONTRACTORS THAT DID NOT PARTICIPATE IN A MONTEREY AMENDMENT-RELATED TABLE A TRANSFER**

| Contractor | Year | Baseline Table A Allocation (AF) | Proposed Project Table A Allocation (AF) | Change in Table A Allocation | |
|---|---|---|---|---|---|
| | | | | AF | Percent |
| County of Kings | 1996 | 3,934 | 4,000 | 66 | 2% |
| | 1997 | 3,940 | 4,000 | 60 | 2% |
| | 1998 | 3,914 | 4,000 | 86 | 2% |
| | 1999 | 3,771 | 4,000 | 229 | 6% |
| | 2000 | 3,164 | 3,600 | 436 | 14% |
| | 2001 | 128 | 1,560 | 1,432 | 1121% |
| | 2002 | 2,338 | 2,800 | 462 | 20% |
| | 2003 | 3,559 | 3,600 | 41 | 1% |
| | 2004 | 5,787 | 5,850 | 63 | 1% |
| | 2005 | 8,013 | 8,100 | 87 | 1% |
| | Total | 38,548 | 41,510 | 2,962 | 8% |
| Oak Flat WD | 1996 | 5,607 | 5,700 | 93 | 2% |
| | 1997 | 5,615 | 5,700 | 85 | 2% |
| | 1998 | 5,578 | 5,700 | 122 | 2% |
| | 1999 | 5,373 | 5,700 | 327 | 6% |
| | 2000 | 4,509 | 5,130 | 621 | 14% |
| | 2001 | 182 | 2,223 | 2,041 | 1121% |
| | 2002 | 3,332 | 3,990 | 658 | 20% |
| | 2003 | 5,072 | 5,130 | 58 | 1% |
| | 2004 | 3,665 | 3,705 | 40 | 1% |
| | 2005 | 5,075 | 5,130 | 55 | 1% |
| | Total | 44,007 | 48,108 | 4,101 | 9% |
| Tulare Lake Basin WSD | 1996 | 116,559 | 118,500 | 1,941 | 2% |
| | 1997 | 116,736 | 118,500 | 1,764 | 2% |
| | 1998 | 115,956 | 118,500 | 2,544 | 2% |
| | 1999 | 111,703 | 118,500 | 6,797 | 6% |
| | 2000 | 93,736 | 106,650 | 12,914 | 14% |
| | 2001 | 3,784 | 46,215 | 42,431 | 1121% |
| | 2002 | 65,188 | 78,069 | 12,881 | 20% |
| | 2003 | 99,239 | 100,374 | 1,135 | 1% |
| | 2004 | 61,873 | 62,548 | 674 | 1% |
| | 2005 | 85,670 | 86,604 | 934 | 1% |
| | Total | 870,443 | 954,460 | 84,017 | 10% |

Source: California Department of Water Resources.

**TABLE 6-13**

**EFFECTS OF PROPOSED PROJECT ON TABLE A ALLOCATIONS FOR AGRICULTURAL CONTRACTORS THAT PARTICIPATED IN A MONTEREY AMENDMENT-RELATED TABLE A TRANSFER**

| Contractor | Year | Baseline Table A Allocation (AF) | Proposed Project Table A Allocation (AF) | Change in Table A Allocation | |
|---|---|---|---|---|---|
| | | | | AF | Percent |
| KCWA | 1996 | 1,138,762 | 1,117,060 | -21,702 | -2% |
| | 1997 | 1,136,226 | 1,112,730 | -23,496 | -2% |
| | 1998 | 1,128,642 | 1,087,730 | -40,912 | -4% |
| | 1999 | 1,094,964 | 1,087,730 | -7,234 | -1% |
| | 2000 | 940,493 | 918,657 | -21,836 | -2% |
| | 2001 | 104,202 | 390,370 | 286,168 | 275% |
| | 2002 | 706,418 | 700,664 | -5,754 | -1% |
| | 2003 | 1,028,292 | 900,854 | -127,437 | -12% |
| | 2004 | 741,627 | 649,175 | -92,452 | -12% |
| | 2005 | 1,026,860 | 898,857 | -128,003 | -12% |
| | Total | 9,046,486 | 8,863,827 | -182,659 | -2% |

Source: California Department of Water Resources.

Page 6-22, first paragraph, the last sentence is revised to read:

> The rising trend is attributable to more favorable hydrology between 1996 and 2005 than between 1986 and 1995, increased water demand in the M&I contractors' service areas~~.~~, reduced Colorado River supplies to southern California, and facilities improvements that gave some contractors better access to SWP water.

Page 6-22, second paragraph, the first sentence is revised to read:

> Several provisions of the Monterey Amendment affected allocations to individual contractors after 1995 but the provisions with the greatest effect were those that altered the water allocation method (Article 18(a)) and called for transfers of Table A amount from ~~M&I to~~ agricultural contractors to M&I contractors (Article 53).

Page 6-23, the first and second paragraphs are revised to read:

> As shown in Table 6-8, in most years, the M&I contractors' total Table A allocation was similar with the proposed project and under the baseline scenario. However, in 2000 and the dry years of ~~(~~2001 and 2002~~)~~, the M&I contractors' total Table A allocation with the proposed project was considerably less than it would have been under the baseline scenario where agriculture-first cutbacks would have kept M&I deliveries higher. For the ten-year period, the M&I contractors' total Table A allocation was about ~~500~~443,000 AF (or about two percent) less than it would have been under the baseline scenario.
>
> As shown in Table 6-9, in most years, the agricultural contractors' total Table A allocations with the proposed project and under the baseline scenario were within 10 percent of each other. However, in 2000 and the ~~two~~ dry years ~~(~~of 2001 and 2002~~)~~, the agricultural contractors' total Table A allocation with the proposed project was considerably more than it would have been under the baseline scenario where agriculture-first cutbacks would have reduced agricultural deliveries. For the 10-year

period, the agricultural contractors' Table A allocation was about 4~~50~~43,000 AF (or five percent) more than it would have been under the baseline scenario.

Page 6-24, first paragraph, the fourth sentence is revised to read:

However, in 2000 and the dry years ~~(~~of 2001 and 2002~~)~~ the Table A allocations for M&I contractors in this group with the proposed project were less than they would have been under the baseline scenario.

Page 6-24, fourth paragraph, the last two sentences are revised to read:

In 2000 and the dry years of 2001 and 2002, ~~two dry years,~~ agricultural contractors in this group received a substantial increase in their allocations because of the altered allocation procedures that eliminated agriculture-first allocation cuts. In 2001, for example, agricultural contractors in this group received Table A allocations about ~~twelve~~ eleven times greater than they would have under the baseline scenario.

Page 6-27, first paragraph, the second sentence is revised to read:

KCWA experienced a reduction in its Table A allocation compared to the baseline scenario in every year between 1996 and 2005 except 200~~1 and~~0-2002.

Page 6-27, first paragraph, the fourth sentence is revised to read:

In 2000 and the dry years 2001 and 2002, the reduction in Table A amount attributable to the Table A transfers and retirements was more than offset by the effects of the altered water allocation procedures.

Page 6-28, first paragraph, the fourth sentence is revised to read:

However, because most of the provisions of the Monterey Amendment were implemented between 1996 and 2003, trends in allocations determined from historical analysis provide insight into future allocations barring catastrophic events.

Page 6-52, third paragraph, the third sentence is revised to read:

Collectively, average deliveries to agricultural contractors in ~~wet~~ critically dry years would increase by 21 percent and deliveries to M&I contractors would decrease by 5 percent relative to the baseline scenario.

Page 6-57, last paragraph, the second sentence is revised to read:

The turnback pool was used to transfer 1,285,318 AF of Table A water between 1996 and 2004, including 289,222 AF purchased by the Department and ~~9~~996,096 AF purchased by contractors.

Page 6-60, fourth paragraph, the last sentence is revised to read:

They placed water in storage outside their service areas in order to diversify their water sources rather than to increase their total amount of water in storage within their service areas.

Page 6-62, first paragraph, the third full sentence is revised to read:

> In this case, if Table A allocations are less than 100 percent ~~and more~~ or less Article 21 water was available than the demand for it ~~in excess of demand~~, the increase in Table A delivery to that contractor would be offset by reduced allocations to other contractors with no effect on total deliveries of SWP water.

Page 6-65, second paragraph, the second sentence is revised to read:

> The Settlement Agreement alters how the Department administers the long-term water supply contracts and provides information to the public ~~on SWP operations~~ regarding current and projected SWP delivery reliability.

## Chapter 7 Environmental Analysis

Page 7-2, the second bullet is revised to read:

- **Less Than Significant Impact:** A project impact is considered less-than-significant when it does not reach the standard of significance and would therefore cause no substantial adverse change in the environment (no mitigation required).

Page 7.1-7, last paragraph, the last sentence is revised to read, and two paragraphs are added:

> The Sacramento River contributes an average of 77 percent of the inflow to the Delta, the San Joaquin River contributes about 15 percent of the inflow, and Mokelumne, ~~Consumnes~~Cosumnes, and Calaveras rivers contribute the remainder.[9]
>
> Unimpaired Delta inflow; that is, the Delta inflow that would occur if there were no dams and diversions upstream of the Delta, averaged about 29.5 million AFY in the period 1921 through 2003. Unimpaired Delta inflow varies widely from year to year and within the year. The minimum unimpaired Delta inflow in that period occurred in 1976 and was about 7 million AF. The maximum unimpaired Delta inflow occurred in 1982 and was about 73 million AF. On a seasonal basis, average monthly unimpaired flow into the Delta varies by more than a factor of 10 between the highest month in the winter or spring and the lowest month in the fall (California Valley Unimpaired Flow Data, Draft Fourth Edition, DWR, 2007).
>
> Historical or measured Delta inflow is less than unimpaired Delta inflow because water is diverted upstream of the Delta for agricultural and municipal use, reservoirs reregulate streamflow over multi-year periods, water evaporates from reservoirs, and stream depletions increase to recharge the groundwater basin to the extent it is affected by pumping in the basin. In 2000, an average runoff year, historical Delta inflow was about 25 million AF, of which 85 percent originated from the Sacramento River watershed, 11 percent from the San Joaquin River watershed and 4 percent from other rivers and streams (California Water Plan Update 2005, Bulletin 160-05, Volume 3, DWR, 2005).

Page 7.1-9, the first paragraph is revised to read:

> Most of the Delta islands are used to grow crops. Delta farmers divert water directly from the Delta channels to irrigate their land. A portion of the diverted water is returned to the Delta channels as agricultural drainage or return water. The average annual net

diversion of water for irrigation within the Delta is estimated to be 960,000 AF[10] (note: from a fisheries standpoint, gross diversions are also important).

Page 7.1-9, second paragraph, the last two sentences are revised to read:

In addition, CCWD, a CVP contractor, diverts ~~its~~ water from Old River and Rock Slough in the south Delta and Mallard Slough in the west Delta. On average, ~~Contra Costa WD diverts 190,000 AFY from the Delta~~CCWD's annual demand is 190,000 AF and diversions are less.

Page 7.1-9, the sixth paragraph, the first two sentences on page 7.1-9 are revised to read:

In general, the SWP and CVP pump as much water as they can from the Delta. Their ability to pump water is limited by three factors, the capacity of their facilities (pumping plants, aqueducts and storage reservoirs), the need to maintain compliance with environmental standards—including regulatory restrictions such as the U.S. Army Corps of Engineers permit (described on page 6-2, paragraph 2)—and the availability of water.

Page 7.1-15, the end of the fourth paragraph is revised to read:

Algae can be drawn into the intake for the San Felipe Division of the CVP, which serves Santa Clara Valley WD (which is both a SWP and CVP contractor) and several smaller CVP contractors.[24] Algae in raw water makes it difficult for municipal water supply agencies to treat water and avoid taste and odor problems. Irrigation districts may be adversely affected because algae can block the emitters in drip irrigation systems. The quality problems that occur when storage in San Luis Reservoir is less than 300,000 AF of water do not affect the SWP or its contractors, other than Santa Clara Valley WD's CVP deliveries.[25]

Page 7.1-17, the beginning of the fourth paragraph is revised to read:

North of the Delta, the CVP operates reservoirs on the Trinity, Sacramento and American rivers. Water from the Trinity River, which flows to the Klamath River and to the Pacific Ocean near the California/Oregon border, is diverted into ~~Shasta~~ Whiskeytown Lake. Shasta Lake, the largest CVP reservoir on the Sacramento River ~~with~~ has a capacity of 4.5 million AF.

Page 7.1-17, the following text is added to the end of the last paragraph:

Any impacts of these improvements are not related to the Monterey Amendment project.

Page 7.1-18, the end of the third paragraph is revised to read::

The purpose of this fish action was to reduce take of listed species at the pumps. In addition to reducing take at the pumps, t~~T~~he effect on Delta flows was to increase Delta outflow at times in May and June when threatened and endangered species were present near the pumps.

Page 7.1-23, last paragraph, the second sentence is revised to read:

The numerical fish and wildlife water quality objectives are expressed in terms of dissolved oxygen content, electrical conductivity, Delta outflow as measured by the

location of X2, the 2000 mg/l isohaline, and other flow~~s~~ parameters in the Delta and the Sacramento and San Joaquin rivers.

Page 7.1-42, fourth paragraph, the fourth and fifth sentences are revised to read:

An important parameter with respect to Delta outflow ~~water quality~~ is the average position of X2, the 2,000 mg/L isohaline. As shown in Table 7.1-14, the Table A transfers and retirements and the altered water allocation procedures that are a part of the proposed project would have no effect on the average Delta outflow as measured by the average location of X2 in most hydrologic year types compared to the baseline scenario.

Page 7.1-44, the last paragraph is revised to read:

The CALSIM II model was used to estimate the value of various Delta parameters under 2020 conditions. The estimates are shown in Table 7.1-~~15~~17. The estimates account for the Table A transfers and retirements and the altered water allocation procedures but not the new water supply management practices. An important parameter with respect to Delta outflow ~~water quality~~ is the average position of X2, the 2,000 mg/L isohaline. As shown in Table 7.1-~~15~~17, the Table A transfers and retirements and the altered water allocation procedures that are a part of the proposed project would have no effect on the average Delta outflow as measured by the average location of X2 in most hydrologic year types compared to the baseline scenario. In dry years, it would shift the position of X2 by 0.1 kilometers toward the Golden Gate.

Page 7.1-51, last paragraph, the first sentence is revised to read:

Using historical data from the period 1996 through 2004, the Department determined that in the future the water supply management practices would increase average annual deliveries of SWP water by about 50,000 AFY ~~per year~~, which would delay~~ed~~ the filling of San Luis Reservoir by several months on occasion (Study No. 3).

Page 7.1-57, second paragraph, the last two sentences are revised to read:

Flow changes of this magnitude are too small to have any effect on water quality at the diversion points of CVP contractor~~s~~ CCWD's three diversion points in and near the Delta. Consequently, the proposed project would not affect water availability or quality at the CVP's or its contractors' diversion points.

Page 7.1-61, the following text is added the end of first full paragraph:

Any projects approved would also be subject to project-specific mitigation measures approved and adopted as required by CEQA.

Page 7.1-66, endnote 50 is revised to read:

Between 1996 and ~~2003~~ 2004, a relatively wet period, a total of about 371,400 AF of SWP water was delivered for recharge in the Kern Water Bank (about 353,000 AF by the Kern Water Bank Authority member entities, and 18,400 AF by KCWA) ~~several KCWA member agencies placed about 750,000 AF of SWP water in storage in the Kern Water Bank.~~ These agencies had the ability to place SWP water in storage in Kern County when it was available prior to the Monterey Amendment. A survey conducted by KCWA

indicated that in the absence of the Kern Water Bank the agencies would have stored the SWP water elsewhere in Kern County. Thus, the ~~placement of 750,000~~ delivery of 371,000 AF of SWP water in groundwater storage in the Kern Water Bank would not have had any effect on delta outflow.

Page 7.2-10, last paragraph, the third sentence is revised to read:

Several new groundwater banks are planned in Kern County so total storage ~~capacity~~ capability is expected to increase in the future.

Page 7.3-7, fifth paragraph, the following text is added to the end of the paragraph:

Following 2005 the population estimates continued to rise, reaching 17,153 in 2006. The 2007 winter-run estimates are down to 2,541, and preliminary 2008 estimates are 2,850.

Page 7.3-7 and continuing on page 7.3-12, last paragraph, beginning at the third sentence, the following text is added:

Population estimates for spring-run Chinook in Mill Creek range from a low of 61 in 1993, to a high of 3,500 in 1975. Compared to the 1990s, spring-run numbers in Mill Creek from 2000 to 2005 have been greater. Current population estimates for spring-run salmon at Mill Creek show a slight decrease from 1,002 in 2006 to 920 in 2007. Feather River and Butte Creek have shown a similar trend of increasing spring-run numbers since 1995 as compared to years prior to 1995. The Feather River supports the spring-run Chinook population with spawning both in the river and at the Feather River hatchery. Since 2005, the Feather River estimates have shown a slight increase from 1,835 in 2005 to 1,952 and 2,752 in 2006 and 2007 respectively. Butte Creek estimates increased in 2005 to 10, 625 (from 7,390 in 2004), but has since decreased to 4,579 and 4,949 in 2006 and 2007 respectively. Cottonwood Creek, Big Chico Creek, Battle Creek, and Clear Creek also have runs of spring-run Chinook, but are fewer in numbers. Spring-run numbers in the Sacramento River at the RBDD have diminished in the 1990s and the early part of the 2000's when compared to the numbers in the 1970s and 1980s. Estimates for 2007 spring-run numbers in the Sacramento River at the RBDD, while still preliminary, indicate that the population continues to remain at low levels. The San Joaquin River population of spring-run Chinook was extirpated by the construction of Friant Dam in 1948 which blocked access to upstream spawning habitat. For spring-run Chinook salmon numbers relevant to this EIR, see Tables 7.3-2 and 7.3-3.

Page 7.3-9, Table 7.3-2 is revised as follows:

**TABLE 7.3-2**

**CHINOOK SALMON SPAWNERS POPULATIO-NS IN SELECTED SACRAMENTO RIVER TRIBUTARIES**

| | Yuba River | Battle Creek | | Big Chico | Butte Creek | | Clear Creek | | Mill creek | | Feather River*2 | | American River*2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Fall Run | Fall Run | Late Fall Run | Spring Run | Fall Run | Spring Run | Fall Run | Spring Run | Fall Run | Spring Run | Fall Run | Spring Run | Fall Run |
| 1985 | 13,042 | 39,808 | 181 | 0 | 100 | 254 | 700 | N/D | 3,840 | 121 | 56,002 | 1,632 | 65,213 |
| 1986 | 19,328 | 31,252 | 197 | N/D | N/D | 1,371 | N/D | N/D | 574 | 291 | 55,471 | 1,433 | 55,067 |
| 1987 | 18,518 | 24,249 | 349 | N/D | N/D | 14 | N/D | N/D | 282 | 90 | 77,846 | 1,213 | 46,143 |
| 1988 | 9,000 | 67,475 | 53 | N/D | N/D | 1,290 | 4,453 | N/D | 1,487 | 572 | 49,036 | 6,833 | 33,514 |
| 1989 | 7,622 | 31,048 | 65 | N/D | N/D | 1,300 | 2,153 | N/D | 1,565 | 563 | 48,119 | 5,078 | 28,924 |
| 1990 | N/D | 21,088 | 92 | 0 | N/D | 250 | 1,011 | N/D | N/D | 844 | 6,126 | 1,893 | 10,239 |
| 1991 | 14,008 | 17,241 | 161 | N/D | N/D | N/D | 2,026 | N/D | N/D | 319 | 42,062 | 4,303 | 25,211 |
| 1992 | 6,362 | 12,708 | 344 | 0 | N/D | 730 | 600 | N/D | 999 | 237 | 40,545 | 1,497 | 11,267 |
| 1993 | 6,703 | 18,616 | 528 | 38 | N/D | -650 | 1,246 | 1 | 1,975 | 61 | 42,914 | 4,672 | 39,410 |
| 1994 | 10,890 | 43,265 | 598 | 2 | N/D | 474 | 2,546 | 0 | 1,081 | 723 | 53,584 | 3,641 | 40,087 |
| 1995 | 14,237 | 83,192 | 323 | 200 | 445 | 7,500 | 9,298 | 2 | N/D | 320 | 72,061 | 5,414 | 86,828 |
| 1996 | 27,900 | 73,587 | 1,337 | 2 | 500 | 1,413 | 5,922 | N/D | N/D | 253 | 65,277 | 6,381 | 82,396 |
| 1997 | 25,948 | 101,414 | 4,578 | 2 | 800 | 635 | 8,569 | N/D | 478 | 200 | 65,675 | 3,653 | 57,845 |
| 1998 | 31,090 | 98,308 | 3,079 | 369 | 500 | 20,259 | 4,259 | 47 | 546 | 424 | 18,889 | 6,746 | 66,580 |
| 1999 | 24,230 | 119,899 | 7,075 | 27 | N/D | 3,679 | 8,003 | N/D | N/D | 560 | 12,927 | 3,731 | 65,099 |
| 2000 | 14,955 | 75,106 | 4,194 | 27 | 714 | 4,118 | 6,687 | 19 | N/D | 544 | 132,863 | 3,657 | 110,219 |
| 2001 | 23,392 | 125,686 | 3,327 | 39 | N/D | 9,605 | 10,865 | N/D | N/D | 1,104 | 203,515 | 4,135 | 147,134 |
| 2002 | 24,051 | 463,296 | 2,669 | N/D | 3,415 | 8,785 | 16,071 | 66 | 2,611 | 1,594 | 125,670 | 4,189 | 134,069 |
| 2003 | 28,316 | 153,045 | 2,797 | 81 | 3,310 | 4,398 | 9,475 | 25 | 2,426 | 1,426 | 104,922 | 8,662 | 178,629 |
| 2004 | 14390 | 92,090 | 5,098 | 0 | 2,456 | 7,390 | 6,365 | 98 | 1,192 | 998 | 72,921 | 4,202 | 122,630~~513~~ |
| 2005 | 15048 | 165,259 | 6,435 | 37 | 4,255 | 10,625 | 14,824 | 69 | 2,426 | 1,150 | 69,704 | 1,835 | 875,028~~349~~ |
| [2006] | 8,127 ~~N/D~~ | 77,510 ~~N/D~~ | 5,111~~N/D~~ | 299 | 1920 ~~N/D~~ | 4579 | 8,422 ~~N/D~~ | 77 | 1,403 ~~N/D~~ | 1,002 | 93,281 ~~N/D~~ | 1,952 ~~0~~ | 29,728 ~~N/D~~ |
| [2007] | 2,559 | 21,682 | 3,553 | N/D | 1225 | 4,943 | 4,129 | 194 | 796 | 920 | 27,125 | 2,752 | 13,616 |

Notes:
**DATA FOR [YEARS IN BRACKETS] ARE PRELIMINARY.**
*1 Includes Salmon from the mainstem population that were trapped at Keswick Dam and transported to Coleman National Fish Hatchery (CNFH).
*2 Includes Salmon that are wild spawners as well as hatchery spawned fish.
N/D = No Data.
Source: GrandTab, CDFG, Fisheries Branch, 2006.

Page 7.3-10, Table 7.3-3, is revised as follows:

**TABLE 7.3-3**

**SACRAMENTO RIVER AT RED BLUFF DIVERSION DAM CHINOOK SALMON SPAWNER POPULATIONS**

| Year | Fall Run*1 | Late Fall Run*1 | Winter Run | Spring Run |
|---|---|---|---|---|
| 1960 | 218,940 | N/D | N/D | N/D |
| 1961 | 140,181 | N/D | N/D | N/D |
| 1962 | 127,837 | N/D | N/D | N/D |
| 1963 | 138,881 | N/D | N/D | N/D |
| 1964 | 142,584 | N/D | N/D | N/D |
| 1965 | 101,876 | N/D | N/D | N/D |
| 1966 | 111,881 | N/D | N/D | N/D |
| 1967 | 82,490 | N/D | N/D | N/D |
| 1968 | 98,429 | N/D | N/D | N/D |
| 1969 | 115,652 | N/D | N/D | 20,000 |
| 1970 | 65,142 | N/D | 40,409 | 3,652 |
| 1971 | 53,888 | 16,741 | 53,089 | 5,830 |
| 1972 | 33,958 | 31,559 | 35,929 | 7,038 |
| 1973 | 41,129 | 21,781 | 22,651 | 7,175 |
| 1974 | 47,019 | 6,083 | 18,536 | 3,800 |
| 1975 | 53,129 | 19,261 | 22,579 | 10,234 |
| 1976 | 45,753 | 15,908 | 33,029 | 25,095 |
| 1977 | 16,176 | 9,210 | 16,470 | 11,545 |
| 1978 | 32,235 | 12,479 | 24,735 | 5,669 |
| 1979 | 47,758 | 10,284 | 2,339 | 2,856 |
| 1980 | 21,961 | 9,093 | 1,142 | 9,363 |
| 1981 | 29,212 | 6,571 | 19,795 | 20,655 |
| 1982 | 17,966 | 3,981 | 1,233 | 23,156 |
| 1983 | 26,226 | 14,984 | 1,827 | 3,854 |
| 1984 | 36,965 | 6,540 | 2,662 | 7,823 |
| 1985 | 52,120 | 8,136 | 3,686 | 10,200 |
| 1986 | 68,821 | 7,820 | 2,566 | 15,948 |
| 1987 | 76,562 | 16,222 | 2,068 | 10,911 |
| 1988 | 63,998 | 12,507 | 2,129 | 9,601 |
| 1989 | 48,968 | 12,807 | 635 | 5,131 |
| 1990 | 32,109 | 6,892 | 384 | 3,896 |
| 1991 | 20,523 | 6,611 | 177 | 766 |
| 1992 | 23,914 | 9,356 | 1,159 | 371 |
| 1993 | 33,471 | 739 | 369 | 391 |
| 1994 | 44,729 | 291 | 144 | 862 |
| 1995 | 53,385 | 166 | 1,159 | 349 |
| 1996 | 71,725 | 48 | 1,012 | 378 |
| 1997 | 98,765 | N/D | 836 | 126 |
| 1998 | 5,718 | 38,239 | 2,831 | 1,115 |
| 1999 | 133,365 | 8,683 | 3,264 | N/D |
| 2000 | 87,793 | 8,632 | 1,263 | 71 |
| 2001 | 57,792 | 18,351 | 8,085 | 711 |
| 2002 | 45,523 | 36,004 | 7,348 | 273 |
| 2003 | 66,476 | 5,346 | 8,105 | N/D |
| 2004 | 34,050 | 8,824 | 7,784 | 395 |
| [2005] | 44,950 | 9,570~~65~~ | 15,730 | N/D |
| [2006] | 46,568 | 14,168 | 17,153 | N/D |
| [2007] | 14,097 | 15303 | 2,488 | 248 |

Notes:
*1 Includes Salmon from the mainstem population that were trapped at Keswick Dam and transported to Coleman National Fish Hatchery.
N/D = No Data. ;
**DATA FOR [YEARS IN BRACKETS] ARE PRELIMINARY.**
Source: GrandTab, CDFG, Fisheries Branch, 2006.

Page 7.3-12, second paragraph, after the sixth sentence, the paragraph is revised to read:

> Estimates from the latter part of the 2000's continue to be comparable to estimates from earlier decades. Battle Creek also supports a late fall-run. Numbers of late fall-run Chinook salmon in Battle Creek have trended upward since 1995, reaching its second highest count in 2005 at 6,453. The estimate then declined to 5,111 and 3,553 in 2006 and 2007 respectively. It is likely that the San Joaquin River also once supported a late fall-run, but it is now believed extirpated.[19] For late fall-run Chinook salmon numbers relevant to this EIR, see Tables 7.3-2 and 7.3-3.

Page 7.3-12, third paragraph, the first sentence is revised to read:

> Historically, fall-run Chinook were in all Central Valley streams that had enough water during the fall.

Page 7.3-12, third paragraph, the fourth and fifth sentences are revised to read:

> Fall-run totals at the RBDD during the 2000's (including 2005 and 2006) have been comparable to the 1970's, 1980's, and 1990's. However, the preliminary estimates for 2007 are the second lowest estimate for the 47 year period.

Page 7.3-15, Table 7.3-5 is revised as follows:

**TABLE 7.3-5**

**SPECIAL STATUS FISH SPECIES AND DESIGNATED CRITICAL HABITAT WITHIN THE SACRAMENTO-SAN JOAQUIN DELTA IN 1995 AND 2003**

| Species | 1995 Status (date) (source) | 2003 Status (date) (source) | Critical Habitat |
|---|---|---|---|
| River Lamprey<br>*Lampetra ayresi* | Class 3 (1) | State and Federal Species of Concern (2) | |
| Pacific Lamprey<br>*Lampetra tridentata* | Class 4 (1)[B] | Federal Species of Concern (2) | |
| Kern Brook Lamprey<br>*Lampetra hubbsi* | Class 2 (1) | State and Federal Species of Concern (2) | |
| Green Sturgeon<br>*Acipenser medirostris* | Class 1-T (1) | State Species of Concern (2) | |
| Chinook<br>*Oncorhynchus tshawytscha* | | | |
| Winter Run | State (9/89)and Federal Endangered (1/94) (59 FR 440) | State (9/89)and Federal Endangered | 6/93 (58 FR 33212) |
| Spring Run | State (9/89)and Federal ThreatenedClass 1-E (1) | State (2/99) and Federal Threatened (9/99) (64 FR 57399) | |
| Fall/Late Fall Run | Fall Run: Class 4 (1)<br>Late Fall: Class 2 (1) | Listing Not Warranted - Candidate (9/99) (64 FR 57399) | |
| Central Valley Steelhead<br>*Oncorhynchus mykiss* | Class 4 (1)[C] | Federal Threatened (3/98) (63 FR 13347) | |
| Delta Smelt<br>*Hypomesus transpacificus* | State (12/93) and Federal Threatened (3/93) (58 FR 12854) | No Change | 12/94 (59 FR 65256) |
| Longfin Smelt<br>*Spirinchus thaleichthys* | Class 1 (1) | Species of Concern (2) | |

**TABLE 7.3-5**

**SPECIAL STATUS FISH SPECIES AND DESIGNATED CRITICAL HABITAT WITHIN THE SACRAMENTO-SAN JOAQUIN DELTA IN 1995 AND 2003**

| Species | 1995 Status (date) (source) | 2003 Status (date) (source) | Critical Habitat |
|---|---|---|---|
| Sacramento Splittail *Pogonichthys macrolepidotus* | Proposed for listing as threatened (64 FR 5963) | Federal Threatened status remanded (9/03) (68 FR 55140) | |

Notes: Unfortunately, when a species is designated a Species of Concern by one of the regulatory agencies, there is not a listing date associated with this action that could be used to sort species into the appropriate timeframe discussion. Because of this, the species categorized as Class 1 or Class 2 in *Fish Species of Special Concern in California*,[1] are considered to represent the State and Federal Species of Concern for the 1995 environmental setting.

A. From Moyle et al. (1995):
- Class 1-E: Those species that meet the State or federal definitions as endangered.
- Class 1-T: Those species that meet the State or federal definitions as threatened.
- Class 2: Species of special concern. These are species with scattered or very localized populations. Considered equivalent of the 2003 Species of Special Concern status.
- Class 3: A "watch list" designation for species whose range is much restricted in comparison to historic conditions.
- Class 4: Populations that are apparently secure.

B. Noted as being in decline (Moyle et al. 1995).

C. "Winter steelhead" were noted as being in decline and probably deserving of being Class 3 (Moyle et al. 1995).

Sources:
1. Moyle, P.B., R.M. Yoshiyama, J.E. Williams, and E.D. Wikramanayake. 1995. Fish species of special concern of California. Final report prepared for State of California, Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California.
2. CDFG (California Department of Fish and Game) 2008~~3d~~. Special Animals list, ~~July~~ May 2008~~3~~. Available online at: ~~http://www.dfg.ca.gov/hcpb/species/lists.shtml.~~ http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf

Page 7.3-17, the following text is added to the fourth paragraph after the third sentence:

> The reservoir supports an excellent sport fishery for striped bass. The striped bass population is non-reproducing and is thought to be replenished by the pumping of small bass through the California Aqueduct.

Page 7.3-18, the following text is added to the end of the first paragraph:

> Largemouth bass are non-native and are predators on special status fish species.

Page 7.3-24, the following text is added to the end of the third paragraph:

> It should be noted that there is no established relationship between young-of-year populations of striped bass and adult population levels.

Page 7.3-24, fourth paragraph, the seventh and eight sentences are revised to read:

> Life histories~~y background~~ for two ~~three~~ of the POD fishes (longfin smelt and, delta smelt~~, and splittail~~) and splittail ~~is~~ are provided below. Department monitoring, through the ~~Interagency Ecological Program (~~IEP~~)~~, has found the POD is likely restricted to pelagic fishes dependent on the upper estuary (Suisun Bay and the Delta).

Page 7.3-25, Table 7.3-13 is revised, and the text following is added:

**TABLE 7.3-13**

**SUMMARY OF THE PRIMARY ENVIRONMENTAL STRESSORS BEING EVALUATED AS PART OF THE PELAGIC ORGANISM DECLINE INVESTIGATIONS**

| Stressor Group | Stressor Subgroups | Affected fish life stage or time of year |
|---|---|---|
| Water Project Operations | ➢ Winter entrainment<br>➢ Spring entrainment<br>➢ Fall habitat<br>➢ Entrainment of lower trophic-level | ➢ Spawning adults<br>➢ Larvae<br>➢ Juveniles/maturing adults<br>➢ Juveniles |
| Food Web Changes | ➢ Smelt-copepod co-occurrence<br>➢ Pelagic productivity sinks<br>➢ Benthic productivity sinks<br>➢ Increase in predation | ➢ Juveniles<br>➢ Juveniles<br>➢ Larvae-juveniles<br>➢ All |
| Contaminants | ➢ Ambient water toxicity<br>➢ Pyrethroids<br>➢ Microcystis blooms | ➢ All year<br>➢ All year<br>➢ Late summer/fall |

**POD Update: 2007 Synthesis of Results**

Results from a number of recent POD studies have been reported and synthesized into a progress report.[1] The progress report highlights the latest research regarding a number of factors which may collectively contribute to POD. While many of these results are preliminary and currently not yet peer reviewed, they do represent the latest thinking regarding POD and as such are discussed here briefly.

Results indicate that stock-recruitment mechanisms and survival among life stages has changed from pre-POD times. Low population abundance levels, currently outside the historical realm of variability, appears to have reduced ability to rebound from declines. In particular, due to their critically low numbers delta smelt populations may experience a decline in reproductive output, further reducing their ability to rebound from the population decline.

The progress report also highlights the importance of associations between POD and the declining quality of important environmental variables such as Secchi depth (i.e., water clarity or turbidity), specific conductance (a surrogate for salinity), and water temperature. Long-term data show that habitat quality and population abundance estimates have both declined for delta smelt and striped bass. Toxic effects from both man-made and natural toxins were also investigated.

Predation and water diversions were also identified as contributors to POD, although both are considered unlikely single causes for POD. One predator, largemouth bass (*Micropterus salmoides*), has increased coincident with a rise in submerged aquatic vegetation and may contribute to increased predation within the Delta. Results also show that entrainment at the CVP and SWP pumps, may be important in some years for some species of fish. Research also suggests that an increase in exports, shifts in

1 Baxter, R., R. Breuer, L. Brown, M. Chotkowski, F. Feyrer, M. Gingras, B. Herbold, A. Mueller-Solger, M. Nobriga, T. Sommer, and K. Souza. 2008. Pelagic Organism Decline Progress Report: 2007 Synthesis of Results. Interagency Ecological Program submitted to the California State Water Resources Control Board January 16, 2008, www.waterrights.ca.gov/baydelta/pelagicorganism.html. Accessed March 5, 2008.

tributary inflows (San Joaquin and Sacramento Rivers) and an increase in the duration of the operation of the South Delta Barriers may have contributed to a shift in hydrodynamics, increasing fish entrainment.

Study results show that SWP operations as a whole (i.e., not the proposed project) that have led to the changes in conditions of the Delta may have indirectly helped to promote invasive species. Competition and predation from invasive species are also considered a stressor to POD.

Other findings highlight recent changes in the species composition of important prey items (zooplankton). Research in progress may clarify whether this shift in prey items may come at an energetic cost to the POD fish. Researchers will continue to investigate the numerous factors currently considered to be contributing to the Pelagic Organism Decline.

Page 7.3-25, the paragraphs following Table 7.3-13 and continuing on page 7.3-26, the text is revised as follows:

**Note:** The Department recognized~~s~~ that during the 2007 calendar year there had~~s~~ been a continued decline in pelagic fisheries within the San Francisco Estuary, most notably the delta smelt. The operation of the SWP, with emphasis on water ~~deliveries~~ exports via Banks Pumping Plant, ~~i~~was undergoing increased scrutiny from the public and various groups concerned about the health of fisheries and the Delta ecosystem. On May 31, 2007, the Department shut down the pumps at Banks after record low number of delta smelt. On June 8, 2007, limited pumping resumed to meet critical water needs. Increasingly, fish species in the Delta face stressors that include competition with invasive species, toxicity run-off from surrounding farms, and a shortage of food sources. Additional information is currently being obtained regarding the multiple threats currently faced in the Delta and San Francisco Estuary. The Department continues to follow all legal environmental restrictions regarding the timing and amount of water that is pumped at Banks. As new scientific data and legal environmental issues surface regarding the SWP operation in the Delta, the Department will continue to evolve its SWP operation strategies to ensure environmental compliance and SWP contractor exports. In winter 2008 a new POD synthesis report ~~will be~~ was made available that ~~will~~ included all the latest scientific data and information as it pertains to the Delta and the POD.

~~at Banks after record low number of delta smelt. On June 8, 2007, limited pumping resumed to meet critical water needs. Increasingly, fish species in the Delta face stressors that include competition with invasive species, toxicity run-off from surrounding farms, and a shortage of food sources. Additional information is currently being obtained regarding the multiple threats currently faced in the Delta and San Francisco Estuary. The Department continues to follow all legal environmental restrictions regarding the timing and amount of water that is pumped at Banks. As new scientific data and legal environmental issues surface regarding the SWP operation in the Delta, the Department will continue to evolve its SWP operation strategies to ensure environmental compliance and SWP contractor fulfillment. In Fall 2007 a new POD synthesis report will be available that will include all the latest scientific data and information as it pertains to the Delta and the POD.~~

Page 7.3-26, the first and second full paragraphs have been revised to read:

**Longfin Smelt (Spirinchus thaleichthys)**

The San Francisco Estuary population of longfin smelt is the southernmost along the U.S. Pacific Coast. Most longfin smelt live two to three years. They spawn in tidal freshwaters of the Delta, Suisun Bay/Marsh, and probably other suitable locations such as the Napa River. Most spawning occurs between February and April, though spawning can occur well before and after the peak period. Larvae drift downstream and generally have population epicenters at X2. The juvenile and adult longfin smelt rear in brackish to marine waters throughout San Francisco Estuary and the adjacent coastal ocean. San Francisco Estuary longfin smelt population abundance fluctuates in response to Delta river outflows, being higher in years of high spring flow.[71] Although, t~~T~~he flow versus abundance relationship for longfin smelt did not change~~d~~ coincident with the invasion of overbite clam, *Corbula amurensis*.~~;~~ the invasion and the associated changes in the food web did reduce the magnitude of the response[72] fewer longfin smelt are now produced per unit flow as indexed by X2. The CDFG FMWT~~FallMidwaterTrawl~~ has monitored longfin smelt population trends since 1967. The maximum abundance index (81,790) was recorded in 1967. The indices averaged 17,060 per year for the pre-overbite clam period, 1967-1986. Since then (although the indices have averaged 1,621~~775~~ per year, with a maximum of 8,646 in 1995) there has been considerable variation. Population index was 129 in 2005; 1949 in 2006; and 13, a record low in 2007. On February 7, 2008 the California Fish and Game Commission accepted a petition to list longfin smelt under the California Endangered Species Act (CESA). Therefore, longfin smelt is a Candidate species under California law. USFWS is also looking at the status of the longfin smelt and may list the fish under Federal law. The SWP currently operates under an emergency regulation for take of longfin smelt. ~~Even after the overbite clam invasion, longfin smelt larvae were the most numerous species collected during the first seven years of the CDFG 20mm Survey of post-larval fishes. This suggests young longfin smelt still comprise a dominant portion of spring pelagic fish biomass in the upper estuary and Delta.~~

**Delta Smelt (Hypomesus transpacificus)**

Delta smelt is a landlocked relative of the surf smelt, *Hypomesus pretiosus*, and is endemic to the San Francisco Estuary. Most delta smelt live one year. They spawn in tidal freshwaters of the Delta, Suisun Bay/Marsh, and the Napa River. Most spawning occurs between March and May, though spawning can occur before and after the peak period. Larvae drift downstream and generally have population epicenters about 20 kilometers upstream of X2. Juvenile and adult delta smelt rear in fresh to brackish waters of Suisun Bay and the lower Sacramento River. Delta smelt population trends have fluctuated unpredictably through time. This suggests the delta smelt population is subjected to several significant drivers that cannot be readily aggregated into a variable like X2. The CDFG FMWT~~Fall Midwater Trawl~~ has monitored delta smelt population trends since 1967 (Table 7.3-14). The maximum abundance index (1,673) was recorded in 1970; a nearly equivalent index (1,653) was recorded in 1980. In the past three years (2005, 2006, and 2007), however, population estimates have dropped to the three lowest estimates recorded in FMWT history: 27, 41, 28. Delta smelt is both federally and State listed as a threatened species. Delta smelt ~~larvae~~ were the eighth most numerous

72. Kimmerer, W.J. 2002. Effects of freshwater flow on abundance of estuarine organisms: physical effects or trophic linkages. Marine Ecology Progress Series 243:39-55.

species collected during the first seven years of the CDFG 20mm Survey of post-larval fishes.

In March 1993, delta smelt were listed as threatened by USFWS under the federal ESA. On June 7, 2007, delta smelt became a CESA Candidate Endangered Species.

Page 7.3-27, Table 7.3-14, is revised as follows:

**TABLE 7.3-14**

**ADULT DELTA SMELT RECOVERY INDEX (BASED ON FALL MID-WATER TRAWL SURVEY)**

| Year | Recovery Index | Year | Recovery Index |
|---|---|---|---|
| 1967 | 139 | 1988 | 67 |
| 1968 | 251 | 1989 | 76 |
| 1969 | 128 | 1990 | 81 |
| 1970 | 598 | 1991 | 171 |
| 1971 | 352 | 1992 | 26 |
| 1972 | 551 | 1993 | 400 |
| 1973 | 305 | 1994 | 19 |
| 1974 | No Data | 1995 | 252 |
| 1975 | 239 | 1996 | 28 |
| 1976 | 22 | 1997 | 62 |
| 1977 | 146 | 1998 | 169 |
| 1978 | 108 | 1999 | 322 |
| 1979 | No Data | 2000 | 265 |
| 1980 | 312 | 2001 | 314 |
| 1981 | 78 | 2002 | 33 |
| 1982 | 37 | 2003 | 101 |
| 1983 | 17 | 2004 | 25 |
| 1984 | 51 | 2005 | 4 |
| 1985 | 29 | 2006 | 21 |
| 1986 | 70 | 2007 | 5 |
| 1987 | 72 | 2008 | 2 |

Source: Emergency Petition to list the delta smelt as an endangered species under the ESA. Center for Biological Diversity, The Bay Institute, Natural Resource Defense Council. March 8, 2005. 2006 and 2007 updates from Delta Native Fishes Recovery; U.S. Fish and Wildlife Service.

Page 7.3-27, and continuing on page 7.3-28, the last paragraph is a duplicate, and has been deleted:

~~**Splittail (*Pogonichthys macrolepidotus*)**~~

~~Splittail are a large cyprinid fish species endemic to the San Francisco Estuary and its watershed. Splittail can sexually mature at two years; most splittail seem to live at least five years and ages up to eight have been recorded. Splittail spawn on flooded vegetation, mainly during February through May. Splittail spawning habitat is greatly increased during periods of floodplain inundation in the Sacramento and San Joaquin basins. Consequently, like longfin smelt, splittail populations have fluctuated in response to river flows as indexed by X2. Unlike longfin smelt, the invasion of overbite clam did not affect the X2-abundance relationship for splittail, presumably because the young fish are not dependent on the upper estuary pelagic food web. Young splittail feed on zooplankton, insect larvae, and miscellaneous benthic invertebrates, including overbite clams. Larval splittail typically rear in shallow freshwater habitats; juveniles may~~

~~migrate into brackish water habitats. Juvenile and adult splittail are physiologically hardy and are very tolerant of estuarine conditions (elevated salinity, low dissolved oxygen, and high water temperatures). Splittail are not readily collected by the CDFG trawling surveys because they are often distributed in very shallow water. However, their annual abundance trends have been indexed by the FMWT Survey since 1967. The index has averaged 32 per year, with a maximum index of 281 in 1998.~~

Page 7.3-37, Table 7.3-19 is revised as follows:

**TABLE 7.3-19**

**AVERAGE MONTHLY FLOW CHANGES FOR PROPOSED PROJECT COMPARED TO BASELINE UNDER 2020 CONDITIONS (AF, %)**

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | TOT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2020 Monthly Flow Change Due to Change in Deliveries, AF** | | | | | | | | | | | | |
| **Feather River Region: Butte, Plumas, Yuba City** | | | | | | | | | | | | | |
| Monterey Plus 2020 Monthly Delivery Increase | | | | | | | | | | | | | |
| 22-94 Avg | -20~~,000~~ | -0 | -0 | -0 | -0 | -0 | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -20~~,000~~ | -20~~,000~~ | -20~~,000~~ | -120~~,000~~ |
| 22-94 Wet | -20~~,000~~ | -0 | -0 | -0 | -0 | -0 | -20~~,000~~ | -20~~,000~~ | -20~~,000~~ | -20~~,000~~ | -20~~,000~~ | -30~~,000~~ | -170~~,000~~ |
| 22-94 AN | -10~~,000~~ | -0 | -0 | -0 | -0 | -0 | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -70~~,000~~ |
| 22-94 BN | -30~~,000~~ | -0 | -0 | -0 | -0 | -10~~,000~~ | -20~~,000~~ | -20~~,000~~ | -20~~,000~~ | -20~~,000~~ | -30~~,000~~ | -40~~,000~~ | -190~~,000~~ |
| 22-94 Dry | -10~~,000~~ | -0 | -0 | -0 | -0 | -0 | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -70~~,000~~ |
| 22-94 Crit | -20~~,000~~ | -10~~,000~~ | -0 | -0 | -0 | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -10~~,000~~ | -20~~,000~~ | -20~~,000~~ | -10~~,000~~ | -110~~,000~~ |
| **North Bay Region: Feather River Region, Solano, Napa** | | | | | | | | | | | | | |
| Monterey Plus 2020 Monthly Delivery Increase | | | | | | | | | | | | | |
| 22-94 Avg | -700~~,000~~ | -590~~,000~~ | -600~~,000~~ | -330~~,000~~ | -370~~,000~~ | -460~~,000~~ | -600~~,000~~ | -660~~,000~~ | -680~~,000~~ | -700~~,000~~ | -700~~,000~~ | -680~~,000~~ | -7,070~~,000~~ |
| 22-94 Wet | -1,090~~,000~~ | -920~~,000~~ | -960~~,000~~ | -680~~,000~~ | -740~~,000~~ | -840~~,000~~ | -1,020~~,000~~ | -1,100~~,000~~ | -1,130~~,000~~ | -1,170~~,000~~ | -1,170~~,000~~ | -1,130~~,000~~ | -11,950~~,000~~ |
| 22-94 AN | -800~~,000~~ | -670~~,000~~ | -660~~,000~~ | -400~~,000~~ | -540~~,000~~ | -710~~,000~~ | -900~~,000~~ | -970~~,000~~ | -990~~,000~~ | -1,030~~,000~~ | -1,030~~,000~~ | -990~~,000~~ | -9,690~~,000~~ |
| 22-94 BN | -730~~,000~~ | -620~~,000~~ | -630~~,000~~ | -290~~,000~~ | -320~~,000~~ | -450~~,000~~ | -630~~,000~~ | -730~~,000~~ | -750~~,000~~ | -770~~,000~~ | -770~~,000~~ | -750~~,000~~ | -7,450~~,000~~ |
| 22-94 Dry | -340~~,000~~ | -280~~,000~~ | -280~~,000~~ | -140~~,000~~ | -150~~,000~~ | -190~~,000~~ | -290~~,000~~ | -320~~,000~~ | -330~~,000~~ | -340~~,000~~ | -340~~,000~~ | -330~~,000~~ | -3,320~~,000~~ |
| 22-94 Crit | -150~~,000~~ | -120~~,000~~ | -130~~,000~~ | -40~~,000~~ | -40~~,000~~ | -50~~,000~~ | -60~~,000~~ | -70~~,000~~ | -70~~,000~~ | -70~~,000~~ | -70~~,000~~ | -70~~,000~~ | -920~~,000~~ |
| | **2020 Monthly Baseline River Flows, AF** | | | | | | | | | | | | |
| **2020 Feather River Baseline Flows** | | | | | | | | | | | | | |
| 22-94 Avg | 153,000 | 130,000 | 222,000 | 284,000 | 317,000 | 368,000 | 189,000 | 224,000 | 280,000 | 431,000 | 293,000 | 125,000 | 3,015,000 |
| 22-94 Wet | 171,000 | 175,000 | 389,000 | 621,000 | 653,000 | 738,000 | 413,000 | 456,000 | 338,000 | 445,000 | 232,000 | 101,000 | 4,733,000 |
| 22-94 AN | 152,000 | 105,000 | 222,000 | 289,000 | 391,000 | 541,000 | 151,000 | 274,000 | 261,000 | 519,000 | 362,000 | 114,000 | 3,381,000 |
| 22-94 BN | 155,000 | 119,000 | 148,000 | 164,000 | 211,000 | 189,000 | 80,000 | 105,000 | 329,000 | 515,000 | 406,000 | 140,000 | 2,560,000 |
| 22-94 Dry | 142,000 | 103,000 | 138,000 | 93,000 | 90,000 | 133,000 | 94,000 | 101,000 | 257,000 | 420,000 | 314,000 | 143,000 | 2,030,000 |
| 22-94 Crit | 132,000 | 119,000 | 128,000 | 82,000 | 91,000 | 101,000 | 81,000 | 82,000 | 165,000 | 248,000 | 183,000 | 132,000 | 1,545,000 |
| **2020 Sacramento River Baseline Flows** | | | | | | | | | | | | | |
| 22-94 Avg | 754,000 | 924,000 | 1,530,000 | 2,009,000 | 2,186,000 | 2,102,000 | 1,462,000 | 1,180,000 | 1,038,000 | 1,130,000 | 880,000 | 770,000 | 15,965,000 |
| 22-94 Wet | 898,000 | 1,296,000 | 2,824,000 | 3,427,000 | 3,402,000 | 3,226,000 | 2,531,000 | 1,992,000 | 1,406,000 | 1,246,000 | 950,000 | 1,003,000 | 24,201,000 |
| 22-94 AN | 726,000 | 958,000 | 1,356,000 | 2,730,000 | 2,940,000 | 3,104,000 | 1,746,000 | 1,362,000 | 1,086,000 | 1,301,000 | 980,000 | 798,000 | 19,086,000 |
| 22-94 BN | 720,000 | 798,000 | 1,098,000 | 1,520,000 | 1,969,000 | 1,611,000 | 1,112,000 | 948,000 | 1,049,000 | 1,213,000 | 969,000 | 741,000 | 13,749,000 |
| 22-94 Dry | 686,000 | 774,000 | 927,000 | 978,000 | 1,295,000 | 1,383,000 | 830,000 | 734,000 | 827,000 | 1,077,000 | 838,000 | 688,000 | 11,039,000 |
| 22-94 Crit | 657,000 | 592,000 | 716,000 | 875,000 | 872,000 | 829,000 | 606,000 | 470,000 | 623,000 | 758,000 | 626,000 | 480,000 | 8,103,000 |

Page 7.3-40, third paragraph, the first sentence is revised to read:

> At most, the proposed project under 2003 conditions may result in minor decreases in Sacramento River flow downstream of the Feather River as compared to the baseline scenario.

Page 7-3-40, fifth paragraph, the second sentence is revised to read:

> The maximum monthly delivery increases would be up to about 1,170 ~~T~~AF ~~(11,700,000 AF)~~ in June through September of wet years as shown in Table 7.3-19.

Page 7.3-46, Table 7.3-22 is revised as follows:

**TABLE 7.3-22**

**SOUTH DELTA AND SALVAGE CONDITIONS DURING MONTEREY AMENDMENT-INDUCED PUMPING EVENTS FROM 1996 TO 2004[A]**
**EVENT 1**

| | Historical Conditions | | | | | | Estimated Monterey Amendment-Induced Banks Pumping | | |
|---|---|---|---|---|---|---|---|---|---|
| **Date** | **Banks Pumping (cfs)** | **Banks Pumping (AF)** | **Delta Outflow (AF)** | **Delta Smelt Salvage** | **Splittail Salvage** | **Old and Middle River Flow (cfs)** | **Days with Induced Banks Pumping** | **Estimated Increase in Banks Pumping[b] (AF)** | **Increased Pumping as % of Delta Outflow** |
| 6-Jan-98 | 6,046 | 11,971 | 50,975 | 12 | 18 | -8,180 | | | |
| 7-Jan-98 | 6,722 | 13,310 | 42,889 | 32 | 18 | -8,780 | | | |
| 8-Jan-98 | 7,068 | 13,995 | 37,048 | 12 | 12 | -9,010 | | | |
| 9-Jan-98 | 7,250 | 14,355 | 35,391 | 8 | 12 | -9,210 | | | |
| 10-Jan-98 | 7,246 | 14,347 | 39,285 | 12 | 126 | -8,700 | | | |
| 11-Jan-98 | 7,292 | 14,438 | 42,922 | 16 | 98 | -8,320 | | | |
| 12-Jan-98 | 7,340 | 14,533 | 80,832 | 0 | 90 | -8,500 | | | |
| 13-Jan-98 | 7,465 | 14,781 | 118,687 | 8 | 12 | -6,710 | X (3 hours) | 1,000 ~~10,821~~ | 0.84 ~~9.117%~~ |
| 14-Jan-98 | 76 | 150 | 148,787 | 0 | 0 | -2,672 | | | |
| 15-Jan-98 | 76 | 150 | 170,551 | 0 | 0 | -594 | | | |
| 16-Jan-98 | 74 | 147 | 209,504 | 0 | 0 | 229 | | | |
| 17-Jan-98 | 69 | 137 | 239,693 | 0 | 0 | 1,281 | | | |
| 18-Jan-98 | 76 | 150 | 260,661 | 0 | 0 | 1,353 | | | |
| 19-Jan-98 | 70 | 139 | 269,036 | 0 | 0 | 2,476 | | | |
| 20-Jan-98 | 74 | 147 | 259,226 | 0 | 0 | 2,730 | | | |

Notes:
a. Based on results from the historical operations analysis, which is intended to estimate the actual impacts of the Monterey Amendment on Delta exports from the Banks Pumping Plant from 1996 to 2004.
b. The estimated increase in Banks Pumping shown is part of the actual historical pumping that occurred during this period.

Page 7.3-53, the end of item number four is revised as follows:

> The EWA program relies on continuous monitoring of fish distribution and density in the Delta, combined with assessment of the risk to the fish from Delta export pumping, to identify periods when pumping changes can best benefit fish. See pages 6-12 to 6-14 for a description of the EWA program. ~~When there are fish species of concern present near the pumps, the Management Agencies recommended make decisions regarding use of EWA assets that are carried out by~~

~~the Project Agencies that. pumping at Banks Pumping Plant and/or Jones Pumping Plant can be curtailed to lower pumping rates to protect fish by reducing salvage at the pumps or to control in-Delta channel flows to avoid attracting fish (especially delta smelt) toward the pumps.~~

Page 7.3-67, first paragraph, the third sentence is revised to read:

> Based on the fact that the water supply management practices would have sustained similar pumping patterns to those that occurred prior to the impact period, the water supply management practices would have possibly contributed to an increase ~~aided~~ in the salvage numbers.

Page 7.3-72, Mitigation Measure 7.3-5 is revised as follows:

> 7.3-5 *The Department shall ~~implement operational assets that could be deployed through a continuation of the EWA, through an equivalent type of program, or through another project that would replace the EWA and provide the fish protection required by the court and the Biological Opinions on delta smelt and Chinook salmon that would limit any adverse impact resulting from the proposed project on special status Delta fish species as a result of higher pumping at Banks during periods when san Luis Reservoir, absent of the proposed project, would be full.~~ continue to operate the SWP Delta export facilities in compliance with requirements of federal and State agencies in effect at the time of operation to avoid, reduce, or minimize potential impacts on the Delta aquatic environment including water quality, listed species and other aquatic resources caused by SWP pumping attributable to the proposed project.*

Page 7.3-77, the first paragraph under the heading “1996 — 2003,” the second-to-last sentence is revised to read:

> See discussion in 6.4.3~~.1~~ for a further description of this provision on SWP operations.

Page 7.3-80, second paragraph under the heading “Future Impacts,” the last sentence is revised to read:

> Although this worst-case condition could occur, it would be unlikely (see Section 6.4.3~~.1~~).

Page 7.4-10, a source at bottom of Table 7.4-2 has been added:

> California Department of Fish and Game Natural Diversity Data Base, May, 2003.

Page 7.4-17, the following sources have been added to the bottom of Table 7.4-3:

> Sources:
> USFWS List of Candidate Fauna from California and Nevada as of 31 August 1994 (59 FR 58982).
> Endangered and Threatened Wildlife and Plants 50 CFR 17.11 and 17.12, August 20, 1994.
> State and Federal Endangered Animals for California and Listing Dates, Department of Fish and Game, Revised January 1994.
> California Department of Fish and Game Natural Diversity Data Base Special Animals, December 1992 (The 1994 version could not be located).
> California Department of Fish and Game Natural Diversity Data Base, May, 2003.

Page 7.4-21, the second paragraph is revised to read, and the third paragraph is deleted:

> As discussed in Section 7.6, Agricultural Resources, there is no strong evidence to support a conclusion that land was taken out of irrigated production as a result of the proposed project. Although the proposed project resulted in a reduction of agricultural contractor's share of SWP Table A amount on an annual average basis, it increased the reliability of their supplies. As a result, the risk associated with planting permanent crops was reduced. The proposed project could have, therefore, accelerated an existing trend toward more permanent crops. A change in the amount and type of agricultural production could affect the availability and utilization of agricultural habitat by wildlife. Permanent crops such as orchard crops provide lower quality habitat than row crops due to increased cover, pesticide/herbicide applications and frequent disturbance. However, no clear trend can be attributed to the proposed project that can be discerned for the period between 1996 and 2003.
>
> ~~The increased reliability in water supply could have affected the amount and types of agricultural production, which in turn affected the availability and utilization of agricultural habitat by wildlife. As a result (and due in part to economic benefits) farmers have, in some cases, replaced annual crops with permanent orchard crops such as grapes and almonds because they can depend on receiving water allocations annually, instead of being subject to drought conditions. Orchard crops provide even lower quality habitat than row crops due to increased cover, pesticide/herbicide applications and frequent disturbance.~~

Page 7.4-25, insert the following bullet after the first bullet in the list:

- KWBA Mitigation Parcel – a 635-acre conservation easement has been established for the KWBA. This easement will be managed by KWBA in accordance with the management plan established for the area (see DEIR Appendix E, p. 23).

Page 7.4-27, third paragraph, the following sentence is added between first and second sentences:

> Under the Settlement Agreement, the parties recognize that the Addendum has been completed and agree not to challenge the mitigation measures (Settlement Agreement, III.F).

Page 7.4-32, third paragraph, the following text is added after the third sentence:

> As discussed in Section 7.3, a reduction in lake levels could reduce overall fish populations, a food source for the bald eagle~~, which use the lake for foraging and for water supply~~. The number of bald eagles is generally reported for southern California reservoirs as 2 to 10 eagles between November and March each year (Stephenson and Calcarone 1999). The number of bald eagles at Castaic Lake is unknown, and is likely to be low although an occasional transient or wintering bald eagle may be found at the lake in the winter.

Page 7.4-33, second paragraph, the first two sentences are revised to read:

> Lake Perris provides a water supply and foraging habitat for ~~supports a variety of~~ special-status species (Table 7.4-2), including the osprey (*Pandion haliaetus*), greater

western mastiff bat, ~~and~~ Yuma myotis (*Myotis yumanensis*), and~~that use the lake for foraging and water supply. Additionally, two special status species, the~~ double-crested cormorant (*Phalacrocorax auritus*)~~, and the bald eagle, are known to winter at Lake Perris~~. The bald eagle (*Heliaeetus leucocephalus*) is also occasionally observed foraging during the winter at the reservoir.

Page 7.4-34, first full paragraph, the second sentence is deleted:

~~Additionally, in 2007 the California gnatcatcher (*Polioptila californica*) was observed using the riparian corridor.~~

Page 7.4-34 the following text is added to the end of the fourth full paragraph:

As discussed above, the riparian habitat at Lake Perris supports a variety of special-status species. Additionally, in 2007 the coastal California gnatcatcher (*Polioptila californica californica*), a federally-listed threatened species, typically associated with upland scrub habitat, was observed foraging in the riparian corridor of Lake Perris.

Page 7.5-3, first paragraph, the first and second sentences are revised to read:

The Kern Fan Element consists of ~~20,546~~ 19,900 acres of land located in Kern County, ~~and Kings counties~~, southwest of Bakersfield. The K~~ern Fan Element~~ property acreage lies on both sides of the Kern River but does not include the river itself, or the lands within the river levees.

Page 7.5-13, the first paragraph under the heading “1996 — 2003” is revised to read:

~~Prior to~~ At the end of 1995, approximately 3,034 acres of shallow percolation ponds existed in the Kern Fan Element. The KWBA subsequently constructed the Kern Water Bank Canal; a six-mile long earthen canal extending from the Kern River to the California Aqueduct.[13] Between 1996 and 2003, an additional ~~1,665~~ 4,080 acres were converted to shallow percolation ponds, for a total of ~~4,669~~ 7,114 acres in 2003 in the Kern Fan Element (see DEIR Appendix E, p. 21).

Page 7.5-13, first paragraph under the heading “Future Impacts,” the first sentence is revised to read:

As noted above, between 1996 and 2003, the KWBA built approximately ~~1,665~~ 4,080 acres of shallow percolation ponds within the lands designated as intermittent wetland habitat.

Page 7.5-15, the end of the third paragraph is revised to read:

Although this worst-case condition could occur, it would be unlikely (see Section 6.4.3~~.1~~ in Chapter 6).

Page 7.7-10, first paragraph under the heading “Future Impacts,” the first sentence is revised to read:

Between 1996 and 2003, the KWBA built approximately ~~4,700~~ 4,080 acres of shallow percolation ponds in the Kern Fan Element as part of a groundwater recharge project designed to take advantage of one of the provisions of the Monterey Agreement.

Page 7.7-14, the last paragraph, the last sentence is revised to read:

> Although this worst-case condition could occur, it would be unlikely (see Section 6.4.3~~.1~~ in Chapter 6).

Page 7.7-15, first paragraph, the following text is added after the second sentence:

> Based on these soil characteristics, impacts to air quality from drawdown of Castaic Lake would be less than significant in the future.

Page 7.8-9, the first paragraph under the heading "1996 — 2003" is revised to read:

> Between 1996 and 2003, an additional ~~1,665~~ 4,080 acres were converted to shallow percolation ponds, for a total of ~~4,699~~ 7,114 acres in 2003 in the Kern Fan Element.

Page 7.8-10, the first paragraph under the heading "1996 — 2003," the second and third sentences are revised to read:

> As described in Section 7.1, Surface Water Hydrology, Water Quality, and Water Supply, the average water surface elevation~~s~~ at ~~Castaic Lake~~ ~~and~~ Lake Perris was about four feet higher between 1996 and 2003 than in the pre-Monterey Amendment period before 1995. The average water surface elevation at Castaic Lake from 1996 to 2003 was about 2~~0~~3 feet higher than between 1974 and 1995.

Page 7.8-10, the end of the last paragraph is revised to read:

> Although this worst-case condition could occur, it would be unlikely (see discussion in 6.4.3~~.1~~ in Chapter 6).

Page 7.8-11, second full paragraph, the first sentence is revised, and the following text is added:

> Because the soils at Castaic Lake are characterized as clays~~;~~, even though the slopes are steep along the perimeter, exposed soil would be subject to limited wind and/or water erosion. Therefore, based on soil characteristics, impacts to soil erosion from drawdown of Castaic Lake would be less than significant in the future.

Page 7.9-13, second paragraph under the heading "Castaic Lake," the last sentences is revised to read:

> Although this worst-case condition could occur, it would be unlikely (see discussion in 6.4.3~~.1~~ in Chapter 6).

Page 7.9-14, the end of the second paragraph is revised to read:

> Although this worst-case condition could occur, it would be unlikely (see discussion in 6.4.3~~.1~~ in Chapter 6).

Page 7.10-3, last paragraph, the third sentence is revised to read:

> KWBA also constructed the Kern Water Bank Canal, ~~and~~ a six-mile long earthen canal extending from the Kern River to the California Aqueduct.

Page 7.10-5, the endnote numbers are revised to read:

> 3~~4~~. Jonathon Parker, Kern Water Bank Authority, personal communication with John Davis, EIP team, October 2003.
>
> 4~~5~~. Kern Water Bank Authority, Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan, October 1997.
>
> 5~~6~~. Kern Water Bank Authority, Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan, October 1997.

Page 7.11-5, the beginning of the second full paragraph is revised to read:

> As mentioned previously, by the end of 1995, 3,034 acres of shallow recharge ponds existed in the Kern Fan Element. Kern Water Bank Authority (KWBA) also constructed the Kern Water Bank Canal; ~~and~~ a six-mile long earthen canal extending from the Kern River to the California Aqueduct.[3] Between ~~1998~~ 1996 and 2003, an additional 4,080 acres were converted to shallow recharge basins, for a total of ~~4,699~~ 7,114 acres in 2003 in the Kern Fan Element (see DEIR Appendix E, p. 21).

Page 7.12-6, first full paragraph, the first sentence is revised to read:

> The Kern Fan Element consists of ~~20,546~~ 19,900 acres of land located in Kern County southwest of Bakersfield.

Page 7.12-13, the first and second paragraphs under the heading, “1996 — 2003” are revised to read:

> The Monterey Amendment calls for ownership of the Kern Fan Element to be transferred from the Department to the KCWA. The transfer agreement was entered in 1995 and the transfer closed escrow in 1996. ~~This occurred in 1995.~~ The KCWA then transferred ownership to a new agency, the KWBA. The KWBA built a groundwater storage facility, the Kern Water Bank~~, to take advantage of a provision of the Monterey Amendment that enables SWP contractors to store water outside their service areas~~. The primary reason for KWBA’s acquisition of the KWB Lands and construction of a Kern Water Bank was to ensure a more reliable water supply for its member entities: storage of water during times of surplus in service area for later recovery during times of shortage and use in service area (see primary water conservation objective of HCP/NCCP).
>
> Between 1996 and 2003, as part of the Kern Water Bank, approximately 4,080~~1,665~~ acres of land were converted to shallow percolation ponds, a six-mile long earthen canal, the Kern Water Bank Canal, and several wells and pump stations were built.

Page 7.13-21, the first paragraph under the heading, “1996 — 2003,” the last sentence is revised to read:

> The KWBA also constructed the Kern Water Bank (KWB) Canal, ~~and~~ a six-mile long earthen canal extending from the Kern River to the California Aqueduct.

Page 7.15-8, the first paragraph is revised to read:

> KWBA also constructed the Kern Water Bank Canal, ~~and~~ a six-mile long earthen canal extending from the Kern River to the California Aqueduct.

Page 7.15-10, third paragraph, the second sentence is revised to read:

> Table 6-28~~7~~ in Chapter 6 shows MWDSC's expected future use of flexible storage in Castaic Lake and Lake Perris.

Page 7.15-10, end of the fourth paragraph is revised to read:

> Although this worst-case condition could occur, it would be unlikely (see discussion in 6.4.3~~.1~~ in Chapter 6).

Page 7.16-6, last paragraph, the first sentence is revised to read:

> The post-processed power results were only ~~ran~~ run for the 2020 Level-of-Development. The 2020 conditions show a total long-term net load increase of only ~~1.6~~ 2.02 percent (see Future Impacts section).

## Chapter 8 Growth Inducing Impacts

Page 8-6, first paragraph, the second sentence is revised to read:

> There is no precise way to determine whether an increase in water supply, an expansion of water delivery systems, or a transfer of water between areas directly or indirectly induces growth. Furthermore, population growth is influenced by a host of complex factors. At the statewide and regional levels, growth is principally the result of the natural increase in the population – the excess of births over deaths.

Page 8-6, third paragraph, the first sentence is revised to read:

> In the analysis, a number of conservative assumptions are made, which result in over-estimating the potential ~~increase in~~ local population growth ~~associated with the~~ potentially attributable to the proposed project.

Page 8-6, the fourth paragraph is revised to read:

> The provisions of the Monterey Amendment that could affect deliveries of SWP water to M&I contractors include the Table A transfers and retirements, the water allocation procedures and the water supply management practices. The Table A transfers and retirements and water allocation procedures could ~~have~~ result in a substantial ~~effect on~~ net increase in average annual deliveries, as well a lesser net increase in dry year deliveries, as described in Chapter 6. The water supply management practices, through more flexible use of SWP facilities and out of service area storage, could increase effective deliveries to contractors in dry periods but would not have much effect on annual average deliveries. The out-of-service-area storage provision could provide supplies with sufficient magnitude and reliability to allow an M&I contractor to rely on the supply to bridge drought periods (supplemental drought supply).

Page 8-8, the first paragraph is revised to read:

~~Although use of the water supply management practices could increase the reliability of M&I contractors' water supplies,~~ These water supply management practices together could provide some additional reliability through more flexible use of SWP facilities and out-of-service-area storage, but there would be little effect on average annual deliveries of SWP water for reasons described in Chapter 6. ~~It was assumed that land use planning agencies in the service areas of M&I contractors that received an increase in critical year SWP deliveries but did not receive an increase in their average SWP supplies would be unlikely to approve new development on the basis of increased dry year deliveries alone.~~ Only the out-of-service-area storage provision could provide supplies with sufficient magnitude and reliability to allow an M&I contractor to rely on the supply to bridge drought periods and, subject to local policy considerations, rely on withdrawals from storage as part of a supply that could support growth.

To the extent that among the various factors affecting growth, water supply was a constraint to growth, and that an M&I contractor's average annual supply was not a constraint to growth but its dry-year supply was, then an increase in that contractor's dry-year supply could potentially result in an increase in growth. Stated another way, if water supply was a constraint to growth, any dry-year supply increase could result in added growth if an agency's dry year water supply, rather than its average annual supply, was a constraint to growth.

Pages 8-8 and 8-9, the text under the subsection "Methods for Estimating Population Growth" is revised to read:

**Method for Estimating Population Growth**

Those M&I contractors that were recipients of permanent transfers of Table A amounts would receive increased average annual Table A deliveries as a result of the proposed project. To determine the potential for an increase in water supply to support additional population, per capita water consumption factors were used to estimate population growth. ~~As m~~Most of the SWP's urban customers are located either in Southern California (South Coast Hydrologic Region) or the San Francisco Bay Area (San Francisco Bay Hydrological Region). ~~and all of the~~ The recipients of Table A transfers and supplies banked outside of the service area are located in these two ~~regions~~ hydrologic regions and in the South Lahontan and Colorado River Hydrologic Regions; therefore, water consumption factors for these regions were used in the calculations. Gallons per capita per day (GPCPD)[4] information ~~was~~ were obtained from *The California Water Plan Update* (Bulletin 160-05) and Department staff. As described in Bulletin 160-05, current levels of water use were prepared and presented from recent actual years, as opposed to including statistical adjustments as was done in previous Bulletin 160 publications. Three years were selected to show the range of actual water supplies and use based on a range of hydrologic conditions:

- 1998, which was a wet water-supply year statewide;
- 2000, an overall average or normal water year; and
- 2001, a below average or dry year for most of the state.

Bulletin 160-05 considered three "future demand scenarios" for 2030 (the future year established for estimating future water demands and the delivery capabilities of existing and planned facilities). The three demand scenarios are:

- Current Trends – ~~Recent trends continue for~~ Water demand is based on current population growth and development patterns, agricultural and industrial production, environmental water dedication, and conservation trends.
- Less Resource Intensive – ~~Recent~~ Water demand is based on current trends for population growth and development patterns, with a growing economy (higher agricultural and industrial production), and more environmentally protective policies (more environmental water dedication and higher conservation) compared to ~~current trends~~ the Current Trends demand scenario and the More Resource Intensive demand scenario.
- More Resource Intensive – Water demand is based on a growing economy with ~~H~~higher population growth and development patterns, higher agricultural and industrial production~~, and no additional environmental water dedication, and less conservation compared to current trends~~. Environmentally protective policies (environmental water dedication and conservation) are not the first priority for water management decisions and water use is less efficient compared to the Current Trends and Less Resource Intensive demand scenarios.

For each of these demand scenarios, Bulletin 160-05 included urban water use and population projections for 2030, by hydrologic regions throughout the state. Table 8-2 presents this data for the South Coast, ~~and~~ San Francisco Bay, South Lahontan and Colorado River Hydrological Regions, and the GPCPD rates calculated from this data. In Tables 8-3A and B, the GPCPD rates for each demand scenario were used to estimate the population that could be supported by the additional average annual SWP deliveries and supplemental drought supply to certain M&I contractors. The future year used in this EIR is 2020, compared to the 2030 future year used by the Department for Bulletin 160-05. Therefore, the population calculations would represent population estimates for 2030. The actual population in 2020 would be expected to be something less.

**TABLE 8-2**

**GPCPD FOR THE SOUTH COAST AND SAN FRANCISCO BAY BY HYDROLOGIC UNITS REGION**

| Year | Hydrologic ~~Unit~~ Region | Total Urban Water Use (TAF) | Population | GPCPD |
|---|---|---|---|---|
| 1998 | San Francisco Bay | 991 | 5,937,000 | 149 |
| 1998 | South Coast | 3,621 | 17,555,000 | 184 |
| 1998 | South Lahontan | 211 | 698,375 | 270 |
| 1998 | Colorado River | 700 | 573,000 | 1,091 |
| 2000 | San Francisco Bay | 1,069 | ~~6,106,000~~6,109,000 | 156 |
| 2000 | South Coast | 4,249 | ~~18,223,000~~18,236,000 | 208 |
| 2000 | South Lahontan | 269 | 721,490 | 333 |
| 2000 | Colorado River | 684 | 607,000 | 1,005 |
| 2001 | San Francisco Bay | 1,110 | 6,224,000 | 159 |
| 2001 | South Coast | 3,990 | 18,611,000 | 191 |
| 2001 | South Lahontan | 237 | 738,645 | 286 |
| 2001 | Colorado River | 607 | 628,000 | 863 |

**TABLE 8-2**

**GPCPD FOR THE SOUTH COAST AND SAN FRANCISCO BAY BY HYDROLOGIC UNITS REGION**

| Year | Hydrologic ~~Unit~~ Region | Total Urban Water Use (TAF) | Population | GPCPD |
|---|---|---|---|---|
| **Current Trend** | | | | |
| 2030 | San Francisco Bay | 1,267 | 7,857,000 | 144 |
| 2030 | South Coast | 5,122 | 23,827,000 | 192 |
| 2030 | South Lahontan | 431 | 1,266,375 | 304 |
| 2030 | Colorado River | 1,079 | 1,166,500 | 826 |
| **Less Resource Intensive** | | | | |
| 2030 | San Francisco Bay | 1,115 | 7,857,000 | 127 |
| 2030 | South Coast | 4,340 | 23,827,000 | 163 |
| 2030 | South Lahontan | 345 | 1,266,375 | 243 |
| 2030 | Colorado River | 952 | 1,166,500 | 729 |
| **More Resource Intensive** | | | | |
| 2030 | San Francisco Bay | 1,467 | ~~7,857,000~~7,788,500 | ~~144~~ 168 |
| 2030 | South Coast | 6,259 | ~~23,827,000~~26,929,800 | ~~188~~ 207 |
| 2030 | South Lahontan | 575 | 1,559,000 | 329 |
| 2030 | Colorado River | 1,397 | 1,416,800 | 880 |

Note: GPCD: (Total Urban Water Use (TAF)]*325,851*1,000/([population]*365)
Source: California Department of Water Resources, California Water Plan Update, Bulletin 160-05 and personal communication with Scott Hayes and Marla Hambright, Department of Water Resources, October 9, 2008 and April 17, 2009.

Pages 8-9 through 8-12, the text under Subsection 8.2.2, is revised as follows, and Tables 8B and 8C are added. Note that Tables 8B and 8C are brand new tables for Chapter 8 but for readability they are not shown in underline format.

### 8.2.2 Results of the Analysis

The potential local increase in population that could be supported based on estimated increased deliveries to M&I contractors attributable to the proposed project was determined by analyzing supply increases under two conditions: based on average annual supply increases; and based on dry year supply increases, including supplies withdrawn from out-of-service-area storage.

It is important to note that the results of these two analyses are not additive. For a particular M&I contractor, if water supplies under average conditions are a constraint to growth but supplies under dry year conditions are not, then the maximum potential growth inducement for that contractor would be based on its increase in average annual supplies If instead, a contractor's supplies under dry year conditions are a constraint to growth but supplies under average conditions are not, then maximum potential growth inducement for that contractor would be based on its increase in dry year supplies. If a contractor's supplies under both average conditions and dry year conditions are a constraint to growth, then the maximum potential growth that contractor's increased supplies could support would be based on whichever condition resulted in the smaller increase in supply. Since the Department does not know whether water supply is a constraint to growth for any of these M&I contractors, and if so whether it is the supply under average or dry year conditions or both that is the constraint, for the purposes in this EIR, it is assumed that the maximum potential growth-inducing impact attributable to the proposed project is based on whichever condition result in the larger population estimate.

Average annual SWP deliveries were estimated for the proposed project and for the projected baseline condition in 2020 (see Tables 6-22 and 6-25 in Chapter 6, Effects of Proposed Project on SWP and SWP Contractor Operations). Based both on Table A deliveries only and on Table A and Article 21 water combined, eight M&I contractors would receive increased average annual deliveries of SWP water under the proposed project in 2020 when compared to the baseline. The eight M&I contractors that would receive ~~increased~~ an increase in average annual ~~Table A~~ deliveries include Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Desert WA, Mojave WA, and Palmdale W~~A~~D. ~~Considering deliveries of Table A and Article 21 water combined would result in seven M&I contractors receiving increased average annual deliveries of SWP water under the proposed project in 2020 when compared to the baseline.~~ M&I contractors that would receive increased average annual deliveries of Table A and Article 21 water combined include Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Mojave WA, Desert WA, and Palmdale WA. Increased average annual deliveries to each of these M&I contractors are shown in Table 8-3A together with the estimated population that the additional water could support under each of the future demand scenarios. As shown in Table 8-3A, the total increase in average annual deliveries to the eight M&I contractors of Table A water is 90,900 AFY ~~per year~~, and to the ~~seven~~ eight M&I contractors of Table A and Article 21 water combined is ~~91,400~~ 94,700 AFY ~~per year~~. This increase in water supply could support a total estimated maximum population ~~of new residents~~ in the service areas of the affected water agencies under the current trend~~s~~ demand scenario of ~~470,241~~ 406,200 based on Table A deliveries alone and up to ~~484,499~~ 424,935 based on both Table A and Article 21 deliveries. Under the less resource intensive demand scenario, the increased water supply could support an estimated maximum population of ~~545,517~~ 474,045 ~~new residents~~ based on Table A deliveries and up to ~~561,684~~ 495,451 based on both Table A and Article 21 deliveries. Under the more resource intensive demand scenario, the increased water supply could support an estimated maximum population of ~~392,808~~ 363,256 ~~new residents~~ based on Table A deliveries alone, and up to ~~405,103~~ 379,638 based on both Table A and Article 21 deliveries.

Average critically dry year SWP deliveries were estimated for the proposed project and for the projected baseline condition in 2020 (see Table 6-24 in Chapter 6). As shown in Table 8-3B, dry year supplies, including supplies withdrawn from out-of-area storage over a 5-year dry period could also support population in Napa County FC&WCD, Solano County WA, Alameda County FC&WCD, Zone 7, Alameda County WD, Santa Clara Valley WD, Castaic Lake WA, Mojave WA, Palmdale WD and Coachella Valley WD.

Seven of the nine M&I contractors that were recipients of Table A transfers had an increase in both critically dry year water supplies and average annual water supplies (Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Mojave WA, and Palmdale WD). The estimates for these contractors of the potential population that could be supported shown in Table 8-3B based on critically dry year water supplies are less than the population estimates based on average annual water supplies as presented in Table 8-3A. Therefore, for these seven contractors, the maximum potential population that could be supported is assumed to occur under average annual conditions (see Table 8-3A).

**TABLE 8-3A**

**POTENTIAL POPULATION ~~INCREASE~~ SUPPORTED BY ~~DUE TO~~ ESTIMATED AVERAGE ANNUAL DELIVERIES IN ~~2020~~2030**

| | Additional Deliveries (AFY)[1] | | | Potential ~~Additional~~ Population[2] | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Based on Table A Deliveries | | | Based on Table A and Article 21 Deliveries | | |
| **SWP M&I contractors** | **Table A Deliveries** | **Article 21 Deliveries** | **Total** | **Current Trends** | **Less Resource Intensive** | **More Resource Intensive** | **Current Trends** | **Less Resource Intensive** | **More Resource Intensive** |
| Napa County FC&WCD | 2,400 | 800 | 3,200 | 14,879 | 16,871 | ~~12,830~~ 12,753 | 19,839 | 22,494 | ~~17,106~~ 17,005 |
| Solano County WA | 3,200 | 800 | 4,000 | 19,839 | 22,494 | ~~17,106~~ 17,005 | 24,798 | 28,118 | ~~21,383~~ 21,256 |
| Alameda County FC&WCD, Zone 7 | 25,100 | 700 | 25,800 | 155,610 | 176,440 | ~~134,179~~ 133,380 | 159,950 | 181,360 | ~~137,921~~ 137,100 |
| Castaic Lake WA | 31,700 | 800 | 32,500 | 147,396 | 173,619 | ~~120,425~~ 136,715 | 151,115 | 178,001 | ~~123,464~~ 140,165 |
| Coachella Valley WD | 6,700 | 700 | 7,400 | ~~31,153~~ 7,241 | ~~36,696~~ 8,205 | ~~25,453~~ 6,797 | ~~34,408~~ 7,998 | ~~40,529~~ 9,062 | ~~28,112~~ 7,507 |
| Desert WA | 1,500 | 0 | 1,500 | ~~6,975~~ 1,621 | ~~8,215~~ 1,837 | ~~5,698~~ 1,522 | ~~0~~[3] 1,621 | ~~0~~[3] 1,837 | ~~0~~[3] 1,522 |
| Mojave WA | 17,800 | 0 | 17,800 | ~~82,765~~ 52,272 | ~~97,490~~ 65,394 | ~~67,620~~ 48,300 | ~~82,765~~ 52,272 | ~~97,490~~ 65,394 | ~~67,620~~ 48,300 |
| Palmdale WD | 2,500 | 0 | 2,500 | ~~11,624~~7,342 | ~~13,692~~ 9,185 | ~~9,497~~ 6,784 | ~~11,624~~7,342 | ~~13,692~~ 9,185 | ~~9,497~~ 6,784 |
| **Total** | **90,900** | **3,800** | **94,700** | **~~470,241~~ 406,200** | **~~545,517~~ 474,045** | **~~392,808~~ 363,256** | **~~484,499~~ 424,935** | **~~561,68~~ 495,451** | **~~405,103~~ 379,638** |

Notes:
1. Average annual increases in deliveries to M&I contractors resulting from the proposed project, as compared to the baseline scenario, from Tables 6-22 and 6-25.
2. Based on 2030 GPCPD rates included in Table 8-2. ~~for the South Coast and the San Francisco Bay Hydrologic Regions, per the California Water Plan Update, Bulletin 160-05.~~
3. ~~Assumed no population growth associated with negative total additional deliveries.~~

**TABLE 8-3B**

**POTENTIAL POPULATION IN 2030 SUPPORTED BY ESTIMATED DRY YEAR DELIVERIES**

| Contractor | Additional Deliveries | Potential Population | | |
|---|---|---|---|---|
| | Net Increase in Average Critically Dry Year Total Deliveries, AF/Y | Current Trends | Less Resource Intensive | More Resource Intensive |
| Napa County FC&WCD | 500 | 3,100 | 3,515 | 2,657 |
| Solano County WA | 500 | 3,100 | 3,515 | 2,657 |
| Alameda County FC&WCD, Zone 7 | 22,620 | 140,235 | 159,007 | 120,201 |
| Alameda County WD | 11,260 | 69,808 | 79,152 | 59,835 |
| Santa Clara Valley WD | 25,590 | 158,648 | 179,884 | 135,984 |
| Castaic Lake WA | 12,100 | 56,261 | 66,271 | 52,184 |
| Mojave WA | 6,500 | 19,088 | 23,880 | 17,638 |
| Palmdale WD | 700 | 2,056 | 2,572 | 1,899 |
| Coachella Valley WD | 1,300 | 1,405 | 1,592 | 1,319 |
| **Total** | **81,070** | **453,700** | **519,387** | **394,375** |

In addition to these contractors, two M&I contractors that stored water outside their service areas had a net increase in critically dry year supplies because of their stored water (Alameda County WD and Santa Clara Valley WD). These two contractors were not the recipients of any Table A transfers, had a decrease in average annual supplies due to the change in allocation procedures, and therefore, are not included in the analysis based on average supply conditions. For these two M&I contractors, the maximum potential population that could be supported would occur under dry year conditions (see Table 8-3B).

As noted above, the Department does not know whether water supply is a constraint to growth for any of these M&I contractors, and if so whether it is the supply under average or dry year conditions or both that is the constraint. For purposes of this EIR, the Department assumes the maximum potential growth-inducing impact attributable to the proposed project for a particular contractor is based on whichever supply condition results in the larger population estimate. Therefore, the population estimates presented in Table 8-3C are based on: M&I contractors with an increase in average annual supplies as a result of the proposed project (Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Desert WA, Mojave WA, and Palmdale WD); and contractors with a decrease in average annual supplies as a result of the proposed project but an increase in critically dry year supplies (Alameda County WD and Santa Clara Valley WD).

As shown in Table 8-3C, the total estimated maximum population in the service areas of the affected water agencies under the current trend demand scenario is 634,656 based on average annual Table A deliveries and dry year supplies and up to 653,391 based on average annual deliveries of both Table A and Article 21 water and dry year supplies. Under the less resource intensive demand scenario, the increased water supply could support an estimated maximum population of 733,081 based on average annual Table A deliveries and dry year supplies, and up to 754,487 based on average annual deliveries of both Table A and Article 21 water and dry year supplies. Under the more resource intensive demand scenario, the increased water supply could support an estimated maximum population of 559,075 based on average annual Table A deliveries alone and

dry year supplies, and up to 575,457 based on average annual deliveries of both Table A and Article 21 deliveries and dry year supplies.

**TABLE 8-3C**

**POTENTIAL TOTAL POPULATION SUPPORTED IN 2030**

| | Table A Deliveries[1] | Supplemental Drought Supplies[2] | Total | Table A and Article 21 Deliveries[1] | Supplemental Drought Supplies[2] | Total |
|---|---|---|---|---|---|---|
| **Current Trends** | 406,200 | 228,456 | **634,656** | 424,935 | 228,456 | **653,391** |
| **Less Resource Intensive** | 474,045 | 259,036 | **733,081** | 495,451 | 259,036 | **754,487** |
| **More Resource Intensive** | 363,256 | 195,819 | **559,075** | 379,638 | 195,819 | **575,457** |

Notes:
1. M&I contractors with an increase in average annual supplies as a result of the proposed project (Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Desert WA, Mojave WA, and Palmdale WD) as presented in Table 8-3A.
2. M&I contractors with a decrease in average annual supplies as a result of the proposed project but an increase in critically dry year supplies (Alameda County WD and Santa Clara Valley WD) as presented in Table 8-3B.

Therefore, under any and all of the future demand scenarios, implementation of the proposed project could support additional population ~~growth~~ in some areas. As mentioned above, the GPCPD are based on 2030; therefore, it is reasonable to assume that the actual population ~~growth~~ in 2020 for these areas would be less. For the purpose of this growth-inducing analysis, it is assumed that the additional average annual deliveries and dry year supplies through out-of-service-area groundwater storage presented in Table 8-3C would go to support new population. The effects of this increase in population are discussed below.

### Elimination of Obstacles to Growth

Increased average annual deliveries of SWP water ~~and~~ or dry year supplies to affected service areas could result in the construction of additional local infrastructure to deliver the water supplies. This could remove an obstacle to growth.

### Economic Effects

At the local level, the increased population that could result from increased average annual deliveries of SWP water and supplemental drought supplies could stimulate increased economic activity as a result of an increased demand for goods and services necessary to support the population growth. The need for additional goods and services would induce increased employment. An increase in future employees would require the development of physical space. It is the characteristics of this physical space and its specific location that would determine the type and magnitude of associated environmental impacts of this economic activity.

### Environmental Impacts

Because there could be an increase in population in some areas, currently undeveloped land could be converted to urban uses or current urbanization could be intensified, which could have secondary (or indirect) environmental effects such as impacts on special-status species and their habitat, changes in storm water quality and quantity due to increased impervious surface cover, reduction in air quality, increased traffic and noise

levels, reduction in public service and utility levels of service, etc. Some of the EIRs prepared by recipients of Table A transfers identified similar secondary impacts in their service areas (see Table 8-1).

The specific environmental effects associated with increased population are too speculative to predict or evaluate since the exact location and manner of potential future development within the ~~eight~~ 10 M&I contractors' services areas cannot be determined. However, this Program EIR provides an independent but generalized analysis of secondary impacts based on the known environmental effects of urban development in California. This analysis is presented below. The project-specific environmental impacts of implementing the proposed project are evaluated in Chapter 7 of this EIR.

The conversion of land to urban uses could result in a variety of different environmental impacts. Land that would be converted to urban uses along transportation routes and on the fringes of existing urban and suburban areas is typically undeveloped or used for agriculture. Conversion to urban uses of agricultural lands removes this land permanently from being available for agricultural production. In addition, conversion of agricultural or undeveloped lands eliminates most of the wildlife habitat value of these lands. Landform and drainage patterns could be altered, with natural drainage channels largely replaced by engineered storm water systems. Impermeable roofs, parking lots, and roadways could replace permeable surfaces with a consequent increase in storm water runoff and a decrease in groundwater recharge. Various substances associated with homes, yards, and vehicle use (paints, pesticides, plasticizers, oil and grease, brake dust, pet wastes, etc) could be deposited on urban surfaces and conveyed to natural waterways. The introduction of people and vehicles into previously unpopulated or lightly populated areas could increase traffic, noise levels, air pollutant emissions, the generation of sanitary wastewater and solid waste, and the demand for local services.

Pages 8-12 to 8-13, under Subsection 8.3.1, is revised to read:

### 8.3.1 Use of Additional SWP Water by M&I Contractors

The EIRs prepared on the transfers of Table A amount from KCWA to the M&I contractors provide an indication of the M&I contractors' intentions. Five of the EIRs indicate that the M&I contractors intend to use the additional SWP water to support growth but several note that some of the water would be used for a different purpose. Different purposes include the use of the additional water to recharge over-drafted groundwater basins, to replace more expensive water supplies and to improve system reliability by storing the extra SWP water for use in years when water availability from the SWP or other water sources is limited.

Groundwater basins are in an over-drafted condition in the service areas of two of the municipal water agencies that would receive additional SWP water (Mojave WA and Palmdale WD). The EIR prepared on the transfer of Table A amount from a KCWA member agency, Berrenda Mesa WD, to Mojave WA indicates that Mojave WA intends to use some of its additional SWP supply for groundwater replenishment. The EIR prepared on the transfer of Table A amount from a KCWA member agency, Belridge WSD, to Palmdale WD indicates that Palmdale WD intends to use some of its additional SWP supply to reduce reliance on groundwater. Thus, only a portion of the additional SWP water received by Mojave WA and Palmdale WD would be used to support growth.

It is unlikely that any of the ~~eight~~ 10 M&I contractors receiving increased average annual SWP deliveries and/or having dry year supplies would use the additional SWP supply to replace more expensive water from another source. For these ~~eight~~ M&I contractors, SWP water is probably their most expensive current major source of water. None of the EIRs on the Table A transfers indicate that M&I contractors intend to use their additional SWP water for this purpose.

~~Any of the eight M&I contractors could allocate some or all of the additional SWP water supply to improving reliability rather than supporting additional growth. One way of improving reliability is to store SWP water within or outside a contractor's service area for later use in dry years. As noted above, Mojave WA and Palmdale WD intend to use some of their additional SWP supply to replenish groundwater basins, which would have the effect of increasing the reliability of their water supply systems. Two other M&I contractors, Castaic Lake WA and Alameda County FC&WCD Zone 7, stored SWP water outside their service areas between 1994 and 2003. This suggests that they are using part of the additional SWP water to improve the reliability of their water systems.~~

One way for SWP contractors ~~Another way~~ to improve reliability is to increase system reliability by increasing use of SWP water when it is available and using other sources when SWP water is in short supply. The EIR on the Table A transfer from the Belridge WD to Solano County WA indicates that Solano County WA intends to use a portion of its additional SWP water to improve its system reliability in this way. The Negative Declaration on the Table A transfer from the Belridge WD to Napa County FC&WCD indicates that Napa County FC&WCD would use all of its additional SWP supply to improve system reliability.

Some of the ~~eight~~ M&I contractors receiving additional SWP water intend to use part of it to support growth and the rest for another purpose, primarily improving system reliability. It is not clear how much of the additional SWP water would be used to support growth and how much would be used for other purposes.

If those SWP contractors with out-of-service-area groundwater storage assumed that these banked supplies would be withdrawn over a longer period than five years, the dry year deliveries would be less. If these contractors do not assume using the banked supplies as supporting their ability to serve, but instead treat it as an emergency reserve, there would be no additional population beyond that shown in DEIR Table 8-3A.

These and other SWP contractors could use additional out-of-area storage facilities in the future to support increased population, should they so choose. However, there would have to be sufficient supplies available to them to bank to support that increase. Any projection by the Department of which M&I contractors might implement such banking programs and use that supply to support population is speculative and is not evaluated in this response. Any such new program would require a site specific environmental analysis.

Page 8-14, the first paragraph under Subsection 8.3.3 is revised to read:

**8.3.3 Local Decision-Making on Land Use Planning**

It is unclear whether in certain areas increased average annual SWP deliveries or dry year supplies eliminate an obstacle to growth. The proposed project would not improve infrastructure capacity or remove a regulatory constraint that had previously limited

growth in the municipal contractor's service areas. It is possible that uncertainty in water supplies could, in and of itself, be considered an obstacle to growth because planners might have limited growth (urbanization) based on water supply availability. For instance, the 2004 EIR on the Table A transfer to Castaic Lake WA states that the transfer would eliminate an obstacle to growth.

Pages 8-14, the last paragraph is revised to read:

The additional water supply that would be made available by the Monterey Amendment through average annual Table A deliveries and dry year supplies to ~~eight~~ 10 M&I contractors could support a maximum ~~increase in~~ population of approximately ~~392,808~~ 559,075 to ~~561,684~~ 733,081 (depending on the future scenario) in their service areas. Average annual Table A and Article 21 deliveries and dry year supplies to ~~seven~~ 10 M&I contractors could support a maximum ~~increase in~~ population of approximately ~~405,104~~ 575,457 to ~~561,685~~ 754,487. This analysis concludes that some of this water could support additional growth. This conclusion is similar to that found in environmental documents prepared by the sellers and buyers of Table A water. It is unlikely that all of such population growth would occur because some of the water would be used for other purposes such as improving the reliability of water supplies, or that any growth that did occur could be attributed to the Monterey Amendment because it is likely that in some cases alternative sources would have been used to support this growth in the absence of SWP supplies.

Page 8-15, the first and second paragraphs are revised to read:

As compared to baseline conditions, the potential exists for the proposed project to have an adverse impact as a result of growth-inducement. Increases in population can result in new development that causes the adverse impacts to the environment described in this Chapter. This study concludes that some of the impacts are potentially significant and some cannot be avoided. This conclusion is similar to conclusions found in some of the environmental documents prepared by sellers and buyers of Table A water. The types of impacts and potential mitigation measures are discussed in Section 8.2 and are common to urban development projects.

~~Neither the Department nor local water supply agencies make local decisions regarding growth and where it will occur.~~ Cities and counties in the contractor service areas affected by the increased population are responsible for making fundamental decisions about land use and growth and considering the environmental effects of their growth and land use planning decisions. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. Where appropriate, they must consider mitigations measures, alternatives and overriding considerations.

Mitigation Measures

The ability to make changes or alternations that could potentially avoid or substantially lessen some of this potentially significant environmental effect is within the responsibility and jurisdiction of other public agencies, primarily cities and counties and such changes have been adopted by such other agencies or can and should be adopted by such other agencies. Neither the Department nor most local water supply agencies have authority to make local decisions regarding growth and where it will occur. The Department does not have the ability or the authority to identify and monitor or regulate land use decisions made by local government or to establish general rules that would govern these

decisions. These decisions are within the authority and jurisdiction and properly deferred to local decision-makers, such as cities and counties, where specific projects can be more fully described and are ready for detailed analysis and appropriate mitigation measures. In addition to measures imposed by local decision-makers, federal, State and local governments implement numerous mitigation strategies for specific project impacts such as Best Management Practices (BMPs) to minimize water quality and air emission impacts. The Department also issues the SWP Delivery Reliability Report every two years which informs local decision-makers of water supply limitations of SWP water.

## Chapter 10 Other CEQA Considerations

Page 10.1-21, the first full paragraph is revised to read:

… ~~No significance determination was made with respect to cumulative flow changes in the Sacramento and Feather rivers or for the flow changes produced by the proposed project.~~ Because the project's contribution to cumulative flows would not be measurable when compared to total cumulative flows, ~~However,~~ the proposed project's contribution to flow changes would not be cumulatively considerable.

Page 10-1-21, the fourth paragraph is revised to read:

… ~~No significance determination was made with respect to cumulative flow changes in the Delta or for the flow changes in the Delta produced by the proposed project.~~ Because the project's contribution to cumulative flows would not be measurable when compared to total cumulative flow changes in the Delta, ~~However,~~ the proposed project's contribution to flow in the Delta ~~changes~~ would not be cumulatively considerable.

## Chapter 11 Alternatives

Page 11-3, first paragraph, the third sentence is revised to read:

Although there is doubt about the institutional and legal feasibility of Alternative 5, it was decided that it should be analyzed because it would lessen the adverse environmental impacts of the Monterey Amendment.

Page 11-31, the following paragraph is added at the end of Section 11.6:

Even though this pumping would have been in compliance with then-current and future more stringent regulatory requirements, the FEIR reflects a potentially significant impact to Delta fisheries in DEIR Table 11-23. The Department would have provided appropriate mitigation for any incidental take of winter-run salmon. Regardless, the Department could only move water to a State-owned KFE storage project as allowed under its permits, that is, the requirements of the D-1641 and other regulatory constraints.

Page 11-32, third paragraph, the last sentence is revised to read:

Construction of a state-owned bank would have similar impacts to those that occurred when the Kern Water Bank Authority constructed its groundwater banking facilities on the property, except that increased pumping from the Delta could result in a potentially significant impact on Delta fisheries.

Page 11-32, the last paragraph is revised to read:

> NPA2 would have the same effects as the proposed project for 1996 through 2003. In the future, NPA2 would have lesser effects than the proposed project on Delta fisheries ~~and in the San Joaquin Valley Portion of Kern County~~. It would also have less environmental effects than the proposed project in the San Joaquin Valley portion of Kern County with the exception the 490 acres of land in the KFE. Under the proposed project this land could not be developed but it could be developed under NPA2. It would have no effects in the future on environmental resources at Castaic Lake and Lake Perris and in Plumas County. Alternative 5 would avoid all of the adverse environmental impacts of the proposed project except those in Plumas County.

Page 11-33, Table 11-23 is revised as follows:

**TABLE 11-23**

**ENVIRONMENTAL IMPACTS OF ALTERNATIVES**

| | Proposed Project | NPA1 | NPA2 | CNPA3/CNPA4 | Alternative 5 |
|---|---|---|---|---|---|
| Impacts of Delta fisheries | Increased Delta pumping could adversely affect Delta fisheries | ~~No Impact.~~ Increased Delta pumping could adversely affect Delta fisheries | 1996-2003: same as proposed project. Future: similar to but less than proposed project | ~~No Impact.~~ Increased Delta pumping could adversely affect Delta fisheries | No Impact |
| Impacts on environmental resources at Lake Perris and Castaic Lake | Extreme drawdown of reservoirs at times could harm fish, wildlife, culture resources, etc. | No Impact | 1996-2003: same as proposed project. Future: No Impact | No Impact | No Impact |
| Impacts on environmental resources in San Joaquin Valley portion of Kern County | Impacts associated with construction of percolation ponds and conversion of annual to permanent crops | Similar to but less than proposed project | 1996-2003: same as proposed project. Future: similar to but less than proposed project | Similar to but less than proposed project | No Impact |
| Impacts on environmental resources in Plumas County | Impacts associated with stream restoration facilities | No Impact | No Impact | No Impact | Same as proposed project |

## Chapter 12 Climate Change

Page 12-1, fourth paragraph, the first sentence is revised to read:

> Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide ($CO_2$), and nitrous oxide ($N_2O$), plus the three fluorinated gases hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride ($SF_6$)~~methane ($CH_4$), ozone ($O_3$), water vapor, nitrous oxide, and chlorofluorocarbons (CFCs)~~.

Page 12-2, the last sentence is revised to read:

> In order to achieve the climate change emission targets, in June 2005, the Secretary formed the Climate Action Team, which is comprised of administrators from numerous State agencies, including the Department.

Page 12-3, Section 12.2.3, second paragraph, beginning on the fifth line is revised to read:

> ~~By January 2008,~~ In November 2007, after extensive public review and comment the CARB ~~will~~ determined the statewide GHG emission level in 1990 to be 427 million metric tons of $CO_2$ equivalent ($CO_2e$) emissions through review of the best available scientific, technological, and economic information, as well as provid~~e~~ing opportunities for public review and comment.

Page 12-14, Section 12.9, the first paragraph is revised to read:

> In May 2009, the California Climate Action Registry (CCAR) completed its final verification of the Department's 2007 Greenhouse Gas Emissions (GHG) Inventory Report. Consistent with the accounting methodologies set forth in the CCAR reporting protocols, in 2007 the State Water Project (SWP) power purchase portfolio emissions equaled 3.22 million metric tons of $CO_2e$ emissions. In June 2009, the Department filed its 2008 GHG Inventory Report, which will in turn be independently verified by an independent verifier, and ultimately reviewed and published by the CCAR. For 2008 the State Water Project (SWP) power purchase portfolio unverified emissions equal 2.69 million metric tons of $CO_2e$ emissions. The Department's expects that its verified 2008 GHG Emissions Inventory Report will be published in January 2010. Further, future power use trends could be partly offset if SWP deliveries decline, requiring less purchased power to operate the SWP, although clean hydropower generation at Oroville and other SWP facilities would also decline somewhat under a lower delivery scenario.

Page 12-14, Section 12.9, third paragraph, the fifth line is deleted:

> ~~However, no standards have yet been adopted quantifying 1990 emission targets.~~

Page 12-15, the first full paragraph is revised to read:

> Emitting $CO_2e$ into the atmosphere is not itself an adverse environmental affect. It is the increased concentration of $CO_2e$ in the atmosphere resulting in global climate change and the associated consequences of climate change that results in adverse environmental affects (e.g., sea level rise, loss of snowpack, severe weather events). Although it is possible to generally estimate a project's incremental contribution of $CO_2e$ into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on

the environment. Given the complex interactions between various global and regional-scale physical, chemical, atmospheric, terrestrial, and aquatic systems that result in the physical expressions of global climate change, it is impossible to discern whether the presence or absence of $CO_2$e emitted by the proposed project would result in any altered conditions.

Page 12-15, second full paragraph, the second sentence is revised to read:

The SWP's total GHG emissions are currently estimated at 0.6 percent of statewide emissions. As described in Section 7.16, the proposed project has the potential to ~~will~~ increase SWP ~~power use~~ electricity consumption by approximately 2~~.02~~ percent ~~over existing power use~~from the baseline scenario; thus an increase of approximately 2~~.02~~ percent in the SWP's GHG emissions from the baseline is possible. In 2008, regulatory, environmental, and hydrologic conditions, including low carryover storage levels in California's major reservoirs, drought conditions, and water delivery restrictions from the Delta have reduced the energy resources associated with the SWP. Consequently $CO_2$ emissions for SWP bilateral contracts and electricity imports decreased in 2008 by 27 percent. In 2007 the SWP pumpload equaled 9,800 gigawatt hours (GWH). By 2008, the SWP pumpload decreased to 6,043 GWH. Applying the data from 2007 and 2008 to provide a range in estimated $CO_2$e emissions, a 2 percent increase in pumpload will result in an estimated 40 to 55 thousand metric tons.

Page 12-15, the following text is added after the last paragraph:

In May 2009, the California Climate Action Registry (CCAR) completed its final verification of the Department's 2007 Greenhouse Gas Emissions (GHG) Inventory Report, and awarded the Department with the status of one of California's Climate Action Leaders. The following information is taken from this 2007 Report, the Draft (e.g., unverified) 2008 Greenhouse Gas Emissions (GHG) Inventory Report, and updates the information in the DEIR regarding the Department's commitment to reducing GHG emissions from the operations of the SWP:

**2007 Emissions Efficiency metric: 0.27 MT $CO_2$/MWh**

**Emissions Management Programs:**

The SWP's aqueducts and reservoirs were designed to provide water storage with some flexibility for the SWP to pump during hours of lower power demand and generate during hours of higher power demand. However, this flexibility is constrained by water delivery obligations and environmental and regulatory requirements.

In addition to the vital role of the SWP as California's water delivery system and the functions the Department performs in managing floods, the SWP provides benefits to the CAISO wholesale power grid, including consuming off-peak resources, and contributing clean, carbon-free hydroelectric generation during peak hours. SWP hydroelectric generation replaces energy provided by less efficient, carbon emission producing generators during peak hours.

The Department also provides grid participants with a zero-emissions energy product through a Demand Response option of dropping pump load up to 200 MW during the summer. This service effectively reduces greenhouse gas emissions by decreasing the amount of peak generation that would be necessary and likely served by inefficient, high carbon emitting resources. The SWP is California's largest individual demand response provider.

DWR develops and administers a comprehensive power resources program for the strategic timing of generation and pumping schedules, purchase of power resources and transmission services, short-term sales of energy surpluses, and studies of resources for future needs.

DWR is continually evaluating its operational strategies and energy portfolio to increase its carbon free energy resources to complement SWP's ability to deliver water using environmentally sensitive and sustainable energy resources.

The State Water Project Power Purchase Portfolio MWh and Metric Tonnes (MT) of $CO_2$ represent gross emissions levels. However, when SWP power purchases exceed the energy required to serve the SWP's pumpload, DWR sells its surplus energy. Since SWP sales transactions are not tied to specific generation resources, the SWP emissions rate of 0.27 MT $CO_2$/MWh represents MT CO2 divided by MWh from all Generation Sources. This derived rate yields an estimated 0.36 Million MT (MMT) CO2 associated with Electricity Sales. Consequently, the $CO_2$ emissions associated exclusively with the SWP pumpload requirements in 2007 equals 2.6 MMT $CO_2$.

In 2008, the SWP emissions rate increased to 0.36 MT $CO_2$/MWh, due to lower percentage of hydrogeneration resources available for use in the SWP's electricity portfolio. However, since pumploads were substantively lower in 2008, although the SWP's rate of emissions increased, overall emissions for DWR diminished. In 2008, 0.9 MMT $CO_2$ are associated with SWP wholesale electricity sales. Consequently, the $CO_2$ emissions for SWP operations in 2008 is currently estimated at 1.8 million metric tons $CO_2$.

**Emissions Reduction Projects:**

DWR operates California's SWP, the largest State-built multipurpose project in the United States. Each pump manufactured for the SWP meets the highest standards and the highest levels of efficiencies that are technically possible at the time the pumps are manufactured, refurbished, or replaced. DWR also invests substantial resources to conduct engineering feasibility and design studies to improve the overall water to energy conversion of all SWP equipment and facilities. DWR's improvement programs include pump and turbine replacements and refurbishments using state-of-the-art design and construction methods to bring SWP's hydroelectric units to first in class levels of energy efficiency. The A.D. Edmonston Pumping Plant and Edward Hyatt Powerplant are two SWP facilities where major energy efficiency projects have been undertaken with some still in progress.

A. D. Edmonston Pumping Plant is the largest plant in the SWP, with 14 pumps, each rated at 80,000 horsepower, pumping water from the California Aqueduct over Tehachapi Mountains into Southern California. Based upon the SWP's metered data, averaged over years 2002 through 2006, with increases in efficiencies measured against each units' original efficiency levels, DWR's refurbishment of Edmonston Unit No. 6 reduces the SWP pumpload requirement by 4,020 MWh annually. Together with upgrades to Edmonston Units No. 1, 2, and 3, by 2011, the SWP pumpload requirement at Edmonston will be reduced by an estimated 40,000 MWh annually.

The SWP's largest generation resource is the Edward Hyatt Powerplant, an underground, hydroelectric, pumping-generating facility constructed in the bedrock below Lake Oroville. DWR developed the Hyatt Powerplant modernization program to increase unit efficiency in the generation mode and reduce power consumption in the pump mode. All six of Hyatt's units have been upgraded using state-of-the-art model design technologies, manufacturing techniques, and materials. DWR's refurbishment of Hyatt Unit Nos. 1 through 6 represents an estimated annual energy savings of 132,000 MWh annually.

DWR will continue its role as the State's third largest generator of clean hydropower. DWR is currently investigating ownership interest and contractual agreements to not only replace its resources provided by coal generation, but also to reduce its use of fossil fuels. This can be accomplished with a combination of cleaner, more efficient resources, including renewables, and improvements to the SWP system. DWR's membership in the

CCAR, as well as the ARB's reporting regulations which integrate and expand upon the CCAR's standards, will provide a consistent and transparent reporting mechanism of DWR's CO2 emissions and its progress in meeting California's GHG emissions reductions goals.

**Emissions Reduction Goals:**

The electric power needed to operate the SWP comes from its own and jointly developed hydroelectric facilities, long-term and short-term purchase agreements, and a 30 year agreement with Nevada Power Company (NPC). Since July 25, 1983, DWR has received up to 235 MW from Unit 4, one of four units at the Reid Gardner coal-fired generation facility located in Moapa, Nevada. In May 2007, DWR formally notified the plant's owner that DWR will not renew this agreement, which expires on July 25, 2013. DWR intends to replace this coal based energy with a combination of cleaner, more efficient resources, improvements to the SWP system and renewable energy resources. Emissions reductions associated with this transition, which includes replacement energy derived from combined cycle gas turbine (CCGT) technology -- using the CEC's forecasted rate of emissions in 2020, is on the order of 30 to 35 percent of the SWP's power portfolio emissions. Consequently, DWR anticipates meeting the AB 32 goal of reducing its carbon emissions to 1990 levels at least six years earlier than the mandated reduction target for California in 2020.

## Appendix E Study of Transfer, Development, and Operation of the Kern Water Bank

Appendix E, page 42, first full paragraph is revised to read:

A summary of the results of this analysis are presented in Table ~~16~~10. The summary table shows the ability to absorb the SWP supplies recharged on the KWB considering the unused absorptive capacity of Kern Fan Projects (i.e., the Berrenda Mesa Project, the COB 2800 Acres, and the Pioneer Project, including the Kern River Channel).

Appendix E, page 45, last paragraph is revised to read:

Figure ~~9.2-1~~7.2-1 of the DEIR shows total water supplies and water demand in the San Joaquin Valley portion of Kern County between 1970 and 1999. In years when total surface water supplies exceeded demand, the excess supply was added to groundwater storage. In years when total surface water supplies were insufficient to meet demand, groundwater was pumped to meet demand and groundwater storage decreased. Between 1970 and 1995, groundwater storage declined by 6.6 million AF, an average reduction in storage of 264,000 AFY~~ per year~~. Figure ~~9.2-2~~7.2-2 of the DEIR shows cumulative groundwater storage for the period 1970 to 1995. During most of the 1970s, groundwater storage declined as a result of dry conditions and limited access to SWP water due to distribution system limitations. Groundwater storage increased from 1978 until the mid-1980s when a ten-year dry period began, resulting in a decline of approximately 7.3 million AF, compared to 1970 storage levels.

# 3. INDEX TO COMMENTS AND RESPONSES

# 3. INDEX TO COMMENTS AND RESPONSES

At the end of the circulation period, a total of 631 written comment letters and e-mails were received addressing the content and analysis in the DEIR. Of this total, 572 of the e-mails received contained a form letter with similar to identical concerns. In addition, oral comments were made at the November 29 and December 3, 4, and 5 hearings on the DEIR. These oral comments were transcribed. Written and transcribed comments have been assigned a letter number (see listing below). Individual comments within a letter/e-mail have been bracketed based on the issue presented and assigned a number. For example, the third comment in Letter 6 is comment number 6-3.

To assist the commenter, this chapter includes Table 3-1 which identifes where the response to each numbered comment is located in the FEIR. Four of the 572 e-mails were bracketed as representative examples of the e-mailed form letters and are listed in Table 3-1: Letters 44, 52, 58 and 61. All the other e-mail form letters are included as part of FEIR Appendix A. The responses to these e-mails are identical to the responses for Letters 44, 52, 58 and 61; therefore, no further responses are provided.

Multiple comments were received with respect to most key issues. To provide comprehensive responses regarding the issues raised, the Department prepared responses addressing all comments relating to each substantive issue within each resource area. Each of these responses provides some background regarding the specific issue, how the issue was addressed in the DEIR, and additional clarification and explanation as appropriate in response to the concerns raised in the comments. At the beginning of each response section, the comments the response addresses are identified. An index (FEIR Table 3-1) is also included in this chapter to assist the commenter in determining where the response to his or her specific comment is located in the following Chapters and Subsections. Some comments have responses in more than one chapter, in which case each chapter is listed in FEIR Table 3-1.

## LIST OF AGENCIES AND PERSONS COMMENTING

### Federal Agencies

1. United States Bureau of Reclamation, Central valley Operations Office, Ronald Milligan, Operations Manager, January 15, 2008.

### Local Agencies

2. Alameda County Flood Control and Water Conservation District, G.F. Duerig, General Manager, January 11, 2008.

3. Alameda County Water District, Paul Piraino, General Manager, January 10, 2008.

4. Castaic Lake Water Agency, Dan Masnada, General Manager, January 11, 2008.

5. Central Coast Water Authority, William J. Brennan, Executive Director, January 14, 2008.

6. Central Delta Water Agency, Dante John Nomellini, Jr., Attorney for the Central Delta Water Agency, January 14, 2008.

7. Coachella Valley Water District, Steve Robbins, General Manager – Chief Engineer, January 4, 2008.

8. Contra Costa Water District, Leah Orloff, Senior Water Resources Specialist, January 14, 2008.

9. Dudley Ridge Water District, Dale K. Melville, Manager – Engineer, January 9, 2008.

10. Kern County Water Agency, James M. Beck, General Manager, January 14, 2008.

11. Kern Water Bank Authority, Jonathan Parker, General Manager, January 14, 2008.

12. Mojave Water Agency, Kirby Brill, General Manager, January 3, 2008.

13. Plumas County Flood Control and Water Conservation District, Rose Comstock, Chair, Plumas County Board of Supervisors, January 9, 2008.

14. Rosedale – Rio Bravo water Storage District and Buena Vista water Storage District, Terry Chicca, President, Board of Directors, January 14, 2008.

15. Semitropic Water Storage District, Wilmar Boschman, General Manager, January 14, 2008.

16. State Water Contractors, Terry L. Erlewine, General Manager, January 14, 2008.

17. South Delta Water Agency, John Herrick, Counsel and Manager, January 14, 2008.

18. Tulare Lake Basin Water Storage District, Brent L. Graham, General Manager, January 7, 2008.

**Organizations**

19. Butte Environmental Council, Barbara Vlamis, Executive Director, January 14, 2008.

20. California Water Impact Network, Carolee Krieger, President, December 4, 2007.

21. California Water Impact Network, Lisa Coffman and Bill Jennings, Executive Directors, January 14, 2008.

22. Citizens Planning Association of Santa Barbara County, Inc., Steve Dunn, President, and Arve Sjovold, Board Member, January 10, 2008.

23. Environmental Justice Coalition for Water, Jennifer Clary, January 14, 2008.

24. Federation of Fly Fishers, Northern California Council, Daniel McDaniel, President, January 11, 2008.

25. Federation of Fly Fishers, Northern California/Nevada Council, Dr. C. Mark Rockwell, D.C., Vice President Conservation, January 10, 2008.

26. Friends of the Santa Clara River, Citizens Committee to Complete the Refugre, and North Coast Rivers Alliance, Stephan C. Volker, Attorney, January 11, 2008.

27. Friends of Harbors, Beaches, and Parks, Melanie Schlotterbeck, Outreach Coordinator, November 17, 2007.

28. Kern Audubon Society, Douglas W. Dodd, Ph.D., Conservation Chair, November 30, 2007.

29. League of Women Voters of California, Janis R. Hirohama, President, January 14, 2008.

30. Planning and Conservation League, Gary A. Patton, Executive Director, and Roger B. Moore, Rossmann and Moore, LLP, January 14, 2008.

31. Planning and Conservation League, Sage Sweetwood, President Emeritus, January 14, 2008.

32. Planning and Conservation League, et. al., Gary Patton, Executive Director, Lynn Barris, Butte Environmental Council, and Ron Bottorff, Friends of the Santa Clara River, January 14, 2008.

33. Rogers, Sheffield & Campbell, LLP, William K. Rogers, January 9, 2008.

34. Sandridge Partners, no date or signature provided.

35. Santa Clarita Organization for Planning and the Environment, Lynne A. Plambeck, President, January 14, 2008.

36. Sierra Club California, Jim Metropoulos, Legislative Representative, January 14, 2008.

37. Tulare Basin Wetlands Association, C. Jeff Thomson, Chairman, January 9, 2008.

**Individuals**

38. Robin Lopez-Armstrong, December 12, 2007.

39. Julia A. Cato, December 30, 2007.

40. Carole & Peter Clum, January 3, 2008.

41. Dixie Coutant, December 12, 2007.

42. Dennis Fox, January 12, 2008.

43. Ann M. Gallon, January 14, 2008.

44. Wayde Hunter, December 11, 2007.

45. Peggy Kennedy, November 30, 2007.

46. Kathleen Labriola, December 27, 2007.

47. Mary Ann Lockhart, January 13, 2008.

48. Edward Mainland, December 29, 2007.

49. Jocelyne Mainland, December 30, 2007.

50. Jeanne Michaels, December 13, 2007.

51. Eileen Murphy, December 7, 2007.

52. Yuko Nakajima, December 13, 2007.

53. Teresa Paris, December 30, 2007.

54. Greg and Laurie Schwaller, January 3, 2008.

55. Glenn Shellcross, December 9, 2007.

56. Arve Sjovold, February 14, 2008.

57. K. Martin Stevenson, December 4, 2007.

58. Diane Straus, December 12, 2007.

59. Dennis Thomas, January 9, 2008.

60. Juana Torres, December 11, 2007.

61. Randall Tyers, December 12, 2007.

62. Arthur Unger, January 14, 2008.

63. Patricia A. Wormington, January 4, 2008.

**Individual Speakers at Hearings**

64. James Brobek, Michael Jackson, Barbara Hennigan, Allison Dvorak, and Steve Duber, November 29, 2007.

65. Adam Scow, Mindy McIntyre, Terry Erlewine, Soren Jespersen, and David Nesmith, December 3, 2007.

66. Carolee Krieger, Dorothy Green, Dan Masnada, Mary Lou Cotton, and Lynn Plambeck, December 4, 2007.

67. Steve Torigiani, Curtis Creel, Renee Nelson, Florn Core, Ann Goudin, Harry Love, Conner Everts, Rick Iger, Arthur Unger, Dennis Fox, and Jon Parker, December 5, 2007.

## FEIR TABLE 3-1

## INDEX TO COMMENTS AND RESPONSES

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| 1 | Ronald Milligan | U.S. Bureau of Reclamation | 1-1 | 7.1.2 |
| | | | 1-2 | 7.1.2 |
| 2 | G.F. Duerig | Alameda County Flood Control and Water Conservation District | 2-1 | 17.2.3 |
| 3 | Paul Piraino | Alameda County Water District | 3-1 | 17.2.3 |
| 4 | Dan Masnada | Castaic Lake Water Agency | 4-1 | 17.2.3 |
| | | | 4-2 | 5.3 |
| | | | 4-3 | 17.2.3 |
| 5 | William J. Brennan | Central Coast Water Authority | 5-1 | 17.2.3 |
| 6 | Dante John Nomellini, Jr. | Central Delta Water Agency | 6-1 | 4.3, 5.3, 11.3 |
| | | | 6-2 | 13.3 |
| | | | 6-3 | 4.3, 13.3 |
| | | | 6-4 | 16.3 |
| | | | 6-5 | 4.3 |
| | | | 6-6 | 7.2.3 |
| | | | 6-7 | 7.2.3 |
| | | | 6-8 | 7.2.3 |
| | | | 6-9 | 11.3 |
| | | | 6-10 | 5.3, 11.3 |
| | | | 6-11 | 7.1.2 |
| | | | 6-12 | 7.1.2 |
| | | | 6-13 | 8.3 |
| | | | 6-14 | 8.3 |
| | | | 6-15 | 8.3 |
| | | | 6-16 | 9.3, 13.3 |
| | | | 6-17 | 10.2 |
| | | | 6-18 | 8.3 |
| | | | 6-19 | 11.3 |
| | | | 6-20 | 4.3 |
| 7 | Steve Robbins | Coachella Valley Water District | 7-1 | 17.2.3 |
| 8 | Leah Orloff | Contra Costa Water District | 8-1 | 7.1.2 |
| | | | 8-2 | 7.1.2 |
| 9 | Dale K. Melville | Dudley Ridge Water District | 9-1 | 17.2.3 |
| 10 | James M. Beck | Kern County Water Agency | 10-1 | 17.2.3 |
| 11 | Jonathan Parker | Kern Water Bank Authority | 11-1 | 4.3, 16.3 |
| | | | 11-2 | 16.3 |
| | | | 11-3 | 7.3.2 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 11-4 | 11.3, 16.3 |
| | | | 11-5 | 16.3 |
| | | | 11-6 | 11.3, 16.3 |
| | | | 11-7 | 11.3 |
| | | | 11-8 | 16.3, 17.2.3, 17.2.13 |
| 12 | Kirby Brill | Mojave Water Agency | 12-1 | 17.2.3 |
| 13 | Rose Comstock | Plumas County Flood Control & Water Conservation District | 13-1 | 12.3 |
| | | | 13-2 | 10.3 |
| | | | 13-3 | 12.3 |
| 14 | Terry Chicca | Rosedale-Rio Bravo and Buena Vista Water Storage Districts | 14-1 | 16.3 |
| | | | 14-2 | 4.3, 16.3 |
| | | | 14-3 | 16.3 |
| | | | 14-4 | 16.3 |
| | | | 14-5 | 16.3 |
| | | | 14-6 | 16.3 |
| | | | 14-7 | 17.2.3 |
| 15 | Wilmar Boschman | Semitropic Water Storage District | 15-1 | 17.2.3 |
| | | | 15-2 | 6.1.3 |
| | | | 15-3 | 6.1.3, 11.3 |
| | | | 15-4 | 17.2.3 |
| 16 | Terry L. Erlewine | State Water Contractors | 16-1 | 4.3, 5.3 |
| | | | 16-2 | 5.3 |
| | | | 16-3 | 13.3 |
| | | | 16-4 | 14.3 |
| | | | 16-5 | 16.3 |
| | | | 16-6 | 15.3 |
| | | | 16-7 | 15.3 |
| | | | 16-8 | 6.3.3 |
| | | | 16-9 | 6.3.3 |
| | | | 16-10 | 6.3.3, 15.3 |
| | | | 16-11 | 6.3.3 |
| | | | 16-12 | 6.3.3, 7.2.3 |
| | | | 16-13 | 7.2.3 |
| | | | 16-14 | 8.3 |
| | | | 16-15 | 11.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 16-16 | 5.3, 13.3, 14.3 |
| | | | 16-17 | 4.3 |
| | | | 16-18 | 14.3 |
| | | | 16-19 | 13.3 |
| | | | 16-20 | 13.3 |
| | | | 16-21 | 16.3 |
| | | | 16-22 | 6.3 |
| | | | 16-23 | 15.3 |
| | | | 16-24 | 15.3 |
| | | | 16-25 | 15.3 |
| | | | 16-26 | 7.1.2 |
| | | | 16-27 | 7.4.2 |
| | | | 16-28 | 15.3 |
| | | | 16-29 | 7.3.2 |
| | | | 16-30 | 7.4.2 |
| | | | 16-31 | 7.5.2 |
| | | | 16-32 | 7.6.2 |
| | | | 16-33 | 7.7.2 |
| | | | 16-34 | 13.3 |
| | | | 16-35 | 9.3 |
| | | | 16-36 | 7.1.2 |
| | | | 16-37 | 15.3 |
| | | | 16-38 | 13.3 |
| | | | 16-39 | 15.3 |
| | | | 16-40 | 4.3 |
| | | | 16-41 | 13.3 |
| | | | 16-42 | 15.3 |
| | | | 16-43 | 4.3 |
| | | | 16-44 | 13.3 |
| | | | 16-45 | 11.3 |
| | | | 16-46 | 6.1.3 |
| | | | 16-47 | 6.3.3 |
| | | | 16-48 | 14.3 |
| | | | 16-49 | 15.3 |
| | | | 16-50 | 15.3 |
| | | | 16-51 | 7.2.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 16-52 | 7.2.3 |
| | | | 16-53 | 7.2.3 |
| | | | 16-54 | 4.3 |
| | | | 16-55 | 4.3 |
| | | | 16-56 | 4.3 |
| | | | 16-57 | 4.3 |
| | | | 16-58 | 6.3.3 |
| | | | 16-59 | 6.3.3 |
| | | | 16-60 | 15.3 |
| | | | 16-61 | 15.3 |
| | | | 16-62 | 7.2.3 |
| | | | 16-63 | 4.3 |
| | | | 16-64 | 4.3 |
| | | | 16-65 | 7.1.2 |
| | | | 16-66 | 7.1.2 |
| | | | 16-67 | 6.3.3 |
| | | | 16-68 | 7.1.2 |
| | | | 16-69 | 7.1.2 |
| | | | 16-70 | 7.1.2 |
| | | | 16-71 | 7.1.2 |
| | | | 16-72 | 7.1.2 |
| | | | 16-73 | 7.1.2 |
| | | | 16-74 | 7.1.2 |
| | | | 16-75 | 7.1.2 |
| | | | 16-76 | 7.1.2 |
| | | | 16-77 | 7.1.2 |
| | | | 16-78 | 7.1.2 |
| | | | 16-79 | 7.1.2 |
| | | | 16-80 | 7.1.2 |
| | | | 16-81 | 7.1.2 |
| | | | 16-82 | 7.2.3 |
| | | | 16-83 | 7.2.3 |
| | | | 16-84 | 7.2.3 |
| | | | 16-85 | 7.2.3 |
| | | | 16-86 | 7.2.3 |
| | | | 16-87 | 7.2.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 16-88 | 7.2.3 |
| | | | 16-89 | 7.2.3 |
| | | | 16-90 | 7.2.3 |
| | | | 16-91 | 7.2.3 |
| | | | 16-92 | 7.2.3 |
| | | | 16-93 | 7.3.2 |
| | | | 16-94 | 7.6.2, 15.3 |
| | | | 16-95 | 15.3 |
| | | | 16-96 | 7.8.2 |
| | | | 16-97 | 7.8.2 |
| | | | 16-98 | 8.3 |
| | | | 16-99 | 8.3 |
| | | | 16-100 | 12.3 |
| | | | 16-101 | 12.3 |
| | | | 16-102 | 15.3 |
| | | | 16-103 | 17.2.3 |
| | | | 16-104 | 7.3.2 |
| | | | 16-105 | 6.2.3, 7.3.2 |
| | | | 16-106 | 7.3.2 |
| | | | 16-107 | 7.3.2 |
| | | | 16-108 | 7.3.2 |
| | | | 16-109 | 7.3.2 |
| | | | 16-110 | 7.3.2 |
| | | | 16-111 | 7.3.2 |
| | | | 16-112 | 7.6.2 |
| 17 | John Herrick | South Delta Water Agency | 17-1 | 9.3, 13.3 |
| | | | 17-2 | 9.3, 14.3 |
| | | | 17-3 | 14.3 |
| | | | 17-4 | 13.3 |
| | | | 17-5 | 7.1.2 |
| | | | 17-6 | 4.3, 16.3 |
| | | | 17-7 | 13.3, 16.3 |
| | | | 17-8 | 11.3, 13.3 |
| | | | 17-9 | 6.1.3 |
| | | | 17-10 | 7.2.3 |
| | | | 17-11 | 17.2.13 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 17-12 | 9.3, 13.3 |
| 18 | Brent L. Graham | Tulare Lake Basin Water Storage District | 18-1 | 17.2.3 |
| 19 | Barbara Vlamis | Butte Environmental Council | 19-1 | 13.3 |
| | | | 19-2 | 11.3, 13.3 |
| | | | 19-3 | 6.2.3, 7.1.2, 10.2 |
| | | | 19-4 | 8.3 |
| | | | 19-5 | 13.3 |
| | | | 19-6 | 10.2 |
| | | | 19-7 | 17.2.5.2, 17.2.5.3, 17.2.5.8, 17.2.6.1, 17.2.6.2, 17.2.8, 17.2.10.2, 17.2.10.3 |
| 20 | Carolee Kreiger | California Water Impact Network | 20-1 | 17.2.3, 17.2.4.3 |
| | | | 20-2 | 17.2.5.8 |
| | | | 20-3 | 17.2.8, 17.2.11 |
| | | | 20-4 | 17.2.7.3 |
| | | | 20-5 | 17.2.6.1 |
| | | | 20-6 | 17.2.5.6, 17.2.11 |
| | | | 20-7 | 17.2.5.4 |
| | | | 20-8 | 17.2.3 |
| | | | 20-9 | 7.2.3 |
| | | | 20-10 | 17.2.13 |
| 21 | Lisa Coffman/Bill Jennings | California Water Impact Network/California Sportfishing Protection Alliance | 21-1 | 17.2.4.3 |
| | | | 21-2 | 17.2.2, 17.2.4.1, 17.2.5.10, 17.2.6.1, 17.2.6.2 |
| | | | 21-3 | 14.3 |
| | | | 21-4 | 17.2.7.1, 17.2.7.3 |
| | | | 21-5 | 17.2.5.3, 17.2.5.4, 17.2.5.5, 17.2.5.7, 17.2.5.8, 17.2.11 |
| | | | 21-6 | 17.2.8, 17.2.11 |
| | | | 21-7 | 17.2.3 |
| | | | 21-8 | 17.2.13 |
| | | | 21-9 | 4.3 |
| | | | 21-10 | 9.3, 13.3 |
| | | | 21-11 | 13.3 |
| | | | 21-12 | 14.3 |
| | | | 21-13 | 13.3 |
| | | | 21-14 | 15.3 |
| | | | 21-15 | 6.1.3, 6.2.3 |
| | | | 21-16 | 6.1.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 21-17 | 6.1.3 |
| | | | 21-18 | 6.3.3 |
| | | | 21-19 | 6.3.3 |
| | | | 21-20 | 6.3.3 |
| | | | 21-21 | 6.3.3 |
| | | | 21-22 | 6.3.3 |
| | | | 21-23 | 6.3.3 |
| | | | 21-24 | 7.2.3 |
| | | | 21-25 | 6.3.3 |
| | | | 21-26 | 7.2.3 |
| | | | 21-27 | 7.2.3 |
| | | | 21-28 | 7.1.2 |
| | | | 21-29 | 7.2.3 |
| | | | 21-30 | 7.2.3 |
| | | | 21-31 | 7.2.3 |
| | | | 21-32 | 7.2.3 |
| | | | 21-33 | 7.2.3 |
| | | | 21-34 | 7.2.3 |
| | | | 21-35 | 7.2.3 |
| | | | 21-36 | 7.2.3 |
| | | | 21-37 | 7.8.3 |
| | | | 21-38 | 7.8.3 |
| | | | 21-39 | 8.3 |
| | | | 21-40 | 8.3 |
| | | | 21-41 | 8.3 |
| | | | 21-42 | 8.3 |
| | | | 21-43 | 8.3 |
| | | | 21-44 | 9.3 |
| | | | 21-45 | 9.3 |
| | | | 21-46 | 10.2 |
| | | | 21-47 | 11.3 |
| | | | 21-48 | 11.3 |
| | | | 21-49 | 11.3 |
| | | | 21-50 | 11.3 |
| | | | 21-51 | 11.3 |
| | | | 21-52 | 12.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 21-53 | 12.3 |
| | | | 21-54 | 9.3, 13.3 |
| | | | 21-55 | 6.3, 12.3 |
| | | | 21-56 | 11.3 |
| | | | 21-57 | 16.3 |
| | | | 21-58 | 16.3 |
| | | | 21-59 | 16.3 |
| | | | 21-60 | 16.3 |
| | | | 21-61 | 16.3 |
| | | | 21-62 | 17.2.3, 17.2.5.2, 17.2.5.3, 17.2.6.1 |
| 22 | Steve Dunn/Arve Sjovold | Citizens Planning Association of Santa Barbara County, Inc. | 22-1 | 5.3, 6.3.3 |
| | | | 22-2 | 6.3.3, 17.2.13 |
| | | | 22-3 | 6.3.3, 17.2.3 |
| | | | 22-4 | 6.3.3 |
| | | | 22-5 | 6.3.3 |
| | | | 22-6 | 6.3.3 |
| | | | 22-7 | 6.3.3 |
| | | | 22-8 | 6.3.3 |
| | | | 22-9 | 6.3.3 |
| | | | 22-10 | 6.3.3 |
| | | | 22-11 | 6.3.3 |
| | | | 22-12 | 6.3.3 |
| | | | 22-13 | 6.3.3 |
| | | | 22-14 | 6.3.3 |
| | | | 22-15 | 6.3.3, 7.1.2 |
| | | | 22-16 | 7.1.2 |
| | | | 22-17 | 9.3, 14.3 |
| | | | 22-18 | 15.3 |
| | | | 22-19 | 15.3 |
| | | | 22-20 | 11.3 |
| | | | 22-21 | 7.2.3 |
| | | | 22-22 | 7.8.3, 16.3 |
| | | | 22-23 | 9.3 |
| | | | 22-24 | 9.3 |
| | | | 22-25 | 16.3 |
| | | | 22-26 | 9.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 22-27 | 6.3.3 |
| | | | 22-28 | 12.3 |
| | | | 22-29 | 6.3.3 |
| | | | 22-30 | 7.2.3 |
| | | | 22-31 | 6.3.3 |
| 23 | Jennifer Clary | Environmental Justice Coalition for Water | 23-1 | 10.3 |
| | | | 23-2 | 16.3 |
| 24 | Daniel A. McDaniel | Northern California Council of the Federation of Fly Fishers | 24-1 | 17.2.3 |
| | | | 24-2 | 17.2.1, 17.2.3 |
| | | | 24-3 | 17.2.3, 17.2.4.1, 17.2.4.3, 17.2.5.4, 17.2.5.6, 17.2.5.8, 17.2.5.10, 17.2.6.1, 17.2.6.2, |
| | | | 24-4 | 17.2.5.3, 17.2.5.5, 17.2.5.7, 17.2.5.8, 17.2.7.3 |
| | | | 24-5 | 17.2.3, 17.2.4.2, 17.2.4.4, 17.2.10.2, 17.2.10.3 |
| 25 | Dr. C. Mark Rockwell | Northern California Council for the Federation of Fly Fishers | 25-1 | 17.2.3, 17.2.4.3, 17.2.5.6, 17.2.5.10, 17.2.6.1 |
| | | | 25-2 | 17.2.5.8 |
| | | | 25-3 | 17.2.4.1, 17.2.5.4, 17.2.5.5, 17.2.5.6, 17.2.5.10, 17.2.6.1, 17.2.6.2 |
| | | | 25-4 | 17.2.5.3, 17.2.5.5, 17.2.5.8, 17.2.7.3 |
| | | | 25-5 | 17.2.3, 17.2.4.2, 17.2.4.4, 17.2.10.2, 17.2.10.3 |
| 26 | Stephan C. Volker | Friends of the Santa Clara River, Citizens Committeto Complete the Refuge, and North Coasgt Rivers Alliance | 26-1 | 16.3 |
| | | | 26-2 | 13.3 |
| | | | 26-3 | 7.2.3 |
| | | | 26-4 | 17.2.3 |
| | | | 26-5 | 7.2.3 |
| | | | 26-6 | 11.3 |
| | | | 26-7 | 7.2.3 |
| | | | 26-8 | 17.2.2, 17.2.3, 17.2.4.1, 17.2.4.3, 17.2.4.4, 17.2.5.2, 17.2.5.3, 17.2.5.8, 17.2.7.1, 17.2.7.2, 17.2.7.3, 17.2.10.2, 17.2.10.3 |
| | | | 26-9 | 6.2.3 |
| | | | 26-10 | 4.3 |
| 27 | Melanie Schlotterbeck | Friends of Harbors, Beaches, and Parks | 27-1 | 17.2.12 |
| | | | 27-2 | 17.2.5.8 |
| | | | 27-3 | 17.2.8, 17.2.6.1, 17.2.6.2 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 27-4 | 17.2.4.2, 17.2.5.5, 17.2.7.3 |
| | | | 27-5 | 17.2.11 |
| | | | 27-6 | 17.2.4.1, 17.2.5.6, 17.2.5.10, 17.2.6.1, 17.2.6.2 |
| | | | 27-7 | 17.2.12 |
| 28 | Douglas W. Dodd, W., Ph.D. | Kern Audubon Society | 28-1 | 17.2.3, 17.2.8, 17.2.11 |
| | | | 28-2 | 17.2.1, 17.2.5.4, 17.2.5.5, 17.2.5.6, 17.2.5.7, 17.2.5.8, 17.2.5.9, 17.2.7.1, 17.2.7.2 |
| | | | 28-3 | 17.2.4.1, 17.2.4.2, 17.2.5.4, 17.2.5.5, 17.2.7.3 |
| | | | 28-4 | 17.2.3, 17.2.5.5, 17.2.5.6, 17.2.5.10, 17.2.6.1, 17.2.6.2, 17.2.7.3 |
| 29 | Janis R. Hirohana | League of Women Voters of California | 29-1 | 17.2.2, 17.2.3, 17.2.4.2 |
| | | | 29-2 | 17.2.1 |
| | | | 29-3 | 17.2.5.8 |
| | | | 29-4 | 17.2.5.3, 17.2.8 |
| | | | 29-5 | 17.2.5.4, 17.2.5.5, 17.2.7.3 |
| | | | 29-6 | 17.2.4.1, 17.2.5.6, 17.2.5.10, 17.2.6.1, 17.2.6.2 |
| | | | 29-7 | 17.2.3 |
| 30 | Gary A. Patton/Roger B. Moore | Planning and Conservation League | 30-1 | 4.3 |
| | | | 30-2 | 4.3 |
| | | | 30-3 | 4.3 |
| | | | 30-4 | 4.3, 9.3, 13.3 |
| | | | 30-5 | 6.1.3 |
| | | | 30-6 | 6.3.3 |
| | | | 30-7 | 11.3 |
| | | | 30-8 | 16.3 |
| | | | 30-9 | 8.3 |
| | | | 30-10 | 9.3 |
| | | | 30-11 | 4.3 |
| | | | 30-12 | 12.3 |
| | | | 30-13 | 5.3 |
| | | | 30-14 | 5.3 |
| | | | 30-15 | 4.3 |
| | | | 30-16 | 9.3, 11.3, 13.3 |
| | | | 30-17 | 9.3 |
| | | | 30-18 | 4.3, 16.3 |
| | | | 30-19 | 4.3, 5.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 30-20 | 4.3 |
| | | | 30-21 | 11.3 |
| | | | 30-22 | 9.3, 11.3, 13.3 |
| | | | 30-23 | 13.3 |
| | | | 30-24 | 9.3, 11.3 |
| | | | 30-25 | 14.3 |
| | | | 30-26 | 9.3, 13.3 |
| | | | 30-27 | 9.3, 14.3 |
| | | | 30-28 | 9.3 |
| | | | 30-29 | 5.3 |
| | | | 30-30 | 5.3 |
| | | | 30-31 | 4.3, 5.3 |
| | | | 30-32 | 4.3, 5.3 |
| | | | 30-33 | 4.3 |
| | | | 30-34 | 6.1.3, 6.2.3, 15.3 |
| | | | 30-35 | 6.1.3 |
| | | | 30-36 | 6.3.3 |
| | | | 30-37 | 4.3, 16.3 |
| | | | 30-38 | 16.3 |
| | | | 30-39 | 16.3 |
| | | | 30-40 | 16.3 |
| | | | 30-41 | 16.3 |
| | | | 30-42 | 16.3 |
| | | | 30-43 | 7.2.3, 16.3 |
| | | | 30-44 | 11.3 |
| | | | 30-45 | 16.3 |
| | | | 30-46 | 11.3 |
| | | | 30-47 | 5.3, 11.3 |
| | | | 30-48 | 11.3 |
| | | | 30-49 | 15.3 |
| | | | 30-50 | 9.3, 14.3 |
| | | | 30-51 | 15.3 |
| | | | 30-52 | 15.3 |
| | | | 30-53 | 13.3, 14.3 |
| | | | 30-54 | 4.3 |
| | | | 30-55 | 13.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 30-56 | 7.2.3 |
| | | | 30-57 | 8.3 |
| | | | 30-58 | 9.3 |
| | | | 30-59 | 12.3 |
| | | | 30-60 | 10.2 |
| | | | 30-61 | 9.3 |
| | | | 30-62 | 17.2.3 |
| | | | 30-63 | 8.3 |
| | | | 30-64 | 11.3 |
| | | | 30-65 | 8.3 |
| | | | 30-66 | 11.3 |
| | | | 30-67 | 8.3 |
| | | | 30-68 | 13.3 |
| | | | 30-69 | 8.3 |
| | | | 30-70 | 8.3 |
| | | | 30-71 | 6.1.3 |
| | | | 30-72 | 11.3 |
| | | | 30-73 | 6.3.3 |
| | | | 30-74 | 9.3 |
| | | | 30-75 | 4.3 |
| | | | 30-76 | 4.3 |
| | | | 30-77 | 6.3.3 |
| | | | 30-78 | 8.3 |
| | | | 30-79 | 4.3 |
| | | | 30-80 | 15.3 |
| | | | 30-81 | 4.3 |
| | | | 30-82 | 4.3 |
| | | | 30-83 | 5.3 |
| | | | 30-84 | 7.2.3 |
| | | | 30-85 | 12.3 |
| | | | 30-86 | 7.1.2 |
| | | | 30-87 | 4.3 |
| | | | 30-88 | 4.3 |
| | | | 30-89 | 5.3 |
| | | | 30-90 | 16.3 |
| | | | 30-91 | 6.2.3, 7.1.2 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 30-92 | 10.2 |
| | | | 30-93 | 6.3.3 |
| | | | 30-94 | 15.3 |
| | | | 30-95 | 15.3 |
| | | | 30-96 | 15.3 |
| | | | 30-97 | 15.3 |
| | | | 30-98 | 15.3 |
| | | | 30-99 | 15.3 |
| | | | 30-100 | 9.3 |
| | | | 30-101 | 9.3 |
| | | | 30-102 | 9.3 |
| | | | 30-103 | 9.3 |
| | | | 30-104 | 9.3 |
| | | | 30-105 | 9.3 |
| | | | 30-106 | 6.3.3 |
| | | | 30-107 | 8.3 |
| | | | 30-108 | 8.3 |
| | | | 30-109 | 16.2.3 |
| | | | 30-110 | 6.3.3 |
| | | | 30-111 | 15.3 |
| | | | 30-112 | 8.3, 15.3 |
| | | | 30-113 | 8.3, 15.3 |
| | | | 30-114 | 8.3, 15.3 |
| | | | 30-115 | 6.3.3, 8.3, 9.3, 13.3 |
| | | | 30-116 | 6.3.3 |
| | | | 30-117 | 6.3.3 |
| | | | 30-118 | 6.3.3 |
| | | | 30-119 | 6.3.3, 15.3 |
| | | | 30-120 | 6.3.3 |
| | | | 30-121 | 15.3 |
| | | | 30-122 | 6.3.3, 15.3 |
| | | | 30-123 | 15.3 |
| | | | 30-124 | 16.3 |
| | | | 30-125 | 15.3, 16.3 |
| | | | 30-126 | 15.3 |
| | | | 30-127 | 7.2.3, 16.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 30-128 | 15.3 |
| | | | 30-129 | 16.3 |
| | | | 30-130 | 16.3 |
| | | | 30-131 | 16.3 |
| | | | 30-132 | 15.3, 16.3 |
| | | | 30-133 | 6.3.3 |
| | | | 30-134 | 6.1.3 |
| | | | 30-135 | 4.3 |
| | | | 30-136 | 4.3 |
| | | | 30-137 | 4.3 |
| | | | 30-138 | 11.3 |
| | | | 30-139 | 6.1.3, 15.3 |
| | | | 30-140 | 6.1.3, 12.3 |
| | | | 30-141 | 15.3 |
| | | | 30-142 | 6.3.3 |
| | | | 30-143 | 7.2.3, 15.3 |
| | | | 30-144 | 9.3, 14.3 |
| | | | 30-145 | 7.2.3 |
| | | | 30-146 | 8.3 |
| | | | 30-147 | 11.3 |
| | | | 30-148 | 7.1.2 |
| | | | 30-149 | 7.2.3 |
| | | | 30-150 | 10.2 |
| | | | 30-151 | 11.3, 13.3 |
| | | | 30-152 | 11.3 |
| | | | 30-153 | 17.2.3 |
| 31 | Sage Sweetwood | Planning and Conservation League | 31-1 | 4.3, 16.3 |
| | | | 31-2 | 6.3.3 |
| | | | 31-3 | 17.2.3 |
| | | | 31-4 | 9.2, 11.3, 13.3 |
| | | | 31-5 | 7.2.3, 9.3 |
| | | | 31-6 | 11.3 |
| | | | 31-7 | 5.3 |
| | | | 31-8 | 12.3 |
| | | | 31-9 | 17.2.3 |
| 32 | Gary Patton/Lynn Barris/ | Planning and Conservation League/Butte | 32-1 | 17.2.3, 17.2.4.1, 17.2.4.3, 17.2.5.4, 17.2.5.6, 17.2.5.8, |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | Ron Bottorf | Environmental Council/Friends of the Santa Clara River | | 17.2.5.10, 17.2.6.1, 17.2.6.2 |
| | | | 32-2 | 17.2.4.2, 17.2.4.4,17.2.5.3, 17.2.5.4, 17.2.5.5, 17.2.5.7, 17.2.5.8, 17.2.5.9, 17.2.7.3, 17.2.10.2, 17.2.10.3 |
| | | | 32-3 | 17.2.3 |
| 33 | William K. Rogers | Rogers, Sheffield & Campbell, LLP | 33-1 | 17.2.3, 17.2.8, 17.2.9 |
| 34 | | Sandridge Partners | 34-1 | 16.3 |
| | | | 34-2 | 16.3 |
| | | | 34-3 | 16.3 |
| | | | 34-4 | 16.3 |
| 35 | Lynne A. Plambeck | Santa Clarita Organization for Planning and the Environment | 35-1 | 17.2.3 |
| | | | 35-2 | 17.2.12 |
| | | | 35-3 | 8.3, 14.3, 15.3 |
| | | | 35-4 | 7.2.3 |
| | | | 35-5 | 8.3, 9.3, 13.3 |
| | | | 35-6 | 8.3 |
| | | | 35-7 | 8.3 |
| | | | 35-8 | 11.3 |
| 36 | Jim Metropulos | Sierra Club California | 36-1 | 7.2.3 |
| | | | 36-2 | 6.1.3 |
| | | | 36-3 | 5.3 |
| | | | 36-4 | 5.3 |
| | | | 36-5 | 11.3 |
| | | | 36-6 | 16.3 |
| | | | 36-7 | 13.3 |
| | | | 36-8 | 13.3 |
| | | | 36-9 | 9.3, 13.3 |
| | | | 36-10 | 8.3, 9.3, 13.3 |
| | | | 36-11 | 9.3 |
| | | | 36-12 | 9.3 |
| | | | 36-13 | 7.2.3 |
| | | | 36-14 | 7.2.3, 11.3 |
| | | | 36-15 | 7.2.3, 14.3 |
| | | | 36-16 | 7.2.3 |
| | | | 36-17 | 16.3 |
| | | | 36-18 | 5.3, 11.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 36-19 | 11.3 |
| | | | 36-20 | 17.2.3 |
| 37 | C. Jeff Thomson | Tulare Basin Wetlands Association | 37-1 | 17.2.3, 17.2.8, 17.2.9 |
| 38 | Robin Lopez-Armstrong | | 38-1 | 17.2.3, 17.2.8, 17.2.11 |
| 39 | Julia A. Cato | | 39-1 | 17.2.2, 17.2.3, 17.2.4.2, 17.2.4.4, 17.2.5.5, 17.2.5.8, 17.2.5.9, 17.2.7.1, 17.2.7.3, 17.2.8, 17.2.10.2, 17.2.10.3, 17.2.11 |
| 40 | Carole & Peter Clum | | 40-1 | 17.2.3 |
| | | | 40-2 | 17.2.8, 17.2.11 |
| | | | 40-3 | 17.2.4.2, 17.2.4.4, 17.2.5.8 |
| | | | 40-4 | 17.2.4.1, 17.2.5.6, 17.2.5.10, 17.2.6.1, 17.2.6.2 |
| | | | 40-5 | 17.2.11 |
| 41 | Dixie Coutant | | 41-1 | 17.2.3, 17.2.5.8, 17.2.7.3 |
| | | | 41-2 | 17.2.6.1, 17.2.6.2 |
| | | | 41-3 | 17.2.2, 17.2.7.3 |
| | | | 41-4 | 17.2.3 |
| 42 | Dennis Fox | | 42-1 | 17.2.2 |
| | | | 42-2 | 6.1.3 |
| | | | 42-3 | 16.3 |
| | | | 42-4 | 12.3 |
| | | | 42-5 | 7.8.3 |
| | | | 42-6 | 8.3 |
| | | | 42-7 | 17.2.2 |
| | | | 42-8 | 16.3 |
| | | | 42-9 | 17.2.8, 17.2.9 |
| | | | 42-10 | 7.5.2 |
| | | | 42-11 | 16.3 |
| | | | 42-12 | 10.3, 16.3 |
| | | | 42-13 | 5.3 |
| 43 | Ann Gallon | | 43-1 | 17.2.2, 17.2.3 |
| | | | 43-2 | 17.2.8 |
| | | | 43-3 | 17.2.7.3, 17.2.8 |
| | | | 43-4 | 17.2.11 |
| | | | 43-5 | 17.2.3, 17.2.4.2 |
| 44 | Wayde Hunter | | 44-1 | 17.2.2, 17.2.3, 17.2.5.3 |
| | | | 44-2 | 17.2.7.3, 17.2.6.1, 17.2.6.2 |
| | | | 44-3 | 17.2.5.4, 17.2.5.8, 17.2.5.9, 17.2.7.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 44-4 | 17.2.4.4, 17.2.5.5, 17.2.7.3, 17.2.10.2, 17.2.10.3 |
| | | | 44-5 | 17.2.3, 17.2.4.4, 17.2.6.1, 17.2.6.2, 17.2.7.3 |
| 45 | Peggy Kennedy | | 45-1 | 17.2.3, 17.2.5.5, 17.2.7.3 |
| | | | 45-2 | 17.2.8 |
| | | | 45-3 | 17.2.3, 17.2.5.4, 17.2.5.8 |
| 46 | Kathleen Labriola | | 46-1 | 17.2.3, 17.2.8 |
| | | | 46-2 | 17.2.5.8, 17.2.7.3 |
| | | | 46-3 | 17.2.11 |
| | | | 46-4 | 17.2.4.1, 17.2.4.2, 17.2.4.4, 17.2.5.9, 17.2.7.3, 17.2.10.2, 17.2.10.3 |
| 47 | Mary Ann Lockhart | | 47-1 | 17.2.2 |
| | | | 47-2 | 17.2.2, 17.2.7.1, 17.2.7.2 |
| | | | 47-3 | 6.2.3, 7.1.2 |
| | | | 47-4 | 17.2.2, 17.2.4.4, 17.2.11 |
| | | | 47-5 | 17.2.2, 17.2.6.1, 17.2.6.2 |
| | | | 47-6 | 17.2.2, 17.2.8, 17.2.11 |
| | | | 47-7 | 4.3 |
| 48 | Edward Mainland | | 48-1 | 17.2.2, 17.2.3, 17.2.4.2, 17.2.4.4, 17.2.5.5, 17.2.5.8, 17.2.5.9, 17.2.7.3, 17.2.10.2, 17.2.10.3 |
| 49 | Jocelyne Mainland | | 49-1 | 17.2.2, 17.2.3, 17.2.4.2, 17.2.4.4, 17.2.5.8, 17.2.5.9, 17.2.10.2, 17.2.10.3 |
| 50 | Jeanne Michaels | | 50-1 | 17.2.3, 17.2.7.3 |
| 51 | Ellen Murphy | | 51-1 | 17.2.1, 17.2.2, 17.2.3, 17.2.4.2, 17.2.5.4, 17.2.5.5, 17.2.5.6, 17.2.5.8, 17.2.6.1, 17.2.6.2, 17.2.8, 17.2.11 |
| 52 | Yuko Nakajima | | 52-1 | 17.2.3 |
| | | | 52-2 | 17.2.6.1, 17.2.6.2, 17.2.7.3 |
| | | | 52-3 | 17.2.5.4, 17.2.5.8, 17.2.5.9, 17.2.7.3, |
| | | | 52-4 | 17.2.4.4, 17.2.5.5, 17.2.7.3, 17.2.10.2, 17.2.10.3 |
| | | | 52-5 | 17.2.3, 17.2.4.4, 17.2.6.1, |
| 53 | Teresa Paris | | 53-1 | 17.2.3, 17.2.8 |
| | | | 53-2 | 17.2.5.8, 17.2.7.3 |
| | | | 53-3 | 17.2.11 |
| | | | 53-4 | 17.2.7.3 |
| 54 | Laurie and Greg Schwaller | | 54-1 | 17.2.3 |
| | | | 54-2 | 17.2.2, 17.2.4.2, 17.2.4.4, 17.2.5.8 |
| | | | 54-3 | 17.2.8, 17.2.11 |
| | | | 54-4 | 17.2.5.4, 17.2.5.5, 17.2.5.6, 17.2.6.1, 17.2.6.2, 17.2.7.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 54-5 | 17.2.11 |
| | | | 54-6 | 17.2.3 |
| 55 | Glenn Shellcross | | 55-1 | 17.2.3, 17.2.8 |
| 56 | Arve Sjovold | | 56-1 | 9.3 |
| 57 | K. Martin Stevenson | | 57-1 | 17.2.3, 17.2.4.3, 17.2.5.4, 17.2.5.5, 17.2.5.6, 17.2.7.3 |
| | | | 57-2 | 17.2.4.1, 17.2.5.6, 17.2.5.10, 17.2.6.1, 17.2.6.2 |
| | | | 57-3 | 17.2.5.8 |
| | | | 57-4 | 17.2.8 |
| | | | 57-5 | 17.2.11 |
| 58 | Diane Straus | | 58-1 | 17.2.3 |
| | | | 58-2 | 17.2.6.1, 17.2.6.2, 17.2.7.3 |
| | | | 58-3 | 17.2.4.4, 17.2.5.5, 17.2.7.3, 17.2.10.2, 17.2.10.3 |
| | | | 58-4 | 17.2.3, 17.2.4.4, 17.2.6.1, 17.2.6.2, 17.2.7.3 |
| 59 | Dennis Thomas | | 59-1 | 17.2.3, 17.2.7.3 |
| | | | 59-2 | 17.2.4.2, 17.2.4.4, 17.2.5.9, 17.2.10.2, 17.2.10.3 |
| 60 | Juana Torres | | 60-1 | 17.2.3 |
| | | | 60-2 | 17.2.5.8, 17.2.8 |
| | | | 60-3 | 17.2.5.4, 17.2.5.5, 17.2.5.6, 17.2.6.1, 17.2.6.2 |
| | | | 60-4 | 17.2.3 |
| 61 | Randall Tyers | | 61-1 | 17.2.3 |
| | | | 61-2 | 17.2.6.1, 17.2.6.2, 17.2.7.3 |
| | | | 61-3 | 17.2.5.4, 17.2.5.8, 17.2.5.9, 17.2.7.3 |
| | | | 61-4 | 17.2.4.4, 17.2.5.5, 17.2.7.3, 17.2.10.2, 17.2.10.3 |
| | | | 61-5 | 17.2.3, 17.2.4.4, 17.2.6.1, 17.2.6.2, 17.2.7.3 |
| 62 | Arthur Unger | | 62-1 | 17.2.2, 17.2.5.3, 17.2.6.1, 17.2.10.2 |
| | | | 62-2 | 7.8.3, 12.3 |
| | | | 62-3 | 17.2.2, 17.2.4.4 |
| | | | 62-4 | 17.2.4.2, 17.2.5.6, 17.2.6.1, 17.2.6.2 |
| | | | 62-5 | 5.3 |
| | | | 62-6 | 8.3 |
| | | | 62-7 | 17.2.2, 17.2.4.4 |
| | | | 62-8 | 17.2.2, 17.2.4.4 |
| | | | 62-9 | 6.2.3, 7.1.2 |
| | | | 62-10 | 5.3 |
| | | | 62-11 | 16.3 |
| 63 | Patricia Wormington | | 63-1 | 17.2.1, 17.2.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 63-2 | 17.2.2, 17.2.8, 17.2.11 |
| | | | 63-3 | 17.2.7.3 |
| | | | 63-4 | 17.2.5.3 |
| | | | 63-5 | 17.2.2, 17.2.3, 17.2.4.2 |
| 64 | Quincy Pulblic Hearing | | 64-1 | 7.1.2 |
| | | | 64-2 | 10.2 |
| | | | 64-3 | 8.3 |
| | | | 64-4 | 7.1.2 |
| | | | 64-5 | 7.1.2 |
| | | | 64-6 | 7.1.2 |
| | | | 64-7 | 7.1.2, 13.3 |
| | | | 64-8 | 7.1.2 |
| | | | 64-9 | 12.3 |
| | | | 64-10 | 4.3 |
| | | | 64-11 | 4.3 |
| | | | 64-12 | 17.2.8, 17.2.11 |
| | | | 64-13 | 5.3 |
| | | | 64-14 | 7.2.3 |
| | | | 64-15 | 11.3 |
| | | | 64-16 | 7.2.3 |
| | | | 64-17 | 11.3 |
| | | | 64-18 | 7.2.3 |
| | | | 64-19 | 6.1.3 |
| | | | 64-20 | 6.3.3 |
| | | | 64-21 | 7.1.2, 7.2.3 |
| | | | 64-22 | 7.1.2 |
| | | | 64-23 | 7.1.2 |
| | | | 64-24 | 17.2.2 |
| | | | 64-25 | 17.2.3 |
| | | | 64-26 | 17.2.3 |
| | | | 64-27 | 13.3 |
| | | | 64-28 | 13.3 |
| | | | 64-29 | 7.1.2 |
| | | | 64-30 | 15.3 |
| | | | 64-31 | 7.2.3 |
| | | | 64-32 | 7.2.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 64-33 | 10.2 |
| | | | 64-34 | 11.3 |
| | | | 64-35 | 12.3 |
| | | | 64-36 | 17.2.3, 17.2.4.1, 17.2.4.2, 17.2.4.3, 17.2.5.1, 17.2.6.1, 17.2.6.2, 17.2.10.1 |
| | | | 64-37 | 12.3 |
| 65 | Sacramento Public Hearing | | 65-1 | 16.3 |
| | | | 65-2 | 17.2.5.3, 17.2.7.3 |
| | | | 65-3 | 11.3 |
| | | | 65-4 | 4.3 |
| | | | 65-5 | 7.2.3, 13.3 |
| | | | 65-6 | 12.3 |
| | | | 65-7 | 11.3 |
| | | | 65-8 | 5.3 |
| | | | 65-9 | 17.2.3 |
| | | | 65-10 | 17.2.5.8, 17.2.11 |
| | | | 65-11 | 17.2.8, 17.2.11 |
| | | | 65-12 | 7.2.3, 15.3 |
| | | | 65-13 | 17.2.6.1 |
| | | | 65-14 | 12.3 |
| | | | 65-15 | 11.3 |
| | | | 65-16 | 17.2.3 |
| | | | 65-17 | 17.2.3 |
| | | | 65-18 | 13.3 |
| | | | 65-19 | 13.3 |
| | | | 65-20 | 17.2.5.3 |
| | | | 65-21 | 17.2.8 |
| | | | 65-22 | 7.2.3, 13.3, 14.3 |
| 66 | Ventura Public Hearing | | 66-1 | 17.2.3 |
| | | | 66-2 | 17.2.3, 17.2.5.8, 17.2.6.1, 17.2.7.3, 17.2.8, 17.2.11 |
| | | | 66-3 | 9.3, 14.3 |
| | | | 66-4 | 17.2.3 |
| | | | 66-5 | 7.2.3 |
| | | | 66-6 | 17.2.5.3, 17.2.6.1, 17.2.6.4, 17.2.7.3 |
| | | | 66-7 | 17.2.13 |
| | | | 66-8 | 17.2.4.1 |
| | | | 66-9 | 17.2.4.1 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 66-10 | 17.2.3, 17.2.6.4 |
| | | | 66-11 | 17.2.8, 17.2.11 |
| | | | 66-12 | 17.2.6.1, 17.2.6.2, 17.2.10.3 |
| | | | 66-13 | 17.2.3, 17.2.8. 17.2.11 |
| | | | 66-14 | 17.2.2, 17.2.4.4 |
| | | | 66-15 | 17.2.3 |
| | | | 66-16 | 4.3, 15.3 |
| | | | 66-17 | 17.2.3, 17.2.4.3, 17.2.6.4 |
| | | | 66-18 | 17.2.3 |
| | | | 66-19 | 17.2.12 |
| | | | 66-20 | 17.2.5.5, 17.2.5.8, 17.2.6.4 |
| | | | 66-21 | 12.3 |
| | | | 66-22 | 17.2.2 |
| | | | 66-23 | 17.2.5.8, 17.2.7.3, 17.2.10.2, 17.2.10.3 |
| | | | 66-24 | 8.3 |
| | | | 66-25 | 14.3 |
| 67 | Bakersfield Public Hearing | | 67-1 | 13.3 |
| | | | 67-2 | 16.3 |
| | | | 67-3 | 13.3, 17.2.5.8 |
| | | | 67-4 | 7.2.3, 15.3 |
| | | | 67-5 | 11.3 |
| | | | 67-6 | 16.3, 17.2.5.8 |
| | | | 67-7 | 17.2.8, 17.2.11 |
| | | | 67-8 | 17.2.7.3 |
| | | | 67-9 | 17.2.8, 17.2.11 |
| | | | 67-10 | 17.2.2, 17.2.7.3 |
| | | | 67-11 | 17.2.2, 17.2.3, 17.2.7.3, 17.2.8, 17.2.11 |
| | | | 67-12 | 16.3 |
| | | | 67-13 | 17.2.1, 17.2.2 |
| | | | 67-14 | 17.2.3 |
| | | | 67-15 | 17.2.8, 17.2.11 |
| | | | 67-16 | 17.2.1, 17.2.5.4, 17.2.5.5, 17.2.5.6, 17.2.5.7, 17.2.5.8, 17.2.5.9, 17.2.7.1, 17.2.7.2 |
| | | | 67-17 | 17.2.4.1, 17.2.4.2, 17.2.5.4, 17.2.5.5, 17.2.8, |
| | | | 67-18 | 17.2.3, 17.2.5.5, 17.2.5.6, 17.2.7.3 |
| | | | 67-19 | 17.2.3, 17.2.5.10, 17.2.6.1, 17.2.6.2 |
| | | | 67-20 | 17.2.3 |

**FEIR TABLE 3-1**

**INDEX TO COMMENTS AND RESPONSES**

| Letter Number | Name | Agency / Affiliation | Commenter Code | Section or Subsection |
|---|---|---|---|---|
| | | | 67-21 | 17.2.1, 17.2.2, 17.2.3, 17.2.4.1, 17.2.5.2, 17.2.5.3, 17.2.6.3, 17.2.8, 17.2.11, 17.2.12 |
| | | | 67-22 | 16.3 |
| | | | 67-23 | 16.3 |
| | | | 67-24 | 17.2.3 |
| | | | 67-25 | 12.3 |
| | | | 67-26 | 17.2.2, 17.2.4.4 |
| | | | 67-27 | 4.3 |
| | | | 67-28 | 16.3 |
| | | | 67-29 | 17.2.2, 17.2.4.4 |
| | | | 67-30 | 17.2.2, 17.2.8, 17.2.9 |
| | | | 67-31 | 15.3 |
| | | | 67-32 | 17.2.2 |
| | | | 67-33 | 17.2.2 |
| | | | 67-34 | 16.3 |
| | | | 67-35 | 16.3 |
| | | | 67-36 | 16.3, 17.2.8, 17.2.9 |
| | | | 67-37 | 16.3 |
| | | | 67-38 | 16.3 |
| | | | 67-39 | 16.3 |

# 4. INTRODUCTION AND PROCESS

# 4. INTRODUCTION AND PROCESS

## 4.1 INTRODUCTION

The following responses address comments on the scope of what should be included in the DEIR and processes relating to the proposed project. Comments covered several primary issues including: the scope of the project, the nature of the decision-making process of the Department and the SWP contractors under CEQA; the scope of the EIR, the authority of the Department to enter into the Monterey Amendment or to transfer the KFE property; policy reasons for or against the Monterey Amendment or the transfer of the KFE property; the negotiation process for SWP amendments before and after the Monterey Amendment, including the closed nature of the process before; compliance with the decision in *PCL v. DWR;* questions about the project specific or programmatic nature of the DEIR, including the analysis of KWB Lands project. The master response is organized by the following subtopics:

4.2.1 Scope of the EIR
4.2.2 Process

Some of the comments received on the scope and process of the DEIR are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Section 4.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include references to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This Chapter addresses the following comments: 6-1, 6-3, 6-5, 6-20, 11-1, 14-2, 16-1, 16-17, 21-9, 26-10, 30-1, 30-2, 30-3, 30-4, 30-11, 30-15, 30-18, 30-19, 30-20, 30-31, 30-32, 30-33, 30-37, 30-54, 30-75, 30-76, 30-79, 30-81, 30-82, 30-87, 30-88, 30-135, 30-136, 30-137, 47-7, 64-10, 64-11, 65-4, 66-16, and 67-27.

## 4.2 MASTER RESPONSE

### Summary

Some comments received on the DEIR address environmental issues within the scope of the EIR, but also raise issues related to the Department's legal authority, policy reasons for and against the Monterey Amendment, and the KFE property transfer and related water policy actions and other issues unrelated to the project. Comments directed at the Department's legal authority, policy decisions, and the KFE property transfer are generally not comments relating to an environmental issue resulting from the proposed project. However, this EIR provides some information and background on some of these issues to ensure that the public and decision-makers have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated, and how they relate to the environmental issues discussed in the EIR.

The DEIR is responsive to the decision in *PCL v. DWR* and evidences an independent Department review. While the Department did not consider a substantially different proposed project or objectives, the Department did consider the proposed project in a different and more comprehensive manner. Some actions covered in the DEIR will not require any subsequent decision or action to implement. Others will be subject to additional CEQA review. This EIR discusses the environmental documentation that has been completed to date on the KWB Lands. The Department will review, as appropriate, any additional environmental documentation prepared by KCWA or other agencies. To the extent appropriate, later environmental documents may use information in this EIR to provide CEQA-required information.

### 4.2.1 Scope of the EIR

#### 4.2.1.1 Scope of the Proposed Project

Comments addressed in this subsection include: 16-17, 30-54, 30-75, 64-11, and 66-16.

Background

In 1994, the Department and a group of State Water Contractors negotiated a set of principles designed to modify the long-term SWP water supply contracts. This set of principles came to be known as the Monterey Agreement. An EIR on the Monterey Agreement was prepared by the Central Coast Water Agency, a joint powers agency composed of two water contractors, and certified in October 1995. In 1995 and 1996, following certification of the EIR, the Department and most of the SWP contractors incorporated most of the principles into a contract amendment which is known as the Monterey Amendment. In 1995, the EIR for the Monterey Agreement was subject to judicial challenge. Ultimately, the EIR was ordered decertified on the ground that the Department should have been the lead agency. In 2003, the parties to the litigation negotiated a settlement agreement whereby the Department committed to a process for including the plaintiffs and contractors in the development of a new EIR on the Monterey Amendment and agreed to certain additional elements (Settlement Agreement). The Monterey Amendment and the Settlement Agreement together comprise the proposed project. The Monterey Plus EIR is officially known as *An EIR on the Monterey Amendment to the State Water Projects (Including Kern Water Bank Transfer) and Associated Actions as Part of a Settlement Agreement (Monterey Plus).* See FEIR Chapter 3 on History and Background. As discussed below, most of the comments on the DEIR relate to the Monterey Amendment. Therefore, sometimes the terms Monterey Amendment and proposed project are used interchangeably in the master responses or responses to comments in this FEIR.

Proposed Project

Many of the comments show that there is confusion regarding the scope of the proposed project, particularly with regard to the Monterey Amendment. In order to respond to these comments, it is important to describe what the Monterey Amendment is and what it is not.

The Monterey Amendment amends the long-term water supply contracts between the Department and SWP contractors. The primary elements of the Monterey Amendment relate to arrangements between and among the contractors and the Department with regard to the SWP long-term water supply contracts. These include how SWP financing rates are restructured; how SWP water is allocated among contractors; how water supply management practices regarding water deliveries can be facilitated in conjunction with local supplies; and transfer of the KFE

property to the KCWA to be developed and used as a local groundwater storage facility. The Settlement Agreement provided for input to the EIR process and established other provisions, including ones relating to amendments to the long-term water supply contracts, preparation of a State Water Project Delivery Reliability Report, the KWB and establishment of a Plumas Water Forum. This EIR examines these project-generated changes and how they affect the environment.

The key elements of the proposed project are as follows.

### *Restructuring Rates*

The DEIR concludes that restructuring rates does not have an effect on the environment. Under the Monterey Amendment, contractors may receive a reduction to their charges if the revenues exceed the payments for general obligation bonds, revenue bonds, maintenance, operation, and replacement costs, reimbursement of the California Water Fund, and deposits into the State Water Facilities Capital Account. See DEIR Section 4.4.5 (pages 4-8 to 4-9) for a description of changes with regard to restructured rates, and pages 6-15 to 6-16 for a discussion of how it was determined which provisions of the Monterey Amendment might have an effect on the environment. See also Response to Comment 30-54 for clarification of why restructuring rates does not have an effect on the environment.

### *Changes in Allocation of Water and Facilitation of Water Management Practices*

The changes in allocation of water (including altered water allocation procedures, transfers of Table A amounts and retirement of Table A amounts) did not result in any direct significant impacts but may result in potentially significant indirect impacts resulting from increased growth at the local level. The facilitation of water supply management practices (including storage of SWP water outside contractor's service areas, borrowing of water by contractors from Castaic Lake and Lake Perris, and the Turnback Pool) could potentially have environmental impacts and they are analyzed in Chapter 7 of the DEIR. Impact analyses included potential exports and deliveries of both Table A and Article 21 water. However, it is important to note that implementation of all of these procedures or practices take place within existing environmental and regulatory constraints and are dependent upon whether water is available to be exported for SWP use. See FEIR Chapter 13 on Article 18, Chapter 14 on Article 21 and Chapter 15 on Water Supply Management Practices.

The Department had the authority to carry out some of the actions included in the Monterey Amendment prior to the Amendment and, in fact, had approved some of them on a case by case basis. Practices approved prior to the Amendment include transfers and storage outside service area and the Department was required by statute to transport water for others in SWP facilities when capacity is available to do so. See DEIR Section 2.5.2 for water transactions that the Department had approved prior to the Monterey Amendment. To the extent that the authority existed before the Monterey Amendment, the Amendment did not "enable" or "allow" these actions to occur. The Amendment facilitated these actions and, in some cases, established criteria for decisions. The DEIR environmental analysis, however, assumed that all of the impacts from these actions (except transporting non-project water) were new impacts attributable to the Monterey Amendment. This assumption provides a worst case analysis that would show the maximum impacts.

### *Transfer of KFE Property*

The transfer of the ownership of the KFE property was also examined for potential environmental impacts in Chapter 7. As required by the Settlement Agreement, the DEIR also included an independent study by the Department regarding the impacts related to the transfer, development, and operation of the KWB in light of the Kern Environmental Permits. See further discussion in FEIR Chapter 16.

### *Settlement Agreement*

The Settlement Agreement is part of the proposed project analyzed in the DEIR. With the exception of the projects funded by payments to Plumas County associated primarily with installation of watershed management projects, there are no potential adverse environmental impacts anticipated as a result of the Settlement Agreement. These impacts are discussed in Chapter 7 of the DEIR. There were no comments regarding these impacts.

## Objectives

The underlying fundamental purpose of the Monterey Agreement and the Monterey Amendment is to resolve conflicts and disputes between and among the urban and agricultural SWP contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. One key objective of the Monterey Agreement and the Monterey Amendment is to facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies. The primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits. See FEIR Subsection 5.2.1.2.

The terms of the long-term water supply contracts, including the Monterey Amendment, do not determine how the Department will operate the SWP facilities to meet regulatory requirements, but determine how SWP supplies and costs are allocated among the contractors. The terms may also determine how exported water is managed and where SWP contractors might store SWP water (if it is to be stored) if they have been allocated sufficient SWP water to store after meeting current needs. To the degree that hydrologic and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. The Monterey Amendment cannot and does not change hydrologic conditions or regulatory requirements in effect at the time of export, including applicable permits and constraints to protect water quality and listed fish species. See FEIR Subsection 5.2.1.2.

## Impacts

The DEIR states on page 6-15 that a provision, or article, in the Monterey Amendment that could cause changes in the way SWP water is stored or conveyed was assumed to have the potential to produce a change in SWP or contractor operations. If a provision could alter operations then it was assumed to have potentially significant environmental impacts and was analyzed in detail in Chapter 7. For example, Article 56, which enables storage of SWP water outside contractors' service areas, may alter SWP operations and therefore was assumed to have potentially significant impacts. If a provision would not alter operations, the provision was assumed to have no physical consequences or environmental impacts. For example, Article 1(kk), which defines "non-SWP water," is purely administrative with no physical manifestation in

the environment and therefore determined to have no significant impacts. Table 6-3 in the DEIR and the accompanying text on page 6-15 set forth the different provisions and provide an explanation of the distinction. The DEIR determined that the contractual changes with the greatest potential for effects on SWP operations are those that altered water allocation procedures in times of shortage and surplus, enabled transfers and retirements of Table A amounts, and provide for the use of various water supply management practices.

The DEIR found that the proposed project had no significant past (1996 to 2003) impacts that were not mitigated to a level of less than significant. With respect to future impacts, the DEIR found that the water supply management practices, provided for in the Monterey Amendment, and the watershed improvement program for Plumas County, provided for in the Settlement Agreement, may have potentially significant impacts. The watershed improvement program is the only element of the Settlement Agreement determined to have potentially significant impacts. These impacts are considered relatively minor and no comments were received regarding these impacts. The water supply management practices may lead to potentially significant and unavoidable impacts on terrestrial resources as a result of the development of groundwater banks in Kern County other than in the KWB Lands and flexible storage provisions. They may also lead to potentially significant mitigable impacts on Delta fisheries resources. As discussed in this FEIR in Subsection 14.2.5.2, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta and have no impact on Delta fisheries resources. See DEIR, pages ES-4 to ES-5. See also FEIR Subsection 4.2.1.1.

### 4.2.1.2 Decisions to be made by the Lead and Responsible Agencies

Comments addressed in this subsection include: 21-9, 26-10, 30-1, 30-2, 30-18, 30-32, 30-33, 30-37, 30-88, 64-11, and 65-4.

Several comments raise questions about interim and final operation of the Monterey Amendment and refer to the Superior Court's order on remand in *PCL v. DWR.* Other comments state that the DEIR does not adequately explain the "uses" of the EIR or ask the Department to specify how it will carry out its decision-making under CEQA. A number of questions have also been raised regarding the Department's authority to continue to act under the Monterey Amendment, including whether it would need to re-execute the Amendment, or regarding the Department's authority to decide not to act under the Monterey Amendment.

The EIR process is specifically designed to objectively evaluate and disclose potentially significant adverse impacts of a proposed project, and to identify mitigation measures or alternatives that eliminate or substantially lessen a project's significant adverse impacts. An EIR must also identify those adverse impacts that remain significant after mitigation. As discussed in FEIR Subsection 4.2.1.3, the courts have stated that the EIR must describe the significance of each environmental issue that is raised by comments. It is not required to discuss all the economic, legal, social, and technological factors, or other benefits of the proposed project. While issues raised are issues the Department must determine before it makes a decision and issues an Notice of Determination, they are not issues the Department must resolve in the EIR.

The court in *PCL v. DWR* found that the EIR prepared on the Monterey Agreement was inadequate. The Monterey Amendment incorporated the principles that were in the Monterey Agreement and it, along with the Settlement Agreement, is the proposed project of this EIR. The Department has prepared a DEIR on the proposed project which has been circulated, as required by CEQA, for public review. The DEIR included, as part of the proposed project,

continued operation of the SWP under the Monterey Amendment. This FEIR responds to the comments received on the draft and clarifies and amplifies the information in the DEIR. The DEIR states on page 1-1 that this EIR will be used by the Department, as lead agency, and the contractors, as responsible agencies, to evaluate the environmental impacts of the proposed project and to decide whether to continue operating under the proposed project or to decide whether to implement one of the alternatives to the proposed project. The DEIR states that, "[A]s part of its overall consideration, the Department will also review legal economic and social impacts. Once the EIR is complete, the Department will consider all options available to it under the law. Upon completion and certification of this EIR, the Department will make written findings and decisions and file a Notice of Determination." In making its decision, the Department will consider the opinion in *PCL v. DWR*, the Superior Court's Order on remand in *PCL v. DWR*, and other appropriate legal sources.

### 4.2.1.3 Scope of the EIR

Comments addressed in this subsection include: 6-1, 6-3, 6-5, 30-3, 30-4, 30-18, 30-31, 30-32, 30-33, 30-81, 30-82, 30-83, 30-87, 30-88, 30-135, 30-136, 30-137, and 64-11.

CEQA requires the written response to comments to "describe the significance of each environmental issue that is raised by commenters" [PRC 21091(d)(2)(B)]. The major issues raised when the lead agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail, giving reasons why specific comments and suggestions were not accepted (*Twain Harte*, p. 679 citing *Cleary* and *Kern*). Based on the law and cases, the approach of the Department in this EIR is to answer fully and in detail comments that raise "environmental issues" regarding the significance of impacts potentially caused by the proposed project and appropriate mitigation measures and/or alternatives. The environmental impacts of the proposed project, including the Monterey Amendment, the transfer of the KFE property and the Settlement Agreement, were discussed and analyzed in the DEIR and are clarified and amplified by this FEIR.

A number of comments raise issues that might not normally be required to be discussed in the EIR or issues that are not related to CEQA. For example, Comments 30-31 and 30-32 discuss the history of the SWP in some detail and suggest that the Monterey Amendment changes the state long-term water supply contracts in a substantial manner that is inconsistent with the original intentions of the Legislature and the voters, and ask the Department to indicate the source of the authority of the Department and the contractors to enter into the Amendment. Comment 6-1 states that the EIR should "thoroughly discuss the feasibility, i.e. the legality, of the various components of the proposed project and all of the alternatives where, as here, such legality is not obvious and called into question." Other comments question the legality of the transfer of the KFE property or state that the DEIR does not properly describe the validation action regarding this transfer. A number of other comments are directed to whether the decision-makers should have signed the Monterey Amendment and transferred the KFE property or whether they should have made some other decision. There are also comments that address various related water policy actions and discussions taking place in legislative and administrative arenas.

Some of these comments are on social, economic and legal issues unrelated to the proposed project such as whether private corporations should be allowed to have water rights or whether owners of water rights should be allowed to sell water or water rights. Other subjects, such as legal authority and policy reasons for and against the Monterey Amendment or the KFE property transfer and related water policy actions, are related to the proposed project but generally are not environmental issues resulting from the proposed project and are outside the scope of the

EIR. However, this EIR provides some information and background on some of these issues so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. To the extent that these issues are related to potential physical changes in the environment, they have already been included in the EIR. See FEIR Subsection 4.2.1.3.

Some of the information relating to these issues may also be included, as appropriate, in required CEQA documents such as the findings on impacts, mitigation measures and alternatives and any statement of overriding considerations. Some of the information relating to these issues may be appropriate to bring before the Director in the context of his decision of whether to continue to operate under the Monterey Amendment and the Settlement Agreement, or in the context of other decisions he makes as the Director of the Department of Water Resources. The comments received are part of the permanent record for this proposed project and will be forwarded, as appropriate, to the Director for his consideration. See FEIR Subsection 4.2.1.3.

Some comments state that the DEIR fails to explain the reasons why Article 18(b) was deleted and why various changes to allocation of Table A and Article 21 water were changed. The comments suggest that without full disclosure of the underlying basis and rationale for such changes neither the public nor decision-makers have been provided with the information necessary to fully understand the potential ramifications of such changes, environmentally or otherwise. The Department believes that the DEIR adequately discloses the underlying basis and rationale for the project. For CEQA purposes, what is critical is whether the proposed project would have a potentially significant impact on the environment. There may be many reasons underlying a decision to carry out an activity and different decision-makers may have different reasons for making their decisions. CEQA requires full disclosure of the environmental impacts of carrying out the activity regardless of the reasons underlying the decision. To the extent the underlying basis and rationale are important for purposes of this EIR they are incorporated into the Project Objectives which are found on pages 4-1 through 4-2 of the DEIR. The background necessary to understand the proposed project and the objectives is also discussed in DEIR Chapters 2, 3, and 4. In addition, in some cases, additional information has been added to some of the subsections of this FEIR for additional amplification or clarification. See for example, FEIR Chapter 13, Subsection 13.2.1.

## 4.2.2 Process

### 4.2.2.1 Negotiation Process Before and After Monterey

Comments addressed in this subsection include: 30-1 and 47-7.

Some comments were critical of the process that led to the Monterey Agreement and urge the Department to follow a more open process with the decision-making resulting from this EIR. Comments relating to the process followed or decision-making are generally not comments relating to an environmental issue resulting from the proposed project. However, this EIR provides some information and background on these issues so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR.

CEQA establishes a process that provides for public input at several points. The main points are the initial scoping and the DEIR. Additional opportunities are provided for responsible and

trustee agencies. CEQA does not require public participation in the decision-making process. Whether or not public participation is required during an agency's decision-making process depends on the requirements of laws, regulations, and other rules relating to that agency's own process. Some agencies, such as boards and commissions and most local agencies are required to conduct their decision-making in public. Others, such as departments like the Department of Water Resources, have no similar requirements.

The negotiations that led to the Monterey Agreement were conducted without public input. While some of the comments are critical of this process, it was not unusual and it was not illegal. Up until that time, discussions relating to the long-term SWP water supply contract amendments had never included public involvement. This was one of the issues that concerned the plaintiffs in *PCL v. DWR* and was one of the subjects of the Settlement Agreement which provides for public negotiations of permanent transfers of Table A amounts (Attachment C to the Settlement Agreement), and principles for public participation in project-wide contract amendments and contract amendments relating to Table A transfers between existing SWP contractors (Attachment D to the Settlement Agreement). Public Notices of Attachment C permanent Table A transfers have been published on the Department's website at the time of negotiations. Several transfers have occurred and the public has commented on some of the transfers. So far no Attachment D negotiations have occurred, but if they were, the Department also plans to notice them on its website.

### 4.2.2.2 Compliance with *PCL v. DWR*

Comments addressed in this subsection include: 16-1, 30-1, 30-3, 30-4, 30-15, 30-19, 30-20, 30-76, 30-79, 30-81, 30-83, 30-87, 30-135, 30-136, 30-137, and 64-10.

The court in *PCL v. DWR* (page 920) found that the EIR on the Monterey Agreement was improperly prepared by a local agency and that the Department must prepare an entirely new EIR on the project as a whole. It did not (page 920) rule on issues other than the failure to adequately discuss the elimination of Article 18(b) "because DWR, with its expertise on the statewide impacts of water transfers, may choose to address those issues in a completely different and more comprehensive manner." And again (page 907), "[S]imilarly, DWR has a statewide perspective and expertise. The allocation of water to one part of the state has potential implications for distribution throughout the system….[it] is the "logical choice for [the] lead agency" because it has principal responsibility for implementation of an agreement that substantially restructures distribution of water throughout the state." *PCL v. DWR* (page 904) recognized that the "lead agency must independently participate, review, analyze and discuss the alternatives in good faith. … Moreover, the agency's opinion on matters within its expertise is of particular value."

Some comments state that the Department is not carrying out its lead agency duties as recognized in *PCL v. DWR* and that the DEIR attempts to explain away, rather than directly address the key holdings in *PCL v. DWR*. Other comments state that fundamental flaws in the DEIR undermine the Department's fulfillment of these duties and that the DEIR falls short of what CEQA and the Settlement Agreement require.

#### 4.2.2.2.1 Different Project or Project Objectives

Some of the comments cite to the language above as support for a position that the EIR should look at a completely different and more comprehensive project or different and more comprehensive project objectives - such as looking at ways of supplying a portion of available SWP water to the environment, or looking at ways to reduce the demand for SWP water by the

contractors, or using the KWB Lands for environmental purposes. *PCL v. DWR* did not say that the Department must address completely different and more comprehensive "changes" to the long-term SWP water supply contracts thereby creating a new proposed project. While the Department and the SWP contractors could have addressed different and more comprehensive changes to the SWP water supply contracts; neither CEQA, the court in *PCL v. DWR,* the Settlement Agreement, nor the Superior Court's Order on remand, requires them to do so. This issue is discussed more fully in FEIR Chapter 5, Subsections 5.1.2.1.2 and 5.1.2.3.1.

#### 4.2.2.2.2 Different and Comprehensive Manner

The Court in *PCL v. DWR* stated that the Department "may" choose to address the issues raised in a completely different and more comprehensive manner. It did not say that the Department "must" address the issues differently. However, the Department has chosen to address the issues in a different and more comprehensive manner. See further discussion on this issue in FEIR Chapter 5, Subsection 5.1.2.2.

#### 4.2.2.2.3 Independent Department Preparation and EIR Committee

The Department has independently prepared, reviewed, analyzed and discussed all the issues raised in the EIR on the Monterey Agreement and other issues raised in the scoping meetings. In addition, the EIR has benefited from the advice and recommendations of the EIR Committee required by the Settlement Agreement. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. Over 24 meetings were held, including a number of meetings to discuss input into the CALSIM II modeling to make it more useful for the DEIR. Both the contractor and the plaintiff representatives had the opportunity to provide input into the scope of the DEIR. Many changes were a result of input from the EIR Committee participants. See FEIR Subsection 6.3.2.2 for input from the EIR Committee on modeling, and Subsection 5.1.2.2 for changes made in the EIR.

### 4.2.2.3 Use of the EIR for Project Specific and Programmatic Components

Comments addressed in this subsection include: 6-20, 11-1, 14-2, 30-1, 30-82, 65-4, and 67-27.

#### 4.2.2.3.1 General

Several comments ask that the EIR clarify which actions in the EIR are covered completely by the EIR.

Page 1-1 of the DEIR states the "EIR serves as both a Project EIR and a Program EIR under CEQA." Actions that the DEIR described on page 1-1 as not requiring any subsequent decision or action to implement include:

- Revisions to the methodology used to allocate water among SWP contractors;
- Permanent retirement of 45,000 acre feet of agricultural Table A amounts;
- Transfer of the property known as the "KFE property";
- Changes in the manner in which Castaic Lake and Lake Perris may be operated (flexible storage); and
- Certain water supply management practices.

Of the water supply management practices, flexible storage and the turnback pool are covered in their entirety by this EIR and need no further CEQA coverage. Out-of-service-area storage would not require additional CEQA coverage for banking in facilities already covered by CEQA, such as continued banking in existing water banks by SWP contractors. However, banking in new water bank facilities would require the bank owner to provide CEQA coverage for the development and operation of the bank, and SWP contractors may need to comply with CEQA as part of approval of their banking activities. Certain short-term transfer activities may require CEQA coverage of the transfer, and the Department may rely on that CEQA coverage in approving conveyance in its facilities pursuant to Article 55.

As described on page 1-2, other project components may need additional environmental documentation. The appropriate lead agency will make that determination when it is ready to approach the CEQA decision-maker process. To the extent appropriate, later environmental documents may use information in this EIR to provide CEQA-required information. The DEIR gave additional permanent transfers of Table A water and development of specific contractor out-of-service area programs as examples of actions that will continue to be the subject of project-specific environmental documentation of local impacts. The DEIR also stated that neither the Department nor local water supply agencies make local decisions regarding growth and where it will occur. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. Where appropriate, they must consider mitigation measures, alternatives, and overriding considerations.

#### 4.2.2.3.2 KWB Lands as a Program or Project

Comment 14-2 points out that the Settlement Agreement requires an independent assessment of certain specified KWB Lands operations and asks whether the DEIR is a project EIR or a program EIR with respect to past, present and/potential future use and operation of the KWB Lands.

As discussed on page 4-12 of the DEIR, the Settlement Agreement required the Department to include, in addition to the CEQA analysis, an independent study of the impacts of the transfer, development, and operation of the KWB Lands “in light of the Kern environmental permits that have been issued” (federal ESA permits issued for the KWB). This study is included in Appendix E of the DEIR. The analysis concluded that the “KWB is operating as intended and within the confines of the HCP/NCCP.” See Appendix E, page 63. The development of the KWB Lands by the KWBA is discussed in Section V.C. in Appendix E of the DEIR.

As noted in DEIR Section 5.5, the KWB Lands were developed as a locally-owned facility by KWBA on land transferred from the Department as part of the Monterey Amendment. As noted in DEIR Subsection 6.4.1, the KWB Lands represent new south of delta storage for KCWA that would not be available under the baseline scenario and thus could potentially increase deliveries and Delta diversions. The effects of the transfer and use of the KWB Lands are examined throughout Chapter 7, including impacts on fisheries and terrestrial species. See also discussion in FEIR Chapter 16, Subsections 16.2.5 and 16.2.7.

After the transfer, the KWBA prepared an addendum to the previously certified 1995 Monterey Agreement EIR. In the 1995 Monterey Agreement EIR, three alternatives for the development of the KWB Lands (in addition to the No Project Alternative) were identified and evaluated. The KWBA concluded in its *Initial Study and Addendum to Monterey EIR of the Kern Water Bank Authority, Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan*, dated June 3, 1997 that the land uses of the project were within the land use components of the three scenarios evaluated in the 1995 Monterey Agreement EIR. The KWBA prepared *Findings*

*and Mitigation Measures, Implementation of the Kern Water Bank - Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan* and filed a Notice of Determination with the State Clearinghouse on June 5, 1997 (SCH #1997107342). A Final Environmental Assessment for the issuance of an incidental take permit under Section 10(a)(1)(B) of the Endangered Species Act for the KWB Lands was prepared by the USFWS and dated October 2, 1997. See discussion of history of the KWB Lands in FEIR Chapter 16, Subsection 16.2.1. The Addendum was not challenged following the notice and the statutory time for challenging it has passed. The Settlement Agreement provided that the Parties to the Agreement recognized that the Addendum had been completed and agreed not to challenge it in any manner. The KWBA also agreed that it would not rely on the Addendum for any new KWBA project to the extent that such reliance in based on data or analysis incorporated into the Addendum from the 1995 EIR.

Once the land was transferred, the KWBA, the owner of the KWB Lands, had an obligation to comply with CEQA for any changes in use of the property. The DEIR discussed the environmental documentation that has been completed to date for the transfer of the State-owned KFE property and after, as the locally-owned KWB Lands project, in DEIR Appendix E. The Department is not aware of any plans at this time to prepare any further environmental documentation concerning the locally-owned KWB Lands project. The Department will review, as appropriate, any additional environmental documentation prepared by KWBA or other agencies. To the extent appropriate, later environmental documents may use information in this EIR to provide CEQA-required information.

This EIR is not intended to cover additional environmental review, if necessary, including specific operating parameters of the locally-owned KWB Lands or a detailed analysis of how the water in the bank is stored or allocated. As discussed in FEIR Chapter 8, Subsection 8.2.2.2, even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities, local water resources, and local water use. Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Moreover, such an analysis would require decisions about water supply and use that traditionally have been made locally. The authorities of the local agencies and of the Department would need to be changed by legislation before the Department could exercise the suggested powers over local water service agency decisions. The Department believes local officials should continue this role. For further discussion of the KWB Lands see FEIR Chapter 16.

## 4.3 RESPONSES TO INDIVIDUAL COMMENTS

### Response to Comment 6-1

The comment states that the DEIR should consider the legal feasibility of the various components of the proposed project since the range of potential alternatives shall include those that could feasibly accomplish most of the basic objectives of the project. See FEIR Subsection 4.2.1.3. See also Response to Comment 6-1 in Chapters 5 and 11.

### Response to Comment 6-3

The comment states a concern that the elimination of Article 18(b) affects area of origin rights and states that eliminating the area of origin recognition and protection was contrary to existing law. See FEIR Subsection 4.2.1.3 on issues relating to legal authority. The elimination of

Article 18(b) did not affect area of origin rights. See Response to Comment 6-3 in FEIR Chapter 13 regarding area of origin demands.

### Response to Comment 6-5

The comment states that the DEIR should explain why the various changes to the Department's allocation of Table A water and Article 21 water pursuant to the project were ultimately sought by the Department and the contractors. See FEIR Subsection 4.2.1.3.

### Response to Comment 6-20

The comment states that the DEIR should describe all actions that are covered 100 percent by this EIR and mentions the various transfers of Table A amounts and other actions that will result in local impacts from growth inducement or otherwise. See Response to Comment 6-3 in FEIR Chapter 13 regarding area of origin demands.

### Response to Comment 11-1

The comment describes the background to the transfer of the KWB Lands to the KCWA. See FEIR Subsection 4.2.2.3.2. See also Response to Comment 11-1 in Chapter 16.

### Response to Comment 14-2

The comment states that it is the understanding of the comment, that the EIR stated on page ES-2 that the EIR is intended to cover the potential "environmental and economic effects" of the transfer and asks whether the DEIR is a project EIR or a program EIR with respect to past, present and/or future use and operation of the KWB Lands. If the latter, what additional CEQA review may be expected from the current owners prior to continuation of KWB operations. The statement referred to on page ES-2 describes a potential area of controversy or concern identified as part of the scoping process. The DEIR did not examine the economic effects of the transfer.

See FEIR Subsection 4.2.2.3.2 on KWB Lands as program or project. See also the Response to Comment 14-2 in FEIR Chapter 16.

### Response to Comment 16-1

The comment discusses the EIR committee. See FEIR Subsection 4.2.2.2.3. See also the Response to Comment 16-1 in FEIR Chapter 5 and Subsection 17.2.3.

### Response to Comment 16-17

The comment points out that some actions included in the Monterey Amendment could have been carried out prior to the implementation of the Amendment and that some provisions "facilitated" rather than "enabled" or "allowed" certain actions. See FEIR Subsections 4.2.1.1 and 15.2.1.

### Response to Comment 16-40

The comment requests that the reference to "water source" in the first paragraph on page 2-19 of the DEIR be revised to refer to "water export location." The second to the last sentence in the first paragraph on page 2-19 of the DEIR is revised to read as follows:

Under the transportation charge, the more distant contractors pay a higher charge than those located near the water ~~source~~ export location in the Sacramento-San Joaquin Delta. In addition to repayment by SWP water contractors, the federal government has paid for a portion of the facilities built by the SWP for flood control.

## Response to Comment 16-43

The comment requests that the reference to Appendix E in the second paragraph on page 4-9 of the DEIR be corrected to refer to Appendix D. The third sentence of the second paragraph on page 4-9 of the DEIR is revised to read as follows:

The complete Settlement Agreement is contained in Appendix ~~E~~D.

## Response to Comment 16-54

The comment requests that the summary description of Article 1(k) in Table 6-3 on page 6-16 of the DEIR be revised and that Note b also be revised. Table 6-3 on page 6-19 of the DEIR is revised to read as follows:

**TABLE 6-3**

**POTENTIAL EFFECTS OF MONTEREY AMENDMENT ON SWP OPERATIONS**

| Amended, Deleted, or Added Article | Summary | Potential Change in SWP or Contractor Operations | Notes |
|---|---|---|---|
| 1(d) | Definition change for "Contractor" | No | |
| 1(k) | Definition change for "Minimum Project Yield" ~~Reduces SWP's minimum project yield from 4.23 to 4.185 MAF/yr~~ | No | a |
| 1(hh) | Definition change for "Water System Facilities" | No | |
| 1(jj) | Definition added for "Interruptible water" | No | |
| 1(kk) | Definition added for "Non-SWP water" | No | |
| 1(ll) | Definition added for "Monterey Amendment" | No | |
| 4 | Revises options for continued service | No | |
| 7(a) | Revises procedures for requesting changes in Table A amounts | No | |
| 12 | Title change for Article 12 | No | |
| 12(a)(2) | Makes Department review and modification of contractor delivery schedules consistent with Article 18 | No | |
| 12(d) | Deleted | No | |
| 12(f) | Added to clarify priorities for delivery of water | Yes | |
| 14(a) | Expands conditions under which the Department can curtail deliveries to include outages or reductions in capability of facilities outside of State's control | No | |
| 14(b) | Clarifies conditions for subsequent delivery of water not delivered due to curtailments covered in 14(a) | No | |
| 16(a) | Reduces sum of maximum Table A amounts to 4.185 MAF to be consistent with 1(k) | Yes | |
| 18(a) | Revises allocation procedures in shortages | Yes | |
| 18(b) | Deletes provision for reducing Table A amounts when there is a threatened permanent water shortage as defined in provision | Yes | b |
| 18(d)(e) | Eliminates references to Article 18(b) | No | |
| 21(a) through (j) | Eliminates provisions for scheduled "surplus" water, renames "unscheduled water" as "interruptible water and sets terms for delivery of "interruptible water." Eliminates some restrictions on use of "surplus" water. | Yes | |
| 22(j) | Clarifies financial obligations with regards to "the conservation portion of the water system revenue bond financing costs" as they relate to new Article 51 | No | |

**TABLE 6-3**

**POTENTIAL EFFECTS OF MONTEREY AMENDMENT ON SWP OPERATIONS**

| Amended, Deleted, or Added Article | Summary | Potential Change in SWP or Contractor Operations | Notes |
|---|---|---|---|
| 24(b) | Refines definition of financial obligation with regards to aqueduct capital costs | No | |
| 24(g) | Clarifies financial obligations with regards to the "capital cost component of the Transportation Charge" as they relate to new Article 51 | No | |
| 25(d)(3) | Clarifies method used to allocate power costs | No | |
| 50(j) | Added to clarify the obligations related to bond financing under Article 50 and unaffected by new Article 51 | No | |
| 51 | Added to specify numerous financial adjustments | No | |
| 52 | Added to transfer state-owned land in the Kern Fan Element to KCWA | Yes | c |
| 53 | Added to allow for accelerated administrative approval of voluntary permanent transfer up to 130,000 AF from Agricultural Contractors. Also provides for retirement of 45,000 AF of Table A between KCWA and DRWD | Yes | |
| 54 | Added to allow flexible storage at Castaic Lake and Lake Perris | Yes | |
| 55 | Added to clarify process and charges associated with the transportation of non-SWP water for contractors | No | |
| 56 | Added to encourage cooperation among the contractors to develop groundwater storage programs and to govern storage of Project Water outside contractor service areas. Also established a process for contractors to sell their SWP water via a turnback pool | Yes | |

Notes:
a. Affects SWP as it relates to total Table A amounts in article 16(a).
b. Will analyze potential effects of invoking Article 18(b) in Court Ordered No Project Alternatives ~~1~~3 and ~~2~~4.
c. Virtually eliminates the possibility that a state-owned groundwater bank on the Kern Fan Element property would be developed as part of the SWP.

## Response to Comment 16-55

The comment requests that the first sentence of the last paragraph on page 6-17 of the DEIR be clarified to note that the Monterey Agreement provides the sellers' consent needed to enable the transfers to proceed. The first sentence of the last paragraph on page 6-17 is revised to read as follows:

> Between 1996 and 2003, 45,000 AF of Table A amount was permanently retired and 114,000 AF of Table A amount was transferred from agricultural to M&I contractors pursuant to the consents set forth in the Monterey Amendment.

## Response to Comment 16-56

The comment requests that the reference to the "Tulare Lake Basin Water District" in Table 6-4 on page 6-19 of the DEIR be revised to reflect the correct name of the District. Table 6-4 on page 6-19 of the DEIR is revised to read as follows:

> Tulare Lake Basin Water Storage ~~Service~~ District

## Response to Comment 16-57

The comment requests that the Table A transfer discussed in the first sentence of the second paragraph on page 6-22 of the DEIR be revised to reflect that the transfer is from agricultural to

M&I contractors. The first sentence of the second paragraph on page 6-22 of the DEIR is revised to read as follows:

> Several provisions of the Monterey Amendment affected allocations to individual contractors after 1995 but the provisions with the greatest effect were those that altered the water allocation method (Article 18(a)) and called for transfers of Table A amount from ~~M&I to~~ agricultural contractors to M&I contractors (Article 53). …

## Response to Comment 16-63

The comment requests that the second paragraph on page 6-65 of the DEIR be revised to read as follows:

> The Settlement Agreement alters how the Department administers the long-term water supply contracts and provides information to the public ~~on SWP operations~~ regarding current and projected SWP delivery reliability.

## Response to Comment 16-64

The comment requests that the second bullet on page 7-2 of the DEIR be revised to include the word "adverse." The second bullet on page 7-2 of the DEIR is revised to read as follows:

> **Less Than Significant Impact:** A project impact is considered less-than-significant when it does not reach the standard of significance and would therefore cause no substantial adverse change in the environment (no mitigation required).

## Response to Comment 21-9

The comment states that the language in the DEIR on page 1-1 that the Department will decide whether to continue operating under the proposed project obscures the purpose of the EIR and states that "DWR must make a new decision whether to approve implement aspects of the project, including the Monterey Amendments, the Settlement Agreement, and the transfer of the KFE; whether to approve and implement an alternative to the project and/or more substantial mitigation for the project; or whether to approve no project at all." See FEIR Subsection 4.2.1.2.

## Response to Comment 26-10

The comment asks DWR to decline to certify the DEIR and to reject the Monterey Amendment and the associated actions and to renegotiate the SWP contracts in light of the severe limitations on water deliveries in the future in hopes of providing enough water flowing through the Bay-Delta to protect the important natural biological resources that live therein. See FEIR Subsection 4.2.1.2 and Subsection 5.1.2.1.2 on the issue of broader objectives and Subsection 17.2.3.

## Response to Comment 30-1

The comment discusses the commenting agency's role in the *PCL v.* DWR litigation and its expectations with regard to the process leading to and the results of a new EIR on the Monterey Amendment and the Settlement Agreement. See FEIR Subsections 4.2.1.2 and 4.2.2.1 through 4.2.2.3. See also FEIR Subsection 5.1.2.1.2.

### Response to Comment 30-2

The comment raises issues relating to the nature of the Superior Court's Order on remand and the decision that the Department will make upon completion of the EIR. See FEIR Subsections 4.2.1.2 and 4.2.1.3.

### Response to Comment 30-3

The comment discusses the role of the EIR Committee and states that the DEIR falls short of what CEQA requires from the DWR. See FEIR Subsections 4.2.1.3 and 4.2.2.2.

### Response to Comment 30-4

The comment states that the EIR is not adequate under the *PCL v. DWR* decision, including the clear duty to analyze and disclose the consequences of implementing pre-Monterey Article 18(b). See FEIR Subsections 4.2.1.3 and 4.2.2.2 for general discussion of duties under CEQA and *PCL v. DWR*. See Response to Comment 30-4 in FEIR Chapters 9 and 13.

### Response to Comment 30-11

The comment states that the DEIR fails to address the environmental consequences of the Monterey Amendment's financial restructuring of the SWP. See Response to Comment 30-54.

### Response to Comment 30-15

The comment states that the EIR must directly address the key holding of *PCL v. DWR*, especially with regard to the court's statement that the Department should be lead agency for the EIR because of it "statewide perspective and expertise." See FEIR Subsections 4.2.2.2 and 5.2.2.2.

### Response to Comment 30-18

The comment states that the court of appeal found that the plaintiffs in *PCL v. DWR* had properly initiated a proceeding to question the substantive validity of the Monterey Amendment, including the transfer of the Kern Water Bank. See FEIR Subsections 4.2.1.2 and 4.2.1.3. See also Response to Comment 30-18 in FEIR Chapter 16.

### Response to Comment 30-19

The comment states that the Department must prepare an entirely new EIR as the lead agency addressing the project as a whole, pointing out that the court did not hypothesize on the remaining issues because the Department "may choose to address these issues in a completely different and more comprehensive manner." See FEIR Subsection 4.2.2.2. See also Response to Comment 30-19 in FEIR Chapter 5.

### Response to Comment 30-20

The comment states generally that fundamental flaws in the DEIR undermine the Department's fulfillment of its lead agency duties as recognized in *PCL v. DWR* and, in particular, that the DEIR obscures project impacts by presenting no project alternatives that include components of the project and fails to adequately distinguish the project from continued current conditions.

See FEIR Subsection 4.2.2.2. See also FEIR Chapter 11 on alternatives, especially Response to Comment 30-21.

### Response to Comment 30-31

The comment discusses some of the history and background regarding the authorization of the SWP and provides its interpretation of what that authorization means. See FEIR Subsection 4.2.1.3. See also Response to Comment 30-31 in FEIR Chapter 5 on whether changes to the Monterey Amendment are fundamental.

### Response to Comment 30-32

The comment states that key features of the Monterey Amendment differ sharply from the central tenets of the SWP contracts as originally framed, approved, and validated by the voters, shifting a substantial degree of control from the state to the contractors. It also states the comment's opinion that the Monterey Amendments are proceeding under the authority of the interim order under Public Resources Code Section 21168.9 and says the DEIR should identify the source of authority for the proposed project to become permanent without the approval of the Legislature or the voters of California. See FEIR Subsections 4.2.1.2 and 4.2.1.3. See also Response to Comment 30-32 in FEIR Chapter 5.

### Response to Comment 30-33

The comment raises issues relating to the nature of the decision that the Department will make upon completion of the EIR. It states that the phrase in the DEIR (on page 1-1) that DWR, as lead agency, and the contractors, as responsible agencies, will use the EIR to "decide whether to *continue* [italics added] operating under the proposed project…or to decide to implement one of the alternatives to the proposed project" is ambiguous and discusses its position that the Department must approve and execute the Monterey Amendment and the Settlement Agreement if it wishes to continue operating under them. See FEIR Subsections 4.2.1.2 and 4.2.1.3.

### Response to Comment 30-37

The comment states that Settlement Agreement allows the Monterey Amendment to continue on an interim basis. See FEIR Subsection 4.2.1.2. See also Response to Comment 30-37 in FEIR Chapter 16.

### Response to Comment 30-54

The comment claims that the DEIR does not analyze the environmental consequences of Article 51. Section 4.4.5 of the DEIR discusses the restructuring of the contractor rates pursuant to Article 51 of the Monterey Amendment. As noted on page 4-8, "contractors receive a reduction to their charges if the revenues exceed the payments for general obligation bonds, revenue bonds, maintenance, operation, and replacement costs, reimbursement of the California Water Fund, and deposits into the State Water Facilities Capital Account."

If an article added or amended by the Monterey Amendment was found to change the way in which water is stored or conveyed, it was assumed that it could have the potential to produce a change in SWP or contractor operations, which might in turn have environmental effects. If it did not produce an operational change, it was not analyzed for environmental impacts. See DEIR page 6-15. The DEIR found that Article 51 did not have an effect on the SWP or

contractor operations and therefore it was not analyzed for environmental effects. See DEIR Table 6-3.

The comment says the EIR must analyze the relationship between Articles 18 and 51 and must compare the project to the no-project scenario in which Table A amounts are reduced without Article 51 rebates. The DEIR includes two no-project analyses in which Table A amounts are reduced and two no project analyses in which Table A amounts remain the same. Article 51 would not apply to any of the no project alternatives.

The comment says that Article 51 changes the way that the Department address revenues exceeding the cost of the revenue system and says that the revenue stream returned to the contractors under Article 51 is enormous over the life of the project contracts. The comment is correct that Article 51 changes the way revenues exceeding costs are treated. It is part of a larger change that created a General Operating Account and a State Water Facilities Capital Account and provided a reduction in charges if the revenues exceeded certain specified costs. For agricultural contractors, the amount of the reduction in charges is deposited into a trust fund to help them in years when they receive less than their requested annual Table A amounts for that year. For M&I contractors, it means that they pay less money to the Department than they did before the Monterey Amendment.

The comment states that, although CEQA does not require analysis of purely economic or social changes, *San Franciscans Upholding the Downtown Plan* requires analysis of environmental impacts that can be traced to such changes. The comment says the EIR must also evaluate the environmental consequences of Article 51's effect on water rates, and consider the financial adjustments made in Article 51 when making its assessment of project alternatives and mitigation. In *San Franciscans Upholding the Downtown Plan,* the appellate court found that the social inconvenience of having to hunt for scarce parking spaces is not an environmental impact but that the secondary effect of scarce parking on traffic and air quality is an environmental impact. The court stated that under CEQA, a project's social impacts need not be treated as significant impacts on the environment. An EIR need only address the *secondary physical* impacts that could be triggered by a social impact.

The DEIR does not include an analysis of the environmental impacts caused by Article 51 either in the resource impact analyses or in the cumulative impact analysis because it is highly speculative to try to determine how the economic change would lead to a physical or environmental change. The Department cannot trace where, how, and when the funds not given to the Department are distributed or used by each SWP contractor, and therefore the Department cannot identify or analyze physical changes or "environmental impacts that can be traced to such [economic or social] changes." The Department is not an auditing agency and it does not have the ability to track such returns. Each contractor is a unique public agency operating in its own political, economic, environmental and cultural setting. Its decisions are determined by its independently elected board of directors. Prediction of future decisions of a broad range of agencies and municipalities would be highly speculative. See CEQA Guidelines Sections 15144 and 15145. Article 51 rate reductions have been effect since 1996. As of 2009, the Department is not aware of the SWP contractors building new projects or making other physical changes that could be attributed to the net reductions in payments to the SWP. As public agencies, SWP contractors are subject to CEQA and will have to determine whether decisions to carry out projects with funds maintained because of the reduction in charges from Article 51 require environmental analysis and documentation. The comment also states that the *PCL v. DWR* court recognized the interrelationship between revised articles 18 and 51. As cited by the comment, the court discussed Article 51 as evidence that "fiscal and environmental pressures militate against completion of the project" (page 914, n.7). The *PCL v. DWR* court did

not give any opinion regarding whether it thought Article 51 did or did not have any environmental impacts.

See also FEIR Subsection 4.2.1.1 for further discussion of the scope of the EIR.

## Response to Comment 30-75

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-75 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in April 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a draft version of DEIR Table 6-3. See FEIR Subsection 4.2.1.1. The comment recommends that the draft table not be used as a template to eliminate items from CEQA analysis. The Department did not use the table as a template to eliminate items from the CEQA analysis.

The purpose of CEQA is to identify the potential environmental impacts of a proposed action and to reveal them to decision-makers and the public before a decision is made on whether to proceed with the proposed project. The Monterey Amendment is an amendment to the long-term water supply contracts between the Department and SWP contractors. It includes numerous changes to the long-term water supply contracts between the Department and the SWP contractors. It contains some provisions which could have potential environmental impacts and some which would not. Some provisions of the amendment alter the way the SWP is operated to deliver water to contractors. For example, Article 56 enables storage of SWP water outside contractors' service areas which affects how the SWP is operated. Altered SWP operations could have environmental impacts. Other provisions, for example Article 1(kk), which provides a definition of "non-SWP water" are purely administrative and have no physical manifestation in the environment. The Department needed to distinguish between the provisions that could affect the environment and those that would not and explain to the reader of the DEIR how this was done. DEIR Table 6-3 and the accompanying text provide the distinguishing mechanism and its explanation.

The comment is critical of the summary descriptions of the provisions of the Monterey Amendment in the draft table. The summary descriptions were improved and a complete version of a long-term water supply contract including the Monterey Amendments was included in an appendix to the DEIR (Appendix C). Table 4-1 of the DEIR identifies each change by article number and its relationship to the objectives set forth on pages 4-1 and 4-2. Table 6-3 of the DEIR describes the effect of the change on SWP operations. Pages 4-1 through 4-9 of the DEIR summarize the most significant changes to the water supply contracts. In addition, the earlier chapters of the DEIR provide information that explains the context of the Amendment changes and show what the changes do. Pages 2-1 through 2-18 of the DEIR describe the SWP including the portions of the water supply contract that are most relevant to the Monterey Amendment changes. DEIR pages 3-1 though 3-4 of the DEIR describe the history and background leading up to the Monterey Amendment. DEIR pages 6-1 through 6-66 describe in detail how the proposed project affects SWP and SWP contractor operations.

The comment objects to the fact that the table indicates whether a provision of the Monterey Amendment results in a change in SWP or contractor operations. The comment suggests that the table should indicate whether a provision could result in environmental impacts. The DEIR states on page 6-15 that if an article could cause changes in the way SWP water is stored or conveyed then it was assumed it could have the potential to produce a change in SWP or contractor operations, which might in turn have environmental effects. The Department examined each provision of the Monterey Amendment to see if it could result in a change in the way the SWP was operated or how contractors might operate their own systems. If a provision could alter operations then it could have physical consequences and environmental impacts and was analyzed in detail in Chapter 7. If it would not alter operations it was assumed that is would have no physical consequences and environmental impacts. The DEIR determined that the contractual changes with the greatest potential for effects on SWP operations are those that altered water allocation procedures in times of shortage and surplus, enabled transfers and retirements of Table A amounts, and provide for the use of various water supply management practices.

The comment notes that the table does not indicate the criteria used to select CALSIM II as the preferred analytical method. The comment refers to the fact that the draft table indicated the methods that would be used to analyze various provisions of the Monterey Amendment. Analytical methods were not included in the final table in the DEIR. They are described in DEIR Chapter 5. See also FEIR Section 6.3.

The comment criticizes the fact that the table divides the Monterey Amendment into discrete provisions and argues that by doing so it fails to address the amendment's collective effects. The Monterey Amendment itself is divided into separate provisions and the table mirrors the organization of the amendments. Contrary to the comment, the collective effects of all provisions of the Monterey Agreement and the Settlement Agreement are addressed in the DEIR (Chapters 6 and 7).

The comment argues that Article 1(d) could have effects on SWP operations. The Department has not identified any ways in which Article 1(d) would have an effect on SWP operations or deliveries to contractors.

The comment argues that Article 1(hh), in combination with Article 52, could have effects on SWP operations. As indicated in DEIR Table 6-3, Article 52 could affect SWP operations and its effects, together with those of other elements of the proposed project, are analyzed in the DEIR (Chapters 6 and 7). Article 1(hh) neither adds to nor subtracts from the impacts of Article 52.

The comment argues that Article 1(jj) could have effects on SWP operations. Article 1(jj) simply provides a definition of "interruptible water," a term that is actually used in Article 21. As indicated in Table 6-3 in the DEIR, Article 21 could affect SWP operations and its effects, together with those of other elements of the proposed project, are analyzed in the DEIR (Chapters 6 and 7). Article 1(jj) neither adds to nor subtracts from the impacts of Article 21.

The comment argues that Article 12(a)(2) could have effects on SWP operations. Article 18 alters the way SWP water is allocated to contractors. As indicated in DEIR Table 6-3, Article 18 could affect SWP operations and its effects, together with those of other elements of the proposed project, are analyzed in the DEIR (Chapters 6 and 7). Article 12(a)(2) is an administrative change made necessary by Article 18, but one which neither adds to nor subtracts from the impacts of Article 18.

The comment states that the Department should analyze whether Article 12(f) could produce operational changes or lead to gaming of the system. The Department did so and concluded that, as indicated in DEIR Table 6-3, Article 12(f) could affect SWP operations. The effects are analyzed in the DEIR (Chapters 6 and 7).

The comment notes that the table correctly indicates that Article 21 could affect SWP operations but that impact evaluations should consider the consequences of water rates. The Department analyzed the effects of Article 21, together with those of other elements of the proposed project, in the DEIR (Chapters 6 and 7), but did not identify any changes in water rates attributable to the Monterey Amendment would neither add to nor subtract from the effects of Article 21.

The comment states that the DEIR should analyze how deliveries of non-project water may affect power rates. The Department concluded that the provision of the Monterey Amendment that addresses conveyance of non-project water would neither increase nor decrease the amount of non-project water that the Department would convey. Therefore it would have no effect on power rates. The DEIR identified an increase in energy use as a result of the Monterey Amendment that is analyzed in Chapter 7.16.

The comment notes the importance of Article 51 which alters the way the state accumulates funds for future additions to the SWP. The Department concluded, as indicated in DEIR Table 6-3, that Article 51 would have economic impacts but it would not alter SWP operations or have environmental impacts. The comment disagrees with this conclusion and argues that although pure economic impacts do not need to be addressed in a CEQA document economic impacts that result in environmental impacts do need to be addressed. The DEIR did not identify any environmental effects as a result of Article 51. See Response to Comment 30-54 in FEIR Chapter 4.

The comment notes that the table correctly indicates that Article 52 could affect SWP operations but goes on to state that this conclusion does not supersede the duty under the Settlement Agreement to conduct an independent study of the KWB. The study of the KWB is included in Appendix E of the DEIR.

## Response to Comment 30-76

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-76 is a comment on the status of the EIR Committee work by Plaintiff representatives in July 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented concerns with regard to scheduling and various procedural issues.

These comments do not go to the substance of the DEIR. As discussed in FEIR Subsection 4.2.2.2.3, the DEIR has benefited from the input from the EIR Committee established by the Settlement Agreement. Both the contractor and the Plaintiff representatives had the opportunity to provide input into the scope of the DEIR. Many changes were a result of input from the EIR Committee participants.

## Response to Comment 30-79

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-79 is a comment on the status of the EIR Committee work by Plaintiff representatives in July 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented a number of items that Plaintiff representatives wished to see relating to the DEIR. See FEIR Subsection 4.2.2.2.3.

The issues raised in this comment are discussed in the DEIR and FEIR chapters identified below.

- Attachment B Guidelines – see FEIR Chapter 9.
- SWP Operations - see DEIR Chapters 2 and 6 and FEIR Section 6.3.
- Direct and cumulative effect of the project, including changes in operations and deliveries resulting from the project – see DEIR Chapters 6, 7, and 10 and FEIR Chapters 6, 7, and 10.
- Environmental effects of Monterey-related transfers of Table A amounts – see DEIR Chapters 6, 7, and 10 and FEIR Chapters 6, 7, and 10.
- Independent study of the "transfer, development and operation of the KWB in light of the Kern Environmental Permits," including both SWP and non-SWP sources of water deliveries to the bank – See DEIR Appendix E. See also FEIR Chapter 16.
- Reasonable Range of Alternatives – see DEIR Chapter 11 and FEIR Chapter 11.

## Response to Comment 30-81

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-81 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document stated that the EIR must "carefully address the substantive concerns identified in the Third District Court of Appeal's ruling and in the settlement agreement, as well as the admonition of the court of appeal that CEQA compels a 'meticulous' process designed to ensure the environment is protected." The Department considers the DEIR and FEIR to meet both the terms of the Settlement Agreement and the standards of CEQA. See FEIR Subsection 4.2.1.3 and 4.2.2.2. See also FEIR Subsections 5.1.2.1 and 5.1.2.2.

## Response to Comment 30-82

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-82 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that the draft fails to identify the areas where the EIR is intended to apply on a project-specific level, and where it is meant to serve as a program document. It also discusses what it considers the effects of decertification of an EIR to have on project-specific EIRs that rely on the decertified EIR's assessments. See FEIR Subsections 4.2.1.3 and 4.2.2.3.

## Response to Comment 30-87

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-87 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that the draft does not clearly identify what counts as a '"significant" impact either to SWP operations or to the environment and recognizes that this may be a matter of drafting sequence.

The DEIR analyzed direct, indirect and cumulative impacts to the environment resulting from the proposed project. See FEIR Chapters 6, 7, and 10. The Department considers the DEIR and FEIR to meet both the terms of the Settlement Agreement and the standards of CEQA. See FEIR Subsections 4.2.1.3 and 4.2.2.2.

## Response to Comment 30-88

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-88 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states the comment's position that the Monterey Amendment cannot become final until after the Department makes its new project decision. See FEIR Subsections 4.2.1.2 and 4.2.1.3.

## Response to Comment 30-135

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-135 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document stated disappointment that the Plaintiffs, based on the original schedule provided by the Department for the EIR completion, had nearly exhausted the financial resources dedicated for their participation in the EIR committee. As a result they would not be able to participate further in the development of the EIR, effectively terminating the collaborative process that was envisioned in the Settlement Agreement. They express concern that the current method of analysis and the approach established in the Administrative Draft would fail to produce an EIR that meets the terms of the Settlement Agreement or the standards of CEQA. The Department considers the DEIR and FEIR to meet both the terms of the Settlement Agreement and the standards of CEQA. See FEIR Subsections 4.2.1.3 and 4.2.2.2.

## Response to Comment 30-136

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-136 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document stated that an earlier administrative draft of the DEIR failed to address the lead agency and accountability issues brought by the plaintiffs in *PCL v. DWR.* The Department considers the DEIR and FEIR to meet both the terms of the Settlement Agreement and the standards of CEQA. See FEIR Subsections 4.2.1.3 and 4.2.2.2. See also FEIR Subsection 6.1.2.3.2 on whether there are project components in the baseline, and FEIR Chapter 11 on Alternatives, especially Subsection 11.2.3.1.

## Response to Comment 30-137

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-137 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR

(Comment Letter 30). Specifically, the interim document stated that an earlier administrative draft of the DEIR failed to include various sections that relate directly to primary issues teased in the *PCL v. DWR* litigation. The DEIR analyzed direct, indirect and cumulative impacts to the environment resulting from the proposed project. See FEIR Chapters 6, 7, and 10. The Department considers the DEIR and FEIR to meet both the terms of the Settlement Agreement and the standards of CEQA. See also FEIR Subsections 4.2.1.3 and 4.2.2.2.

### Response to Comment 31-1

The comment describes the commenter's view of the history that led to the Settlement Agreement and early meetings of the EIR Committee. See FEIR Subsection 4.2.2.2. See also Response to Comment 31-1 in FEIR Chapter 16 for the part of the comment relating to transfer of an underground storage reservoir.

### Response to Comment 47-7

This comment states that the negotiations of "these new amendments to the Monterey Agreements should have been more fully discussed publicly." See FEIR Subsection 4.2.2.1.

### Response to Comment 64-10

The comment states that the changes in the contracts have been immense and that the problems with the new Monterey plus EIR that are greater than the original problems with the original Monterey Agreement EIR. See FEIR Subsections 4.2.2.2 and 5.1.2.1.2.

### Response to Comment 64-11

The comment states that the project description is too narrow and ambiguous and that the changes have resulted in a violation of the water code, the original state water project bonds and is outside of the Department's authority. See FEIR Subsection 4.2.1.1 on scope of the project, 4.2.1.2 on decision-making and 4.2.1.3 on Scope of the EIR. See also FEIR Subsection 15.1.2.1.2 on whether the changes to the Monterey Amendment are fundamental changes.

### Response to Comment 65-4

The comment asks what will be done with the EIR after it is final. See FEIR Subsections 4.2.1.2 and 4.2.2.3.1.

### Response to Comment 66-16

The comment wished to correct a comment that selling water outside the service area was not allowed under the original contracts. The comment pointed out that while the Monterey Amendment facilitated selling water outside the service area the practice had been allowed and approved under the original contracts. See response to Comment 16-17. See FEIR Subsection 4.2.1.1. See also Response to Comment 66-16 in FEIR Chapter 15.

### Response to Comment 67-27

The comment states that the EIR for the KWB did not have much public input and it would like to see that reversed. See FEIR Subsections 4.2.2.3.2, 17.2.8, and 17.2.9.

# 5. PROJECT DESCRIPTION AND OBJECTIVES

# 5. PROJECT DESCRIPTION AND OBJECTIVES

## 5.1 INTRODUCTION

The following responses address comments on the project description and objectives. Comments covered several primary issues including: the Department failed to provide an accurate, stable and finite definition of the proposed project and/or that it should have considered alternative objectives and ways to manage the water resources available to the SWP; the DEIR provides a more than adequate description of the Monterey Plus project and its affects; the project should embrace the "whole of the action" and that "CEQA compels an interactive process of assessment of environmental impacts and responsive modification which must be genuine"; the DEIR understates the scope of the Monterey Amendments restructuring of the SWP; the DEIR avoids the demands facing the State and the Delta either with regard to growth and water availability or with regard to the stresses facing the Delta; the DEIR ignores other policy actions taking place; the DEIR did not adequately describe the Kern-Castaic transfer; concerns that because no changes were made to the project description, the DEIR process is just a sham rather than a good faith effort to address and correct problems; the DEIR failed to look at the action in a different and comprehensive manner, that it failed to embrace the whole of the action, and that the Department is avoiding the hydrological, legal and environmental demands of our times.

The master response is organized by the following subtopics:

5.2.1 Accurate, Stable and Finite Definition of the Proposed Project
5.2.2 Different and Comprehensive Manner - Interactive Process
5.2.3 Description Embraces Whole Action

Some of the comments received on this chapter of the DEIR are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Section 5.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include references to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This Chapter addresses the following comments: 4-2, 6-1, 6-10, 16-1, 16-2, 16-16, 22-1, 30-13, 30-14, 30-19, 30-29, 30-30, 30-31, 30-32, 30-47, 30-83, 30-89, 31-7, 36-3, 36-4, 36-18, 42-13, 62-5, 62-10, 64-13, and 65-8.

## 5.2 MASTER RESPONSE

### Summary

The DEIR contains an accurate, stable and finite definition of the proposed project; the proposed project embraces the whole of the action and there has been an interactive process of assessment and responsive modification. The proposed project and objectives in the DEIR are substantially the same as the proposed project and objectives in the EIR on the Monterey

Agreement with some changes brought about by the Settlement Agreement. Although the Department (and the SWP contractors) could have chosen another project purpose and objectives, they did not and they were under no obligation to do so under CEQA, *PCL v. DWR,* the Settlement Agreement or the Superior Court's Order on remand in *PCL v. DWR*. The DEIR recognized that there were significant concerns regarding the issues of growth and water reliability and stresses facing the Delta. To the extent that these issues affect or could be affected by the Monterey Amendment and the Settlement Agreement, they are discussed in this EIR. Many of the comments relate to issues that concern operations of the SWP as a whole or issues outside of SWP operations. The Department concluded that the Monterey Amendment is not an appropriate tool for mandating changes to solve these issues and recognized that there were administrative and legislative efforts that could address these concerns as part of comprehensive statewide processes. The Department is involved in all these processes and working with the legislature, the Governor's office and other state and local government forums to deal with these problems and issues. Also discussed in this chapter are comments about the Kern-Castaic Transfer.

### 5.2.1 Accurate, Stable and Finite Definition of the Proposed Project

Comments addressed in this subsection include: 4-2, 16-16, 30-29, 30-30, 30-31, 30-32, 30-47, 30-89, 31-7, 36-3, 36-18, 42-13, 64-13, and 65-8.

Comments state that the Department must prepare an entirely new EIR, citing the opinion in *PCL v. DWR* in which the Court states that the Department, "with its expertise on the statewide impacts of water transfers, may choose to address those issues in a completely different and more comprehensive manner." Some comments suggest that the Monterey Amendments are a major restructuring of the contracts that would "fundamentally change" the "project's [SWP] essential mission and statewide environmental accountability. Other comments suggest that the Department should "balance contractors' and environmental objectives" and consider allocating a portion of the water available to the SWP for environmental purposes. See also FEIR Subsection 4.2.2.2.1.

#### 5.2.1.1 Not an EIR on the State Water Project

This EIR examines changes resulting from the proposed project (the Monterey Amendment and the Settlement Agreement) and its potential environmental impacts. It is not an EIR on all the operations and impacts of the SWP or on all of the problems regarding the Delta or relating to land use and water supply. The Monterey Amendment is an agreement between the Department and the SWP contractors primarily about how exported water that is available to the SWP is allocated and managed. The Department has and continues to export SWP water to the SWP contractors in compliance with all State and federal environmental laws and regulations. The Department recognizes that there are conflicts between the management of water supply and fisheries in the Delta and is actively participating in a number of programs that are focused on resolving those conflicts while benefiting the Delta ecosystem. The conflicts in the Delta between aquatic resources, particularly listed fish species, and water exports, would continue to exist even if there was no proposed project. As the Supreme Court pointed out in *In re Bay-Delta* (pages 1167-68):

> The Court of Appeal erred also in failing to sufficiently distinguish between preexisting environmental problems in the Bay-Delta, on the one hand, and adverse environmental effects of the proposed CALFED Program. Under CEQA, the range of alternatives that an EIR must study in detail is defined in relation to the adverse environmental impacts *of the proposed project….* The main thrust of the Court of Appeal's reasoning was that reducing

> Bay-Delta water exports would "be environmentally superior" because it would facilitate achievement of the ecosystem restoration component of the CALFED Program and thereby more effectively address the Bay-Delta's existing environmental problems. But those problems would continue to exist even if there were no CALFED program, and thus under CEQA they are part of the baseline conditions rather than program-generated environmental impacts that determine the required range of program alternatives.

This EIR on the proposed project presents a similar situation. This EIR does not need to address all of the environmental impacts that may be associated with operation of the SWP or to address all of the Delta's existing problems that existed before the Monterey Amendment. It only needs to study in detail the adverse impacts generated by the proposed project and mitigation measures and alternatives that address project-generated impacts.

### 5.2.1.2 Project Description and Objectives of the Monterey Amendment are Basically the Same as those in the Monterey Agreement

Purpose and Objectives of the EIR

After the EIR on the Monterey Agreement was decertified, the Department prepared the DEIR on the proposed project. The overall objective of the proposed project is to resolve the underlying issues that led to the Monterey Amendment and implementation of the Settlement Agreement.

In *PCL v. DWR* (83 Cal.App.4th at p. 920), the Court found that that the Central Coast Water Agency, which had prepared the EIR on the Monterey Agreement, was not the proper lead agency, and that the Department is the proper lead agency and must prepare a new EIR on the project. The Court recognized that the Department might approach the environmental review of the project in a different or more comprehensive manner because of its statewide perspective and knowledge. See FEIR Subsection 4.2.2.2.

After independently considering and reviewing the original Monterey Agreement objectives, with advice from the EIR committee established by the Settlement Agreement, the Department decided to characterize the Monterey Amendment objectives as those listed on pages 4-1 and 4-2 and further described in Chapter 4 of the DEIR. These objectives are very close to the goals of the Monterey Agreement. See DEIR page 3-3 to 3-4. See also FEIR Subsection 4.2.2.2.3.

The Monterey Amendment is changes to the existing long-term water supply contracts between the Department and the SWP contractors. As stated in the DEIR on page 3-3, with regard to the Monterey Agreement:

> The parties adopted a broader approach to address water allocation and a number of other interrelated issues pertaining to the management and financing of the SWP. The broader issues that the negotiators addressed included development of measures to allow the contractors to more effectively manage the more limited SWP water supplies anticipated to be available to them in the future, development and use of the Kern Water Bank and issues pertaining to restructuring rates.

The underlying fundamental purpose of the Monterey Agreement and the Monterey Amendment is to resolve conflicts and disputes between and among the urban and agricultural SWP contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. One key objective of the Monterey Agreement and the Monterey Amendment is to facilitate water management practices and water transfers that

improve reliability and flexibility of SWP water supplies in conjunction with local supplies. The primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits.

The terms of the long-term water supply contracts, including the Monterey Amendment, do not determine how the Department will operate the SWP facilities to meet regulatory requirements, but determine how SWP supplies and costs are allocated among the contractors. The terms may also determine how exported water is managed and where SWP contractors might store SWP water (if it is to be stored) if they have been allocated sufficient SWP water to store after meeting current needs. To the degree that hydrologic and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. The Monterey Amendment cannot and does not change hydrologic conditions or regulatory requirements in effect at the time of export, including applicable permits and constraints to protect water quality and listed fish species.

The primary elements of the Monterey Amendment relate to arrangements between and among the contractors and the Department with regard to the SWP long-term water supply contracts. These include how SWP financing rates are restructured; how SWP water is allocated among contractors; how water supply management practices regarding water deliveries can be facilitated in conjunction with local supplies; and transfer of the KFE property to the KCWA to be developed and used as a local groundwater storage facility. See FEIR Subsection 4.2.1.1.

The Department operated the SWP in accordance with the long-term water supply contracts for more than 30 years prior to the Monterey Amendment. The changes made to the long-term water supply contracts by the Monterey Amendment are probably the most substantial changes since the agreements were signed in the early 1960's. However, they do not change the basic purpose of the SWP which is to divert and store surplus water during wet periods and distribute it to 29 contracting agencies. The changes included in the Monterey Amendment, while significant for the contractors and the Department, do not "fundamentally change" the SWP's "essential mission nor its statewide environmental accountability." The water available to the SWP continues to be delivered to the same urban and agricultural contractors and the SWP continues to operate in accordance with environmental regulatory constraints, including requirements for water quality and endangered species protection. The KWB Lands are to be used by KWBA as a locally-owned water bank for the same basic purpose as the state-owned water bank proposed for that land before the transfer – to store surplus water for water users during years of abundant supply for extraction and use in dry years and subject to environmental use permits which regulate the terrestrial impacts of the use of the lands for this purpose.

The SWP designates water for environmental purposes before allocating water to the contractors. DEIR Subsection 6.2.3 lists the considerations that go into allocations to contractors. Prior to the allocations to contractors, the Department evaluates the expected Delta conditions for the year, schedules its operations to assure adequate flow and temperature compliance on the Feather River, and provides for sufficient water to meet all applicable Delta constraints in conjunction with export pumping operations. In addition, the SWP provides water to meet recreation, fish and wildlife obligations of the SWP. After providing for these environmental requirements, water is allocated to the contractors.

Ongoing conditions and activities are part of the "environment" in which the proposed project will operate and may affect the magnitude of impacts of the proposed project on the environment. Changing conditions, such as changes in demand, demand reduction, climate change and other

hydrological conditions, and environmental constraints can be characterized as a change in future conditions under which the proposed project will operate. The proposed project does not cause these changes to occur. These ongoing and changing conditions and their effect on the proposed project or the proposed project's effect on them were discussed in the DEIR in relevant Sections of Chapters 7 and 10. The proposed project would not result in added Delta diversions above levels permitted at the time of diversion. Changing conditions may result in less water available to the SWP for export and, therefore, fewer impacts than those disclosed in the DEIR. See FEIR Subsection 6.2.2.2 on changing conditions. See also FEIR Subsection 14.2.3 on types of water and demand and FEIR Subsection 7.2.2.1.3 on environmental compliance.

## The EIR Does not Need to Include Broader Objectives

Some comments suggested that the Department was obligated to consider project objectives that would balance contractors' and environmental objectives or allocate a portion of the water available to the SWP for environmental purposes. Neither the Court in *PCL v. DWR* nor the Superior Court's Order on remand, nor the terms of the Settlement Agreement suggests that the Department is obligated to change the basic approach to the SWP to require the Department to consider such broad objectives. Although CEQA requires an agency to consider mitigation measures and alternatives that would meet its project objectives, it does not require an agency to examine a project and objectives that are completely different from the one it has chosen to pursue. See DEIR Subsection 11.2.3 and FEIR Subsections 11.2.3 and 11.2.4 for more discussion on alternatives that were rejected as different projects with different objectives than those of the Monterey Amendment.

As the California Supreme Court said in *In re Bay-Delta* (page 1163), "[T]he process of selecting the alternatives to be included in the EIR begins with the establishment of project objectives by the lead agency. 'A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings…The statement of objectives should include the underlying purpose of the project.'" The Supreme Court reaffirmed the directions in *Laurel Heights* and *Citizens of Goleta Valley* that the lead agency has the authority and responsibility to initially frame the scope of its proposed purpose and objectives. The lead agency cannot make the objectives so narrow that there is only one project that meets the objectives. Beyond that caveat, however, the lead agency is free to limit its proposed objectives to the issues it wants to address and is not obligated to look at broader issues or concerns. Again in *In re Bay-Delta* (page 1166), the court said that although "…a lead agency may not give a project's purpose an artificially narrow definition, a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose, and need not study alternatives that cannot achieve that basic goal. For example, if the purpose of the project is to build an oceanfront resort hotel …or a waterfront aquarium…. a lead agency need not consider inland locations."

Although the Department is the lead agency, the Department cannot make a unilateral decision because the proposed project involves changes to a contract, i.e., the long-term water supply contract, and requires the concurrence of the other contracting parties. Even if the Department could unilaterally impose changes of the nature suggested by the comments or the Department and the contractors could mutually change the water supply contracts in a way that would allocate or leave more water for the environment, CEQA does not require the Department to consider or make these changes within the context of this EIR. The Department has chosen in this EIR to keep the objectives limited to ones that deal with issues and conflicts between and among the Department and the contractors and leave resolution of broader issues relating to

the health of the Delta and urban development to other established planning, legislative and regulatory processes. See discussion in FEIR Subsection 5.2.3.2.

Although the basic project purpose and objectives have not changed from the EIR on the Monterey Agreement (with the exception of those relating to the Settlement Agreement), the DEIR and this FEIR differ from the original EIR in many ways. The Department has addressed the issues in a completely different and more comprehensive manner and the DEIR reflects the updated and independent view of the Department as an agency with statewide knowledge and concerns. See the discussion in FEIR Subsection 5.2.2.

### 5.2.1.3 The Description of the Proposed Project is not Abbreviated

Some comments state that the description of the proposed project in the DEIR is abbreviated and that the background discussion of the SWP is limited to a brief description of the articles separate from their legal and institutional context. The comment does not, however, identify any specific point that it says makes the DEIR inadequate.

The Department considers the description of the project to be adequate and sufficient for CEQA purposes. Appendix C of the DEIR provides the exact language of the Monterey Amendment (Amendment 21) as it is found in the long-term water supply contract of one of the SWP contractors. Table 4-1 of the DEIR identifies each change by article number and its relationship to the objectives identified on pages 4-1 and 4-2. Table 6-3 of the DEIR describes the effect of the change on SWP operations. Pages 4-1 through 4-9 of the DEIR summarize the most significant changes to the water supply contracts. In addition, the earlier chapters of the DEIR provide information that explains the context of the Amendment changes and show what the changes do. Pages 2-1 through 2-18 of the DEIR describe the SWP including the portions of the water supply contract that are most relevant to the Monterey Amendment changes. DEIR pages 3-1 though 3-4 describe the history and background leading up to the Monterey Amendment. DEIR pages 6-1 through 6-66 describe in detail how the proposed project affects SWP and SWP contractor operations.

### 5.2.1.4 The Transfer of Table A Amounts from KCWA to Castaic Lake WA (Kern-Castaic Transfer) is Properly Described

The Monterey Amendment included a provision that 130,000 AF of Table A amounts be transferred from agricultural to M&I users. The adequacy of an EIR on a transfer of 41,000 AF of Table A amounts from KCWA to Castaic Lake WA (Kern-Castaic Transfer) was challenged within the statutory time period. As discussed on page 4-11 of the DEIR, the Settlement Agreement recognized that there was litigation regarding the transfer and stated that the "parties agree that jurisdiction with respect to that litigation should remain in that court and that nothing in this Settlement Agreement is intended to predispose the remedies or other actions that may occur in that pending litigation" [Article III(E)]. The Settlement Agreement also states that the EIR must provide an analysis "of the potential environmental effects relating to: (a) the Attachment E Transfers [transfers that were not challenged]; and (b) the Kern-Castaic Transfer, in each case as actions that relate to the potential environmental impacts of approving the Monterey Amendments" [(Article III(C)(4)]. A challenge to a second EIR on the Kern-Castaic Transfer is now on appeal.

Comments also expressed concern that the Kern-Castaic transfer is characterized as final in the DEIR and that "premature acceptance of that finality stands in a collision course with the present EIR in which the Department must study and exercise judgment on the same transfer

from a statewide perspective." Comment 4-2 sets forth the position of Castaic Lake WA with regard to the litigation on the transfer and related cases. The Settlement Agreement language regarding the Attachment E Transfers (final transfers) and the Kern-Castaic Transfer is identical – to analyze them as actions that related to the potential environmental impacts of approving the Monterey Amendments. As required by CEQA and the Settlement Agreement, the DEIR analyzes the impacts of the Kern-Castaic Transfer throughout Chapter 7 in the same way it analyzes other transfers.

The transfer is included in the analysis of the period 1996 to 2003 and in the future because the transfer had actually taken place and the Department has operated the SWP accordingly.

The Department does not agree that the transfer is characterized as final in the DEIR. On page 4-11, the DEIR recognized that the Kern-Castaic Transfer was subject to litigation. See also DEIR Table 6-4. In addition, NP Alternative 2 includes the transfer and NP Alternative 1 does not include the transfer. As a result, decision makers and the public can see the impacts of including the transfer or not including it.

### 5.2.2 Different and Comprehensive Manner - Interactive Process

Comments addressed in this subsection include: 16-1, 22-1, 30-19, 30-29, 30-83, 36-4, and 64-13.

Some comments express concern that because no changes were made to the project description, the DEIR process is just a sham rather than a good faith effort to address and correct problems. See also FEIR Subsection 4.2.2.2. Again it is important to identify what the problems were – they were primarily problems between and among the SWP contractors and the Department. Neither *PCL v. DWR* nor the Settlement Agreement requires the Department to look at a different project with different objectives. The Department has proceeded in a very open and comprehensive manner to analyze the project and objectives that led to the Monterey Amendment.

As discussed in FEIR Subsection 4.2.2.2.3, an EIR committee consisting of representatives of the plaintiffs in *PCL v. DWR* and representatives of the contractors provided advice and recommendations to the Department in connection with the preparation of the draft and final versions of the EIR. See Settlement Agreement, Section III.B. Although the Department did not agree with or accept every suggestion of the members of the Committee, the Department considered the advice and recommendations of members of the EIR Committee.

The DEIR included various alternatives including ones that would not include some or all of the Monterey Amendment components. It has identified potential significant adverse environmental impacts that were not identified in the first EIR and it has proposed mitigation measures that were not identified in the first EIR. While the proposed project may not have changed substantially, the process is not a "sham." The DEIR and the process involved in its development demonstrate an interactive process of assessment and responsive modification.

Examples of the differences in the analysis in the EIR on the Monterey Agreement and the DEIR include:

- The baseline used in the DEIR reflects a number of variables including continued operation of the SWP in accordance with the long-term water supply contracts and historical operation of the SWP under the Monterey Amendment for approximately ten years. See DEIR Section 5.3 on pages 5-1 through 5-5.

- The DEIR discusses in some detail two no project scenarios that include invocation of Article 18(b) and provides a more detailed analysis of how Article 18(b) might have been applied including modeling studies that are comparable to the modeling studies done for the proposed project. It also includes two other no project scenarios – one which does not include any of the Monterey Amendment provisions and one which includes only those provisions that have been implemented prior to 2003 (present). See DEIR Section 11.3 on pages 11-7 through 11-33.
- The analysis of transfers uses new modeling studies which included input from the plaintiff and contractor representatives on the Monterey EIR Committee and takes into account the historical data available to the Department because of approximately 10 years of operation under the Monterey Amendment. See DEIR Sections 5.4 and 5.5 on pages 5-5 through 5-15 and DEIR Chapter 6.
- Based on new studies and data and a more comprehensive analysis, the potential impact on growth of the water transferred from agricultural to urban users was found to be greater than that found in the first EIR on the Monterey Agreement. See DEIR Chapter 8.
- Because of the concerns expressed by the court in *PCL v. DWR* and concerns expressed by the plaintiff representatives on the Monterey EIR Committee, the DEIR analyzed the relationship between growth and water supply reliability. See DEIR Chapter 9.
- In part, as a result of comments from the plaintiff representatives on the EIR Committee, the DEIR analyzed, in a quantitative method, the impacts of the water supply management practices and found potentially significant future impacts on fisheries resources in the Delta. As a result of this finding and other current factors regarding major declines of fisheries resources in the Delta, the DEIR discusses in more detail the issues surrounding Delta pumping and fisheries in the Delta, including mitigation. See DEIR pages 7.3-54 through 7.3-77.
- The DEIR also identified potentially significant unavoidable local impacts from the water supply management practices relating to the construction impacts that could result from new groundwater banks and from worst case operation of the flexible storage provisions. Even though it considered these impacts extremely unlikely, they are disclosed in the DEIR. See DEIR impacts summary on Table ES-1.
- Since all of the significant impacts identified are the result of the provisions relating to water supply management practices, the DEIR analyzed an alternative (Alternative 5) that would not include all of these practices even though it does not meet several of the project objectives and there is doubt about its institutional feasibility. See DEIR Section11.3 on pages 11-7 through 11-33.

In addition, in response to comments received on the DEIR this FEIR includes additional analyses that clarify or amplify information included in the DEIR:

- The FEIR includes an analysis of the growth-inducing impacts of the water supply management practices. See FEIR Subsection 8.2.4.
- The FEIR includes an analysis of the effects of operating the SWP with Article 18(b) invoked and limited or no Article 21 water delivered to SWP contractors. See FEIR Subsection 9.2.5.3.

### 5.2.3 The description of the proposed project embraces the whole of the action

#### 5.2.3.1 Negotiated Agreements and Objectives

Comments addressed in this section include: 6-1, 6-10, 16-1, 16-2, 16-16, 36-3, and 36-4.

Both the Monterey Amendment and the Settlement Agreement are negotiated agreements that reflect a balance among the parties negotiating. The CEQA Guidelines state that the range of potential alternatives to a proposed project must include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects caused by the proposed project (Guidelines Section 15126.6 (c)). The Department considers the objectives of the proposed project to be adequately described and to consider the whole of the action.

Some comments argue that it is not consistent with CEQA to have, as part of the objectives discussion, the statement on page 4-2 of the DEIR that "to fulfill the intent and purpose of the project, it is essential that all of the above objectives are met." Other comments state that it is essential that the EIR recognize that the basic purpose of the Monterey Amendment project can only be achieved if all of the carefully balanced provisions of the underlying Monterey Agreement can be met. Leaving out one objective may leave one of the parties to the agreement in a poorer situation than the other parties. Using a numbers analysis to reduce or delete some of the objectives may change project alternatives in a way that shifts the balance among parties.

Some of the comments suggest that the DEIR criteria require that an alternative must meet all of the stated project objectives in order for it to be evaluated in detail in the DEIR. Other comments seemed to indicate that as long as an alternative met some of the objectives it should be analyzed in the EIR. The proposed project objectives were established taking into consideration the whole of the proposed action. The history and description of both the Monterey Amendment and the Settlement Agreement describe the negotiation process leading up to both agreements. Because they were negotiated agreements, all parties to the agreements must have perceived a benefit or there would have been no reason to sign the agreements. The reasons for signing may have been different for each party, but each one had to believe that it would benefit from the changes as a whole. Some parties may have given up some rights or benefits in exchange for other benefits. These benefits are incorporated into the objectives. If any component is removed or any objective is not met, one of the parties is likely to have not gained the benefit it thought it was gaining from signing the agreement. See DEIR Chapters 3 and 4 and FEIR Subsection 11.2.1.

The California Supreme Court recently reaffirmed in *In re Bay-Delta* (pages 1162 through 1169, see especially page 1165) that an EIR's consideration of alternatives is based on the rule of reason considering the facts and circumstances involved. The focus of the Supreme Court was not on whether a rejected alternative met some or most of the objectives but rather on whether the lead agency has reasonably determined that the rejected alternative cannot achieve the project's underlying fundamental purpose. The Supreme Court recognized that, in certain instances, when the proposed project reflects a negotiated solution to a problem that provides benefits for different parties, the CEQA analysis can reject alternatives that do not achieve all of the objectives concurrently. There are similarities between the Monterey Amendment and CALFED regarding solutions supportable by competing interests. It was the disagreements among the contractors and the Department in the mid 1990's over how the SWP water supply contracts were to be interpreted and water supply allocated between agricultural and M&I contractors, as well as difficulties with other issues including potential development of the

planned KWB, that led to the Monterey Agreement. As with the Monterey Agreement, the CALFED solution was, to paraphrase the court's decision on page 1165 regarding the CALFED process, established "to reduce the conflicts and provide a solution that competing interests could support….accordingly the PEIS/R describes its integrated approach to achieving all …objectives concurrently as 'the very foundation of the Program.'….Nothing less can achieve the underlying fundamental purpose of reducing conflicts by providing a solution that competing interests can support."

In *In re Bay-Delta* (page 1168) the Supreme Court also recognized that Bay-Delta ecosystem restoration to protect endangered species is mandated by both state and federal endangered species laws, and for this reason water exports from the Bay-Delta ultimately must be subordinated to these laws. This DEIR and FEIR both recognize that the Monterey Amendment actions are subject to the endangered species laws as well as other regulatory processes including State Water Resources Board Decision1641and Corps permits. Any actions designed to resolve the water allocation and other issues among the Department and the SWP contractors, including the Monterey Amendment and the actions it facilitates are subordinated to legally binding environmental restrictions.

Even if the Monterey Amendment negotiations are considered to be fundamentally different from those of the CALFED process, and CEQA were to require a Monterey Amendment alternative that does not meet all the project objectives, even though one party may lose some of its benefits, this EIR would satisfy such a requirement. Alternative 5 meets this requirement. The potentially significant impacts of the proposed project are all attributable to the water supply management measures. Alternative 5 is an alternative that could lessen the significant impacts of the proposed project, including any potential impact to the Delta, and still meet some of the objectives of the proposed project. See the discussion in Chapter 11 in the DEIR and Chapter 11 in the FEIR on Alternatives for more discussion on alternatives.

In addition, the DEIR finds that there are potentially significant adverse environmental impacts as a result of the proposed project and mitigation measures are identified that can avoid or substantially lessen those impacts. The DEIR identifies a number of mitigation measures that the Department may adopt. They are summarized in Table ES-1. See also FEIR Subsection 7.2.2.1.3.

Some comments state that the Department said in the Kern-Castaic litigation that it has the right to "adjust the Monterey water delivery contracts based on new circumstances." What the Department said was "Any contractual agreement to transfer SWP water from one contractor to another is always subject to possible changes or curtailments. For example, if water quality standards for fish reduce the amount of water that can be exported, it will affect the transfers. Likewise, it is possible that decisions made as a result of the Monterey Amendment EIR will affect the transfers." the Department Opposition Brief filed on December 6, 2006, pages 20-21. The Department does not consider actions which might "affect the transfer" to be the same as actions which "adjust" the contracts.

Comment 36-4 also says that the EIR "can and should address mitigation measures and alternatives that address all areas of controversy even though they may be outside the concept of the original project agreement. The Department disagrees. CEQA makes it clear that the EIR should consider mitigation measures and alternatives that avoid or substantially lessen potential significant adverse environmental impacts caused by the proposed project. The EIR is not required to address areas of controversy that are outside the concept of the proposed project.

### 5.2.3.2 The DEIR Considers the Relationship of the Proposed Project to Other State Water Policy Activities.

Comments addressed in this subsection include: 30-13, 30-14, 30-29, 30-47, 31-7, 36-18, 42-13, 62-5, and 62-10.

Comment 30-14 states that the Department is avoiding the hydrological, ecological and legal demands of our time. The comment mentions the Delta Vision, the California Water Plan and recent reports and actions on climate change as examples of ways in which California is commencing the task of bringing to water policy a "new era of realism." It states that "the DEIR seems conspicuously disconnected from the State's direction in other settings to the point that the 'plaintiffs' are chided for even suggesting alternatives that are sustainable and would not cause additional injury to the Delta." Other comments say the Department should take a leadership role in establishing mandatory requirements regarding water reliability and growth including specific standards with regard to where and when growth should occur and regarding implementation of conservation measures to reduce the need for water and to reduce demands for water from other sources. Comments also say the Department should also take a leadership role in limiting exports from the Delta to protect fish and other delta resources.

The DEIR does not avoid the demands facing the State and the Delta either with regard to growth and water availability (see Chapters 8 and 9 on Growth and Water Reliability in the DEIR and the FEIR), with regard to the stresses facing the Delta (see Chapter 7.3 in the DEIR and Chapter 7.2 on Fisheries in the FEIR) or with regard to challenges posed by climate change (Chapter 12 in the DEIR and Chapter 12 in the FEIR). Application of the Monterey Amendment is not inconsistent with other water policy actions. As stated in FEIR Subsection 5.2.1.2, the primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits. Physical, legislative, administrative or judicial changes that affect water supply or benefit the environment may impact how the Monterey Amendment is applied.See FEIR Subsection 11.2.4.

Some of the comments argue that the alternatives suggested by the plaintiffs and rejected in the DEIR in Chapter 11 are sustainable and would not cause additional injury to the Delta. The alternatives proposed by the plaintiffs were not alternatives to the proposed project, but rather different projects designed to solve problems related to operations of the SWP as a whole or to solve problems only tangentially (or not at all) related to the SWP or the Monterey Amendment (see FEIR Subsection 11.2.3.). The DEIR concluded that the Monterey Amendment is not an appropriate tool for mandating the suggested changes. It also recognized that there were administrative and legislative efforts that could address these concerns as part of other comprehensive statewide processes. (DEIR pages 11-5 through 11-7). The Department is taking a leadership role and is actively involved in many of these efforts. The Department considers these issues to be of the highest statewide importance.

To the extent that the comments argue that the Department should consider or take a leadership role in establishing mandatory requirements regarding water reliability and growth, water conservation or comprehensive Delta solutions, they are not generally comments relating to an environmental issue resulting from the proposed project. However, this EIR provides below some information and background on some of these issues so that the public and decision makers can have a better understanding of the environment and the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. This information does not add significant new

information to the DEIR regarding impacts or mitigation measures and does not change the results or conclusions of the DEIR. To the extent that these issues are related to potential physical changes in the environment, they are included in the EIR. The comments provided are part of the permanent record for this proposed project and will be forwarded, as appropriate, to the Director for his consideration in the decision-making process.

The following information summarizes much of the ongoing administrative and legislative water policy activities to show their context in relationship to the Monterey Amendment and the Settlement Agreement. See FEIR Chapter 12 for more discussion on Climate Change.

## Environmental Protection

Regulatory and other programs for water quality and supply are discussed in the DEIR on pages 7.1-19 through 7.1-34. Regulatory and other programs for fisheries, in general, are discussed in the DEIR on pages 7.3-28 through 7.3-30 and, regarding Delta fisheries, on pages 7.3-52 and 7.3-53 and 7.3-69 through 7.3-71. On these pages the DEIR identifies the CALFED program, the SWRCB water quality and water rights process, including the Water Quality Control Plan for the SF Bay and Delta and Decision 1641 which governs SWP operations, the California Water Plan (Bulletin 160), the Delta Vision Process, the Delta HCP/NCCP (BDCP process), the state and federal endangered species processes including the biological opinions on delta smelt and salmon, the Delta Pumping Plant Fish Protection Agreement, the Pelagic Fish action Plan, the Delta Risk Management Strategy, and Department funding of water efficiency measures through grant programs.

Some of the most significant activities relating to protection of the Delta include the two recent decisions by the federal district court relating to the biological opinions of the U.S. Fish and Wildlife Service on delta smelt and the National Marine Fisheries Service on salmonids and the recent State listing for longfin smelt. Ongoing consultation on revised biological opinions for delta smelt and Chinook salmon and on an incidental take permit for longfin smelt have provided opportunities for discussions and resolution of appropriate restrictions on total SWP delta operations and pumping, including the Monterey Amendment. See FEIR Subsection 7.2.2.1.

In addition, two major cooperative efforts to consider the Delta in a comprehensive manner are expected to lead to changes that will improve the delta environment. The Bay Delta Vision Blue Ribbon Task Force, a bipartisan group charged with looking at the future for the Delta, issued its Vision and a Strategic Plan to implement the Vision. Central to the vision and the plan is the relationship between water use (including the SWP) and the other beneficial users of the Delta. The Delta Vision Committee, a committee of the Governor's Cabinet Secretaries reviewed the recommendations of the Task Force and, on December 31, 2008, recommended a series of fundamental actions to be taken now and a phased implementation of most of the supporting strategies from the Delta Vision Strategic Plan. The BDCP is focused on providing a comprehensive approach to environmental review and permitting for the SWP and CVP. The Department is deeply involved in all these processes and fully engaged in working with the legislature, the Governor's office and other state and local government forums to deal with these very real problems and issues.

Some of these levels of involvement are highlighted in a recent letter from Governor Schwarzenegger to Senators Perata, Steinberg and Machado on February 28, 2008 FEIR Appendix C. This letter points out that the administration had been working on solutions for addressing California's water supply and the crisis in the Sacramento-San Joaquin Delta for more than two years. It recognizes negotiations involving the legislature and the Administration

on a comprehensive water infrastructure package and an acknowledgement that the heart of California's vital water supply system is in jeopardy of collapse without immediate action and long term solutions to restore the ecosystem and protect water supplies. In his letter, the Governor outlined a comprehensive plan for Delta sustainability to avert an ecological disaster and ensure reliable water supplies for Californians now and in the future. It highlights the Governor's direction to the Department to expedite both Delta flood protection and Delta environmental protection actions. The plan is consistent with the California Water Plan and the Delta Vision's Blue Ribbon Task Force recommendations and includes actions that need to move forward now and that will be consistent with any long-term strategic plan. Each of these actions will contribute to the sustainability of the Delta, restoring the environment and ensuring clean, safe and reliable water supplies for California.

The Department is taking the lead in many of these activities. The Department has completed scoping and is currently working on a draft EIR/EIS for the BDCP. The BDCP EIR/EIS will look at both habitat restoration and water supply conveyance options to contribute to the recovery of endangered species and sensitive species inhabiting the Bay-Delta. In addition, in July 2008, the State Water Resources Control Board announced a Strategic Workplan for Activities in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. The Workplan activities are responsive to priorities raised by the Governor and Delta Vision and will touch on a wide range of flow-related and water quality control actions to better protect the Bay-Delta and the public trust while still protecting diverse public interests.

The legislature and the Administration have considered bills that deal with the Delta and water supply including ones that would place a proposition on the ballot to support and fund programs to protect the Delta and provide a more reliable water supply. Several new proposals are currently being considered in the legislature and the parties are hopeful that they will be able to find a consensus approach.

Water supplies derived from the Delta continue to be needed while these other initiatives are implemented. Any added Delta export pumping attributable to the Monterey Amendment must conform to all appropriate regulatory constraints and permits. The current status of administrative and judicial controls on SWP and CVP operations relating to endangered species is discussed more fully in Chapter 7.2 of this FEIR, especially in the introduction to 7.2.1 and in Subsection 7.2.2.1 which discuss the relationship of Monterey Amendment and SWP operations to existing and future regulatory constraints. Chapter 7.2 of the FEIR also includes an update on the status of salmon species that pass through the Delta and the pelagic organisms decline. See FEIR Subsections 7.2.2.2 and 7.2.4.

## Growth, Water Reliability and Water Conservation

There are many efforts by the Department and other agencies at state and local legislative and administrative levels to address contemporary issues of growth, water reliability and water conservation. In addition, California appellate courts have also evidenced a parallel concern. One of the earliest cases, the *Kings County* opinion was issued in 1990. The Monterey Amendment was executed in 1995. *PCL v. DWR* was decided in 2000. SB 610 and SB 221 were passed in 2002. The Urban Water Management Planning Act was enacted in 1983 and amended several times including major changes in 2004. As part of the Monterey Settlement Agreement in 2003, the SWP contracts were amended to delete the term "entitlement" and the Department agreed to issue a biennial SWP Delivery Reliability Report. The California Supreme Court in 2007 issued the *Vineyard* decision and most recently in May 2008 issued a decision in *In re Bay-Delta,* two cases dealing with issues relating to growth and water supply.

Several Department publications have discussed the variability of water years and recommended caution with regard to reliance on SWP water. The Department prepares an updated California Water Plan (Bulletin 160) every five years in an effort to plan for California's future needs for water. The California Water Plan includes a diverse set of resource management strategies that can be implemented in different combinations to provide water supply reliability and to meet other water resource related management needs in different regions of the state. A key objective of the California Water Plan is to provide guidance to local government agencies and regional partnerships on ways to increase regional self sufficiency in meeting their future water demands. Water conservation and reuse and conjunctive use of surface and groundwater supplies are important components of the California Water Plan. Since 1963, the Department has published an annual bulletin (Bulletin 132) that provides detailed information on the SWP water contracts and annual deliveries, including the variations in hydrology that affect SWP delivery capability. The SWP Delivery Reliability Reports discuss in great detail the ability of the SWP to deliver water under varying hydrologic conditions. The most recent SWP Water Reliability Report shows reduced water reliability in comparison to earlier reports primarily due to regulatory changes, and also address future delivery risk because of the potential for shortages arising from climate change or natural disaster. In addition, the Department provides other tools that can help SWP contractors and local government in determining the adequacy of local water supplies. These tools include *A Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan* and a *Draft Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001*. See DEIR Subsections 9.2.4 and 9.2.6.

The Department encourages water conservation though its Office of Water Use Efficiency and related programs. In the past 15-20 years, the Department has worked with agricultural water districts on their irrigation practices, has promoted and funded desalination programs and projects and has promoted water conservation to local M&I water agencies. For more information on Department conservation activities, see the Department's Office of Water Use Efficiency & Transfers website at http://www.owue.water.ca.gov). See also recent announcements regarding water use efficiency programs on the Department's home page at http://www.water.ca.gov and Save Our Water, a public education program sponsored by the Department and the Association of California Water Agencies http://www.saveourh2o.org.

Activities relating to water efficiency and conservation include more than a billion dollars of grant funding for water use efficiency, desalination and integrated regional water management planning and implementation from Proposition 50 (2002) and Proposition 84 (2006). As of January 2009, water management grants to urban water suppliers from the Department, the State Water Resources Control Board and the California Bay Delta Authority have been conditioned on implementation of the demand management measures identified in urban water suppliers' urban water management plans. (AB 1420, 2007, Laird, added sections 10631.5 and 10631.7 to the Water Code). The Department is working with other state agencies, the California Urban Water Council and potential grantees to establish guidelines to implement the bill.

More recently, a number of state legislative and administrative initiatives have occurred. In his February 2008 letter, the Governor included a plan to reduce per capita use of water statewide by 20 percent by the year 2020. The letter encouraged legislation to incorporate this goal into statute. The Department, the SWRCB and other entities are actively involved in working to implement this goal. In addition, following its issuance of the Bay-Delta Strategic Workplan, the SWRCB expressed its intent to consider development of an urban water conservation regulatory program.

Over the years, the Legislature has been very active in considering bills dealing with issues relating to water conservation and water supply and land use planning. The following discussion includes recent bills that passed and were chaptered and bills that did not pass. Some of these bills include suggestions made by comments as alternatives to the proposed project. These legislative actions (or non-actions) provide support for the Department's decision in the DEIR that the Monterey Amendment is not an appropriate tool for mandating the changes suggested by some of the comments and that these issues are being considered in a state wide context by the Legislature.

Several bills were chaptered in 2007-8. AB 2882 (Wolk) deals with allocation-based conservation water pricing – one of the UWMP Act's water demand reduction measures. It authorizes a public entity to adopt allocation-based conservation water pricing meeting certain requirements. The bill would require that revenues derived from allocation-based conservation water pricing not exceed the reasonable cost of water service, including basic costs and incremental costs, as defined. SBX2 1 (Perata) deals with the Proposition 84 programs, including regional water management planning grants and SB 1258 (Lowenthal) deals with Gray water standards.

A number of comments suggested that the Department should take a more active role in mandating water conservation. See FEIR Subsection 11.2.4.1. AB 2175 (Laird) would have codified the Governor's plan for a 20 percent reduction in per capita water use by 2020. This bill would have required, for the first time that the Department (or any agency), have an enforcement role regarding water conservation and any role in agricultural water conservation. The bill would have required the Department to: (1) establish specific state and regional water conservation targets and interim review dates every five years beginning no later than 2012; (2) establish lists of technically feasible urban and agricultural water conservation measures; (3) conduct public hearings and workshops before establishing all state water conservation targets, methodologies and guidelines, and lists of feasible water conservation measures or water management practices; and (4) provide the Department the authority to enforce urban and agricultural water conservation target compliance and to require additional water conservation measures for urban and agricultural suppliers if targets aren't met. The bill would also have required all water suppliers to implement cost effective water conservation measures to reduce urban and agricultural water use by at least 3 million AF by 2030. The Department was actively involved in the development of this bill. Over ten bills have been introduced in 2009 dealing with the issue of conservation, including at least three bills dealing with the 20 percent reduction in per capita use by 2010.

Although there have been bills in the past dealing with local land use planning and water supply reliability as evidenced by the Urban Water Management Planning Act and other related measures discussed in Chapter 9 of the DEIR, including SB 610 and SB 221 (2002), there has been little proposed legislation on this subject recently. However, a number of bills have been introduced in 2009 that address the issue of land use planning. Land use planning and urban sprawl is also addressed in SB 375 (2008) (Steinberg) which requires development of a sustainable communities strategy to reduce greenhouse gas emissions. Development of the strategy will include issues relating to urban sprawl. The Legislature has made it clear that these urban planning issues are to be done at the regional level with state oversight, not mandated by the State as suggested by some of the comments discussed in FEIR, Subsection 11.2.4. The Department is also involved in this process. See FEIR Chapter 12 for more information on activities relating to Climate Change.

It must be recognized that even with all these measures, there will still be a need for additional water supplies and projects to increase water reliability. In his letter, the Governor included

directions to the Department to complete feasibility studies for the CALFED storage projects which he views as providing substantial public benefits both with regard for the deteriorating condition of the Delta and for the statewide water system. He also stated that he would direct the Department to expedite funding for groundwater projects that will improve water supply reliability. The Governor's proposals are reflective of a long term concern about water reliability that has existed at least since 1988. See for example the Water Conservation Bond Law of 1988 (Water Code Section 12879). In this legislation, the Legislature found and declared that there was a "lack of local water projects in certain areas of the state where the demands of a growing population could exceed water supplies which could threaten the public health and impeded economic and social growth," and "recharging groundwater basins is an effective way to maximize the availability of scarce water supplies throughout the state through the efficient management of recharge and extraction activities in groundwater basins, and by reversing the effects of historical overdraft."

## 5.3 Responses to Comments

### Response to Comment 4-2

The comment from Castaic Lake WA discusses the history of the Kern-Castaic transfer, the Kern Castaic Transfer EIR Litigation and related cases and requests that the information be incorporated into the EIR. The Department reviewed the information included in the commenter's letter and has determined that the issues raised in the attachment have been covered in the DEIR, FEIR, or responses to comments and no further response is necessary. The attachments are not officially incorporated into the FEIR, but all are included as part of the record. See FEIR Subsection 5.2.1.

### Response to Comment 6-1

The comment states that the DEIR should consider the legal feasibility of the various components of the proposed project since the range of potential alternatives shall include those that could feasibly accomplish most of the basic objectives of the project.

See FEIR Subsection 5.2.3.1. See also Response to Comment 6-1 in FEIR Chapters 4 and 11.

### Response to Comment 6-10

The comment states that the DEIR stated that the Monterey Amendment and the Settlement Agreement were "package deal[s] of negotiated concessions that required achieving all of the above objectives in order to settle significant disputes among the contractors." The comment goes on to state that that statement cannot, under CEQA, be interpreted to mean that to be eligible for inclusion in the DEIR an alternative must meet all the project objectives, but rather it need only meet most of the objectives. See FEIR Subsection 5.2.3.1. See also Response to Comment 6-10 in FEIR Chapter 11.

### Response to Comment 16-1

The comment states that the DEIR provides a more than adequate description of the Monterey Plus project and its environmental effects. See FEIR Subsections 5.2.2 and 5.2.3.1. See also Response to Comment 16-1 in FEIR Chapter 4 and FEIR Subsection 17.2.3.

## Response to Comment 16-2

The comment states that the DEIR notes that the Monterey Amendment resulted from a package deal of negotiated concessions in order to settle significant disputes among the contractors. The comment states that this is a critically important point relative to the EIR's discussion of project objectives and alternatives and that it is important that the Monterey Plus EIR recognize that the basic purpose of the Monterey Amendment can only be met if all of the carefully balanced provisions of the underlying Monterey Agreement can be achieved. See FEIR Subsection 5.2.3.1.

## Response to Comment 16-16

The comment sets forth its view of the intent of the parties with regard to the long-term water supply contracts. See FEIR Subsections 5.2.1.2 and 5.2.3.1. See also Response to Comment 16-16 in FEIR Chapter 13.

## Response to Comment 22-1

The comment states that Mr. Sjovold, who prepared the commenting entity's comments, was also a member of the EIR committee which, pursuant to the Settlement Agreement advised the Department during the preparation of the EIR. The comment states that Mr. Sjovold is "distressed that virtually none of the comments and suggestions made in the long tenure of this committee were recognized or adopted in the preparation of the document. Accordingly, he regrets that his name is listed as one of the committee responsible for preparing this document."

Mr. Sjovold was listed in the DEIR as a member of the EIR Committee. The EIR Committee's role was to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the New EIR. See FEIR Subsection 4.2.2.2.3. The Department is responsible for preparing the document. In part as a result of the advice and recommendations of members of the EIR committee, a number of difference exist between the analysis in the EIR on the Monterey Agreement and the analysis in the DEIR. See FEIR Subsection 5.2.2.

The comment also states that Mr. Sjovold considers that the DEIR has critical flaws because of its use of the CALSIM II model. See Response to Comment 22-1 in FEIR Chapter 6.3.

## Response to Comment 30-13

The comment states that the Department must address deficiencies in the DEIR at a critical juncture in California's water history, and make its final decision based on conditions as they exist in 2008, not 1995. See FEIR Subsection 5.2.3.2. See also FEIR Subsection 4.2.1.2 on lead agency decision-making and FEIR Chapter 12 on climate change.

## Response to Comment 30-14

The comment states that the DEIR seems "conspicuously disconnected from the state's direction in other settings and that to meet the hydrological, ecological and legal demands of our time, the Final EIR must rise to the occasion, rather than resorting to evasion." See FEIR Subsection 5.2.3.2. See also FEIR Subsection 4.2.1.2 on decision-making.

### Response to Comment 30-19

The comment states that the Department must prepare an entirely new EIR as the lead agency addressing the project as a whole, pointing out that the court did not hypothesize on the remaining issues because the Department "may choose to address these issues in a completely different and more comprehensive manner." See FEIR Subsection 5.2.2. See also Response to Comment 30-19 in FEIR Chapter 4.

### Response to Comment 30-29

The comment states that CEQA demands an accurate, stable and finite project definition that addresses the "whole of the action" under review and that CEQA "compels and interactive process of assessment of environmental impacts and responsive modification which must be genuine." See FEIR Subsections 5.2.1, 5.2.2, and 5.2.3.

### Response to Comment 30-30

The comment states that the proposed project provides a very abbreviated summary of the changes in the SWP that would accompany "the permanent adoption and implementation of the Monterey Amendments." It also states that "these cursory discussions fail to illuminate critical aspects of the SWP that relate to the project's essential mission and statewide environmental accountability and how this system would be fundamentally changed if the Monterey Amendments become permanent." See FEIR Subsection 5.2.1, especially Subsections 5.2.1.2 and 5.2.1.3. See also FEIR 4.2.1.2 on the Department decision making process.

### Response to Comment 30-31

The comment discusses some of the history and background regarding the authorization of the SWP and provides some interpretation of what that authorization means. See FEIR Subsection 5.2.1.2 on whether changes to the Monterey Amendment are fundamental. See also Response to Comment 30-31 in FEIR Chapter 4.

### Response to Comment 30-32

The comment states that key features of the Monterey Amendment differ sharply from the central tenets of the SWP contracts as originally framed, approved and validated by the voters, shifting a substantial degree of control from the SWP to the contractors. It also states that the commenter's opinion that the "Monterey Amendments are proceeding under the authority of the …interim order under Public Resources Code section 21168.9 and says the DEIR should identify the source of authority for the proposed project to become permanent without the approval of the Legislature or the voters of California. See FEIR Subsection 5.2.1. See also Response to Comment 30-32 in FEIR Chapter 4.

### Response to Comment 30-47

The comment states that the summary exclusion of alternatives that attempt to balance contractors' and environmental objectives is entirely inconsistent with effort the state is engaged in elsewhere. See FEIR Subsection 5.2.1 and Subsection 5.2.3.2. See also Response to Comment 30-47 in FEIR Chapter 11 on alternatives.

## Response to Comment 30-83

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-83 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that that draft of the DEIR substantially understates the centrality of the ruling in PCL v. DWR and that the summary does not discuss several foundational issues in the court's discussion, including the gap between the SWP's full Table A amounts and historical deliveries, its reference to the risk of land-use decision-making grounded in "paper" rather than real water, and any reference to plaintiffs' validation claim. See FEIR Subsection 5.2.2 on changes made to the EIR. See also Response to Comment 30-83 in FEIR Chapter 4, FEIR Chapter 9 on Water Supply Reliability and Growth and FEIR Subsection 16.2.2 on the validation claim.

## Response to Comment 30-89

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-89 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that the DEIR has mischaracterized the description of the 41,000 AF Kern/Castaic transfer as final. On page 4-11, the DEIR recognized that the Kern-Castaic Transfer was subject to litigation. See FEIR Subsection 5.2.1.4.

## Response to Comment 31-7

The comment cites several recommendations of the Delta Vision Task Force relating to efficient management of California's water supplies and to goals of conservation, efficiency and sustainable use and states that the Monterey Amendment makes changes that profoundly alter the operation of the SWP. If states that the Monterey Amendment project needs to be evaluated against other credible alternatives that may achieve superior results with less environmental impact. The recommendation and this comment are directed to issues and concerns relating to operations and impacts of the SWP or to problems regarding the Delta. See FEIR Subsections 5.2.1.1, 5.2.1.2, and 5.2.3.2.

## Response to Comment 36-3

The comment states the project purpose defeats the purposes of CEQA because the DEIR states that to fulfill the intent and purpose of the project, it is essential that all of the objectives

be achieved. It also disagrees with the characterization of the 41,000 AF Kern/Castaic transfer. It also states that if no changes to the project are intended or can be made, why did the Court order a new environmental impact report and expresses its concern that the DEIR is a "sham." See FEIR Subsections 5.2.1 and 5.2.3.1.

### Response to Comment 36-4

The comment states that the Department argued in litigation on the 41,000 AF Kern/Castaic transfer that "it does have the right to adjust the Monterey water delivery contracts based on new circumstances." It also states that this EIR can and should include mitigation and alternatives that address all areas of controversy even though they may be outside the concept of the original project agreement. See FEIR Subsection 5.2.3.1.

### Response to Comment 36-18

The comment states that the DEIR should develop an alternative that would ensure consistency with recommendation 7 of the Delta Vision Task Force that stated that "A revitalized Delta ecosystem will require reduced diversions, or changes in patterns and timing of diversions, upstream, within the Delta, and exported from the Delta at critical times. The recommendation and this comment are directed to issues and concerns relating to operations and impacts of the SWP or to problems regarding the Delta. See FEIR Subsections 5.2.1.1 and 5.2.3.2. See also Response to Comment 36-18 in FEIR Chapter 11.

### Response to Comment 42-13

The comment suggests several mitigation options, including "supply, watershed restoration, brackish water desal at the Delta of at the turnouts, eliminate saltcedar from DWR properties and its 4' of ETR, no out of basin transfers, participation in area wide mitigation, and participation in area wide planning an process." Watershed restoration in Plumas County is one part of the Settlement Agreement and this EIR examines the impact of implementing such programs. This and the other actions identified in the comment appear to relate more to operations of the SWP and to State-wide water management. See FEIR Subsections 5.2.1.1 and 5.2.3.2.

### Response to Comment 62-5

The comment states that urban safeguards must not permit watering of non-edible crops and that we must no longer allow sprawling development to tap in to the California aqueduct or other sources of water needed to grow food. See FEIR Subsections 5.2.3.2, 17.22, and 17.2.4.4.

### Response to Comment 62-10

The comment states that the EIR should discuss using tiered pricing to encourage cities and agriculture to conserve water. See FEIR Subsections 5.2.3.2, 17.2.2, and 17.2.4.4.

### Response to Comment 64-13

The comment stated that the DEIR did not comply with the decision in *PCL v. DWR* and that the project description is too narrow circumscribed. See FEIR Subsections 5.2.1 and 5.2.2. See also FEIR Subsection 4.2.1.1 for the description of the project and FEIR Subsection 15.2.1, 15.2.2, and 7.2.2.1.3 for potential impacts on the Delta.

## Response to Comment 65-8

The comment states that the commenter supports the Monterey Amendment and thinks the environmental evaluation is appropriate and may even be overstated. It states that: (1) the Monterey Amendment does not affect the total amount of water available to the contractors; (2) SWP operates to regulatory standards that determine how much water is available; and (3) the Monterey Amendment resolves some long-running disputes over how the contract would be implemented and it makes the SWP a little bit more efficient. See FEIR Subsections 5.2.1.2, 17.2.3, and 17.2.4.3.

# 6. ANALYTICAL METHODS

# 6.0 METHODOLOGY

# 6.0 METHODOLOGY

This chapter responds to questions and issues raised with regard to the methods used in the DEIR, primarily in Chapters 5 and 6. These include comments regarding how the baseline was established and what assumptions were made for specific events or actions; how the DEIR analyzed the effect of existing and changed conditions on the proposed project and how changed conditions would affect the analysis of potential impacts of the project; whether the analysis in the DEIR would change if the DEIR has covered a time line that extended beyond 2020; and methods use to analyze the impacts of the proposed project on water supply, including use of the computer model CALSIM II and analyses of historical data. It includes the following Sections:

6.1 Baseline
6.2 Changed Conditions
6.3 Methods

## 6.1 BASELINE

# 6.1 BASELINE

## 6.1.1 Introduction

The following responses address comments regarding the baseline described in Chapter 5 of the DEIR. Comments covered several primary issues including: whether the baseline condition used in the analysis is inappropriate; whether the DEIR seems to confuse the baseline and the "no project" conditions; whether the DEIR gives any real comparison for decision-makers and the public; assumptions regarding specific issues including multiple no projects, demand, Article 21(g)(1) and Article 21 deliveries; and treatment of Delta impacts. The master response is organized by the following subtopics:

6.1.2.1 Proposed Project is On-going
6.1.2.2 Proposed Baseline is On-going
6.1.2.3 Specific Issues Raised Regarding Assumptions
6.1.2.4 Delta Impacts

Some of the comments received on the DEIR's baseline discussion are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Subsection 6.1.3 of this section immediately following the master response. Individual responses to comments which are fully addressed by the master response include reference to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This Section addresses the following comments: 15-2, 15-3, 17-9, 21-15, 21-16, 21-17, 30-5, 30-34, 30-35, 30-71, 30-134, 30-139, 30-140, 36-2, 42-2, and 64-19.

## 6.1.2 Master Response

### Summary

Prior to operation of the Monterey Amendment, the SWP was an ongoing activity operating under the pre-Monterey SWP long-term water supply contracts. In addition, the SWP had operated under the Monterey Amendment for close to seven years at the time the NOP was published for this EIR (2003). Therefore the DEIR analyzes the impacts for two time periods. The first was historical and covered the period from 1996-2003 (present); the second was from 2003-2020 (future). The baseline for both time periods is 1995. The total change from 1996 to 2020 is evaluated to disclose the full impacts of the proposed project as compared to the 1995 baseline. The baseline for 1995 was actual conditions at that time. The Department chose to use a "continuing" scenario for the proposed project and the alternatives, including the no project alternatives, in the DEIR because the Monterey Amendment and the Settlement Agreement are more analogous to a plan that unfolds over several decades than to a construction project that occurs at a particular time. Thus the baseline for the Monterey Plus EIR will be continued operation of the SWP in accordance with the long-term water supply agreements, but adjusted to include certain specific events that are expected to occur over time that are not related to the Monterey Amendment and the Settlement Agreement. These

assumptions or events are full Table A requests in 2020 and several Table A transfers and water supply management practices that were not the result of the Monterey Amendment. The Department chose to include these assumptions in the baseline because it considered them independent of the Monterey Amendment and because it considers this approach to be helpful to the public and decision-makers so that they can compare the proposed project and the alternatives to the baseline and then to each other. The Department believes this approach is consistent with the CEQA Guidelines and case law on this subject.

Environmental conditions for Delta fisheries have declined since the baseline was established and environmental constraints which were in place at the time the baseline was established have changed. However, the same operating constraints are included in the proposed project scenario and all the other alternatives including the no project alternatives. The DEIR updates the discussion of Delta fisheries and actual and potential regulatory changes. A revised baseline would not change the comparative differences between the proposed project and alternatives. To the extent that more stringent restrictions are placed on SWP export operations from the Delta, impacts on the Delta would be reduced. The Department chose not to include the effects of climate change in either the baseline or proposed project scenarios. Instead, a separate analysis of its effects was made and included in Chapter 12 of the DEIR.

### 6.1.2.1 Proposed Project is On-going

Comments addressed in this subsection include: 17-9, 21-15, 30-34, 30-139, and 64-19.

Several comments state that the baseline condition used in the analysis is inappropriate, that the DEIR seems to confuse the baseline and the “no project” conditions, and that the DEIR gives no real comparison for decision-makers and the public. The following discussion helps to clarify the discussion on baseline and no project. The baseline condition used in the DEIR is described in Chapter 5 of the DEIR (pages 5-1 through 5-5).

In order to understand the issues raised by the comments, it is helpful to examine what CEQA states about how to analyze the baseline and the no project alternative when dealing with a plan, policy or ongoing operation. Prior to implementing the Monterey Amendment, the SWP was an ongoing activity operating under the pre-Monterey SWP long-term water contracts. These contracts, which were originally executed in the 1960s, will not expire before 2035.

With regard to the baseline, the CEQA Guidelines Section 15125 (a) and (e) state that the environmental setting is a:

> “description of the physical environmental conditions in the vicinity of the project ….will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant… [W]here a proposed project is compared with an adopted plan, the analysis shall examine the existing physical conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced as well as the potential future conditions discussed in the plan.”

With regard to the no-project alternative, the CEQA Guidelines Section 15126.6(e)(3)(A) states:

> “When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the “no project” alternative will be the continuation of the existing plan, policy or operation into the future. Typically, this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the

> projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan."

This DEIR was more complex than most EIRs. Prior to operation of the Monterey Amendment, the SWP was an ongoing activity operating under the pre-Monterey SWP long-term water supply contracts. In addition, the SWP had operated under the Monterey Amendment since 1996 – close to seven years at the time the Settlement Agreement was signed and an NOP was published for this EIR (2003). The DEIR analyzes the impacts for two time periods. The first covered the period from 1996-2003 (present); the second was from 2003-2020 (future). The baseline for the first time period is 1995 adjusted to 2003 demand conditions; the baseline for the second is 1995 adjusted to 2020 demand conditions. The total change from 1996 to 2020 is evaluated to disclose the full impacts of the proposed project as compared to the 1995 baseline. Although some contractors executed the Monterey Amendment in 1995, it was not implemented until the following year. The Department chose 1995 as the baseline year for the analysis because it represents conditions just prior to implementation of the Monterey Amendment. See DEIR pages 5-1 to 5-2.

CEQA Guidelines Section 15125 (a) and (e) require the analysis for the baseline to start with the existing environment at time the NOP is published. There are number of cases that discuss how to determine the existing environment when dealing with a plan or ongoing operations, and the issue is currently before the California Supreme Court (*CBE v. SCAQMD*). The line of cases that seems most applicable to the on-going operations of the SWP deals with this issue in the context of county or city general plans, and whether a change to the plan should be compared for baseline purposes to a previous plan or to the conditions at the time of the change (*County of Amador* and *EPIC;* see also *Save our Peninsula*). In these cases the impacts of the proposed project were compared to a permitted use that was greater than actual use. The cases stand for the proposition that the baseline condition is the condition at the time of the change not a hypothetical plan. This is the way the DEIR handled the changes to the Monterey Amendment. The beginning point for the baseline for 1995 is actual conditions at that time.

CEQA Guidelines Section 15126.6(e)(3)(A) states that when the project is a revision of an on-going operation, the no project alternative will be the continuation of the operation into the future. The Department chose to use "continuing" scenarios for the proposed project and the alternatives, including the no project alternatives, in the DEIR because the Monterey Amendment and the Settlement Agreement are more analogous to a plan that unfolds over several decades than to a construction project that occurs at a particular time. The result is progressive changes in SWP operations as various provisions of the altered long-term water supply contracts come into full effect over a 25-year period. The Monterey Amendment was signed in 1995. Some of its provisions were immediately implemented but others have only been recently implemented or will be implemented in the future. The same is true of the Settlement Agreement, which was signed in 2003.

### 6.1.2.2 Proposed Baseline is On-going

Comments addressed in this subsection include: 17-9, 21-15, 30-139, 36-2, and 64-19.

The comments appear to agree with the analysis in FEIR Subsection 6.1.2.1, but disagree about how to characterize the baseline over time. The Department chose to include certain conditions that could change over time in the baseline. Some of the comments disagree with the conditions included in the baseline.

The baseline scenario assumed that none of the elements of the Monterey Amendment were implemented in 1996, none of the elements of the Settlement Agreement were implemented in 1996 or 2003, and that the SWP would continue to be operated from 1996 onward in accordance with the provisions of the pre-Monterey Amendment long-term water supply contracts. Because the baseline in this case occurs over time – from 1995 to 2020, the DEIR includes certain assumptions about actions or changes that will happen over time that are not related to the Monterey Amendment or the Settlement Agreement. As described on page 5-2 of the DEIR:

> Thus, the baseline for the Monterey Plus EIR will be continued operation of the SWP in accordance with the long-term water supply agreements, but adjusted to include events that are expected to occur over time that are not related to the Monterey Amendment and the Settlement Agreement.

These assumptions or events are listed in the DEIR on page 5-2 and in Table 5-1 and include: (1) increased demand for water in the SWP service area; (2) several water supply management practices; and (3) Table A transfers that were not the result of the Monterey Amendment. Some of the comments appear to assert that since these assumptions could change in the future, they should be included in the no project alternatives instead of the baseline. The Department relies on CEQA, Section 15125(a) which states that the physical environmental conditions as they exist at the time of the NOP normally constitute the baseline. Section 15126.6(e)(3)(A) states that the no project alternative typically is a situation where other projects initiated under the existing plan will continue while the new plan is developed. The cases that have considered the baseline question discussed in FEIR Subsection 6.1.2.1 have focused on whether an agency could assume that a decision it made in the past (such as a permitted level of growth) would continue in the future if it had not done so at the time of the agency's new decision, and the courts have said no. They have not answered the question of whether an agency can assume that conditions outside its control, such as increased air pollution or population growth, would continue in the future. See for example *Save our Peninsula* on page 125*,* where the court was considering whether the baseline should begin at the time of the NOP or at the time of approval. The court said that the "date for establishing baseline cannot be a rigid one. Environmental conditions may vary from year to year and in some cases it is necessary to consider conditions over a range of time periods." See also *Napa Citizens* (starting on page 361) which assumes certain factors such as traffic increases. The Department chose to include the assumptions identified above in the baseline because it considered them independent of the Monterey Amendment and because it considers this approach to be helpful to the public and decision-makers so that they can compare the proposed project and the alternatives to the baseline and then to each other. The Department considers this approach to be consistent with the CEQA Guidelines and case law on this subject. See FEIR Subsections 6.1.2.1 through 6.1.2.3.3 for further discussion of the reasons behind including these assumptions in the baseline.

### 6.1.2.3 Specific Issues Raised Regarding Assumptions

#### 6.1.2.3.1 Multiple No Projects

Some comments question the likelihood that any of these alternatives present a "true no-project" scenario; some argue that some or all of the alternatives considered but rejected should be characterized as project alternatives; and some argue that some or all of the alternatives are unrealistic or hypothetical, portraying events that could not occur. However the Department believes that the no project alternatives analyzed provides a reasonable range of alternatives that provides information on choices that might have been made or could be made that is useful

to the public and decision-makers. This range of alternatives also provides important information on impacts of individual elements of the proposed project. See further discussion on this issue in FEIR Subsection 11.2.3.1.2.

### 6.1.2.3.2 No Project Components in Baseline

Comments discussed in this subsection include: 15-2, 15-3, 17-9, 21-15, 21-17, 30-5, 30-134, 30-139, and 36-2.

Several comments state that the baseline includes components of the proposed project, including a claim that the baseline scenario fails to back out certain aspects of the Monterey Amendment. This assertion is incorrect. The baseline does not include any elements of the Monterey Amendment or the Settlement Agreement. Three historical studies were necessary to examine differences between the baseline scenario and the proposed project. Historical Study 1 (DEIR Appendix I) backed out the effects of the altered water allocation procedures and the transfers and retirements of Table A amounts. Historical Studies 2 and 3 (DEIR Appendix K) backed out the effects of the water supply management practices from the historical record, and Historical Study 2 also backed out the effects of the Table A retirements. See Table 5-2 of the DEIR.

The Monterey Amendment facilitates certain water supply management practices as described in Chapter 4 of the DEIR (pages 4-7 and 4-8). Table 5-1 in the DEIR (page 5-4) shows the water supply practices that would occur under the baseline scenario and with the proposed project in 1995, 2003, and 2020. No water supply management practices would occur under the baseline scenario except for two activities that were in effect before the Monterey Amendment was executed (see DEIR Chapter 6 on pages 6-10, 6-11, and 6-55). These two activities are non-SWP water transfers and MWD participation in the Semitropic Groundwater Banking Program and they are discussed below. The Monterey Amendment also provided for retirement and transfer of specific Table A amounts. The baseline for 2003 includes two Table A transfers that were the result of decisions unrelated to the Monterey Amendment and were not facilitated by the Monterey Amendment. These transfers are also discussed below.

#### *Non-SWP Project Water Transfers*

In accordance with the California Water Code, the Department is required to convey water owned by others (non-project water) in SWP facilities when capacity is available and when conveyance of non-project water does not interfere with SWP operations. Prior to the Monterey Amendment the Department often conveyed non-project water as shown in DEIR Table 6-2 (page 6-11). The Monterey Amendment did not change this obligation although it did clarify the power costs that the Department would charge to contractors requesting conveyance of non-project water. As noted in DEIR Section 6.4.3 (page 6-53) Article 55 clarifies the terms and conditions for conveyance of non-SWP water using SWP facilities, but has no effect on deliveries of SWP or non-project water. Because the obligation to convey non-project water was in effect prior to the Monterey Amendment it was included in the baseline scenario.

Any change in the amounts of non-project water conveyed by the SWP before and after 1995 are attributable to contractor's changing needs for non-project water rather than to the Monterey Amendment. For further discussion see FEIR Subsections 8.2.4 and 15.2.7.

### *Semitropic Water Bank*

The Monterey Amendment facilitates the water supply management practice of storing SWP water outside a contractor's service areas for later use within the service areas. Prior to the Monterey Amendment, storage outside contractors' service areas was not a general practice but it could be approved on a case by case basis (see FEIR Subsection 15.2.4 for further discussion). In 1995 Department approval was given to MWDSC to participate as a banking partner in the Semitropic Water Bank up to a potential storage capacity of up to 350,000 AF. Because this approval occurred prior to the Monterey Amendment it was included in the baseline scenario for 1995. No other storage outside contractors' service areas was included in the baseline.

Semitropic Water Storage District notes that a 1994 EIR (prepared by Semitropic as lead agency along with MWDSC as Responsible Agency) contemplated MWDSC's participation as a banking partner in the Semitropic Water Bank with a total potential storage capacity of up to one million acre-feet (1 million AF) and that, prior to the Monterey Amendment, MWDSC contracted with Semitropic to use 1 million AF of storage capacity under certain circumstances. Because of this action the comment claims that storage of up to 1 million AF of water in the Semitropic Water Bank should be included in the baseline. The Department disagrees for the following reason: MWDSC's storage of SWP water in the Semitropic Water Bank outside its service area was subject to Department approval. The Department approved storage of about a third of that amount by MWDSC in the water bank prior to the Monterey Agreement and the Monterey Amendment, and that amount is included in the baseline. Because Department approval for the MWDSC's participation in the remaining capacity of the Semitropic Water Bank had not been received prior to the Monterey Amendment it was not included in the baseline scenario. It is possible that the Department would have approved requests for the remaining amount. However, because Department approval for the remainder of the storage by MWDSC might not have occurred in the absence of the Monterey Amendment, the Department decided that for this EIR, it was more appropriate to draw the line for the baseline scenario at those projects actually approved. This results in an analysis which shows the greatest potential environmental impact under CEQA.

The comment further claims that although storage outside a contractor's service area was rare prior to the Monterey Agreement there is no evidence to suggest that the Department would not approve requests to do so in the absence of the Monterey Amendment and suggested that the remainder should be included in the no project alternative. The DEIR analyzed the remainder as part of the proposed project. The Department agrees that approval of MWDSC's participation in the remaining capacity of the Semitropic Water Bank could have been included in NPA2 because it was approved prior to 2003. See Response to Comment 15-3 in FEIR Chapter 11.

### *Table A Transfers not Related to the Monterey Amendment*

The baselines for 2003 and 2020 include increased Table A transfers from MWDSC to Coachella Valley WD and Desert WA pursuant to the Colorado River Quantitative Settlement Agreement, and transfers from Tulare Lake Basin WD to other SWP contractors. These transfers are included because they were the result of decisions unrelated to the Monterey Amendment and were not facilitated by the Monterey Amendment. By including these transfers in the 2003 and 2020 baselines, the public and decision-makers can compare the proposed project and the alternatives to the baseline and then to each other. If the analysis was not made in this manner the environmental impacts of the proposed project and its alternatives as reported in the DEIR would be exaggerated because they would include both the impacts of

unrelated Table A transfers which would have occurred whether or not the Monterey Amendment was executed, and the impacts of the Monterey Amendment.

### 6.1.2.3.3 Water Demand in the Baseline

Comments addressed in this subsection include: 17-9, 21-15, 21-16, 30-34, 30-134, and 30-139.

Some comments questioned whether it was appropriate to include increasing demand for SWP water in the baseline scenario. Water demand has increased in the SWP service area over time and all contractors now request their full Table A amounts every year. The Department has determined that it is reasonable and appropriate to include full Table A requests by all the contractors in the baseline for the 2003-2020 time period. However, actual demand may be less than requests. Demands of individual contractors have varied historically in the 1995 and 2003 time periods, and that variability is included in demand assumptions for the 1995 and 2003 scenarios as described on page 7-10 of DEIR Appendix F. In 2020, it is assumed that all contractors will have demand for the full Table A amount in addition to requesting full Table A. Demand for agricultural water is expected to remain fairly stable while demand for municipal water is expected to increase. The increased demand for municipal water is a result of factors largely independent of the Monterey Amendment. Beginning in 2001 and from 2003 to the present, all SWP contractors have been requesting delivery of their entire Table A amounts every year and these full requests are likely to continue through 2020 and beyond.

#### *Full Table A Requests*

The DEIR used CALSIM II model runs to determine the amount of water available for delivery to SWP contractors under different hydrologic conditions for the proposed project and each alternative. Water demand estimates for 1995 and 2003 were based on historical data which, for some contractors, were less than their Table A amounts. In the 2020 CALSIM II model runs it was assumed that by 2020 all contractors would need their full Table A amounts. See DEIR Appendix F Section 2.6.1.2. Table 5-3 in the DEIR (pages 5-12 to 5-14) shows the background assumptions used in the CALSIM II model for 1995, 2003, and 2020 conditions for the baseline and other alternatives. Demand is defined in this analysis as the amount of SWP water that the contractor would actually like to receive and will physically accept delivery of if the water is available. The actual demand of each contractor for SWP deliveries can be more or less than the initial request of any contractor in any given year.

Demand is an essential CALSIM II input that strongly affects CALSIM II output. Each contractor's demand is related to the contractor's need for water, but for CALSIM II input purposes, the contractor's Table A demand cannot exceed its Table A Contract Amount. Article 21 demands are also input values for CALSIM II. The Department recognizes that in the real world, a contractor's demand varies due to the availability of local water supplies, the contractor service area's demand for water, water costs of SWP water relative to other available sources, water quality considerations, and other factors. However as discussed in FEIR Subsection 14.2.2.3, beginning in 2001 and from 2003 to the present, all SWP contractors have been requesting delivery of their entire Table A amounts every year and these full requests are likely to continue through 2020 and beyond. This demand increase is independent of the changes that are a part of the proposed project. See also FEIR Subsection 14.2.2.3 for a discussion on contractor requests, Subsection 6.1.2.3.3 for more discussion on demand in the baseline, and 15.2.3.2 for more discussion on how most increased pumping since 1996 is not the result of the Monterey Amendment.

Water demand estimates used in the CALSIM II analysis for the proposed project and the alternatives are essentially the same as those for the baseline scenario in each respective time period, except for adjustments to reflect the individual aspects of each alternative (different Table A amounts as a result of retirements, for example) as described in DEIR Appendix F Section 2.1.1, especially pages 4 to 7. The Department does not think it is likely that execution of the Monterey Amendment would have much effect on demand for SWP water. In the short term, in the years following the initial Monterey Amendment-related Table A transfers and prior to 2001, the Monterey Amendment may have suppressed requests slightly. A temporary reduction in requests may have occurred because prior to the Monterey Amendment, all agricultural contractors were requesting all their Table amounts, but some M&I contractors were not. In the initial years of the agricultural to M&I Table A transfers, the M&I contractors may not have requested all of the transferred Table A amounts because demand for the additional water had not yet developed.

In addition, the proposed project may have also had additional effects on demand that are not reflected in CALSIM assumptions or output. For example, there may have been increased demand by some urban agencies to store water outside of their service areas in addition to meeting current service area demand. Those changes in demand to the extent that they can be supported by delivered water are reflected and analyzed in Historical Study Number 3, (described in Sections 4.2 and 5.2 of the Historical Operations Analysis, DEIR Appendix K). That added increment of demand is reflected in the estimated average annual increase in Delta exports and contractor deliveries in the future period (2020) of about 50,000 AF attributable to the proposed project as a result of the water supply management practices, and would be partly offset by the decreases in Delta export pumping estimated in the CALSIM output attributable to retirement of 45,000 AF of Table A. See FEIR Subsection 15.2.2.

The estimates of deliverable water used in the DEIR are based on assumptions regarding regulatory constraints existing in 2003 superimposed on hydrologic conditions from 1922-1994. The Department believes that if CALSIM II overestimates potential deliveries that would occur under the regulatory regime in place in 2003, any resulting overestimate is relatively minor (see page 6-12 of the DEIR). Current regulatory constraints on Delta export pumping are more stringent and future SWP deliveries are likely to be more substantially reduced compared to 2003 conditions. If the DEIR overestimates deliveries the consequence is that it also overestimates environmental impacts. In an environmental disclosure document such as an EIR, it is better to overstate than to understate the potential impact so that the public and decision-makers can see the full environmental extent of their decisions. It is not reasonable for any agency to use the values in this EIR analysis to estimate available SWP water in any current year, considering the changes in regulatory constraints affecting SWP exports in current years. There are other tools that are intended to help determine the reliability of water such as Urban Water Management Plans and the Reliability Report released by the Department. See FEIR Chapter 9 on water supply reliability.

### *Increased SWP Service Area Water Demand After 2003*

Full Table A demands are included in the baseline and in the project and no-project alternatives for 2020 based on growth projections and water demand projections for the state. Such increases represent a projected continuation of the increasing demands experienced by the SWP from its inception to now. The projections are supported by an evaluation of current trends in the current California Water Plan (DWR Bulletin 160 Series). The demands are expected to continue to increase independently of any decisions on the Monterey Amendments. Accordingly the increasing demands are part of the background conditions against which changes resulting from the Monterey Amendment must be compared. If future demands are

less or more in the future than the demands included in the modeling, the analysis for each alternative will be similarly affected. By including full Table A demands in the 2020 analyses, including the baseline, the proposed project and the alternatives, the impacts of the proposed project in comparison to the alternatives are more clearly defined. If the increased demands were not included in the baseline, it would be much more difficult to separate the impacts of the proposed project from demand increases attributable to other changes in each contractor's service area. In other words, the environmental impacts of the proposed project and its alternatives as reported in the DEIR would be exaggerated because they would include both the impacts of increased water demand, which would occur whether or not the Monterey Amendment was executed, and the impacts of the Monterey Amendment itself.

As part of its development of the periodically updated California Water Plan (Bulletin 160 series), the Department estimates future total water demand in the state. Demand for agricultural water is expected to remain fairly stable while demand for municipal water is expected to increase. Although water conservation measures are expected to result in a decrease in per capita water use by urban dwellers, population growth in the cities will result in an overall increase in demand for municipal water. Thus, it is consistent with other planning efforts to assume in the baseline scenario for the EIR that water demand will increase between 1995 and 2020 as a result of factors not related to the Monterey Amendment and reasonable to include full Table A demands for 2020.

#### 6.1.2.3.4 Article 21(g)(1) in the Baseline

Comments addressed in this subsection include: 30-34, 30-139, and 36-2.

Several comments state that the baseline does not accurately reflect pre-Monterey contract provisions, including those that were included in Article 21(g)(1). The Department disagrees. It is assumed that under the baseline that the SWP would continue to be operated in accordance with the pre-Monterey Amendment long-term water supply contracts. Article 21(g)(1) states: "In providing for the delivery of surplus water pursuant to this article, the State shall refuse to deliver such surplus water to any contractor or non-contractor to the extent that the State determines that such delivery would tend to encourage the development of an economy within the area served by such contractor or non-contractor which would be dependent upon the sustained delivery of surplus water."

Article 21(g)(1) was part of the long-term water supply contracts in effect prior to the Monterey Amendment and was not part of the contracts after the Monterey Amendment. However, in the DEIR, there is no difference in the baseline demand before or after the Monterey Amendment. Several comments argued that water demand should be less under the baseline scenario than for the proposed project because, in their view, Article 21(g)(1) constrained demand for SWP by imposing a limit on its use and the Monterey Amendment removed the constraint on use when it eliminated Article 21(g)(1). The Department believes that the elimination of Article 21(g)(1) from the long-term water supply contracts had little or no effect on water demand in the SWP service area and so the baseline as presented in the DEIR is accurate. The following is a summary of the discussion of Article 21(g)(1) in FEIR Subsection 9.2.5.2. See also FEIR Subsection 6.1.2.3.3 for more discussion on reducing demand in the baseline. Article 21(g)(1) was designed to prevent the establishment of permanent agricultural crops based on Article 21's provision for delivery of scheduled surplus water. It was considered reasonable to delete it from the contracts as part of the Monterey Amendment when the "scheduled surplus water" provisions were deleted. Scheduled surplus water had not been available for about nine years prior to the Monterey Amendment. Unscheduled (interruptible) water was infrequently available in that same period (1987-1995), and it was unlikely that anyone thought that intermittent

Article 21 water would be used to support development of an economy in agricultural or M&I areas.

The Department has never refused to deliver water based on Article 21(g)(1). It is difficult to know whether Article 21(g)(1) ever had much effect on water demand. Such a determination would be difficult and require consideration of many factors. As discussed in FEIR Subsection 8.2.2.2, even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities, local water resources and local water use and it is questionable whether the Department has the ability or the authority to identify and monitor or regulate each individual decision made by local government. Although the Department is aware of storage of Table A and Article 21 water which may lead to additional local development due to the drought "buffer" from additional stored supplies, the Department is not aware of any local water supplier or local governmental agency that relies upon "the sustained delivery of surplus water" to support the development of a local economy.

#### 6.1.2.3.5 Article 21 Water Deliveries

Comments addressed in this subsection include: 21-16, 30-34, and 30-139.

Several comments state that deliveries of Article 21 water to M&I contractors have increased since implementation of the Monterey Amendment and claim that this means that municipal demand for Article 21 water must have increased. They also claim that this increase in demand should not be included in the baseline scenario. The Department believes that total demand for Article 21 water is the same under the baseline scenario and with the proposed project although more Article 21 water is allocated to M&I contractors under the Monterey Amendment. See FEIR Subsection 14.2.4 on availability of Article 21 water and Subsection 14.2.5 on Monterey-induced changes to Article 21. However, the water supply management practices facilitated by the Monterey Amendment could increase actual deliveries of both Table A and Article 21 water to the M&I contractors. This increase would be expected and is treated as an effect of the proposed project in Chapter 6 of the DEIR. See FEIR Subsections 15.2.2.2 and 8.2.4.

### 6.1.2.4 Delta Impacts

#### 6.1.2.4.1 Regulatory Constraints and Climate Change

Comments addressed in this subsection include: 30-34, 30-35, 30-140, 42-2, and 64-19.

Some comments state that the baseline inappropriately excludes constraints on SWP operations imposed by the federal Endangered Species Act and the California Endangered Species Act. The baseline includes environmental constraints on the operations of the SWP that were in effect when preparation of the DEIR began in 2003. Environmental conditions for Delta fisheries have declined since the baseline was established and environmental constraints which were in place at the time the baseline was established have changed. However, the same operating constraints are included in the proposed project scenario and all the other alternatives including the no project alternatives. The DEIR updates the discussion of Delta fisheries and actual and potential regulatory changes. A revised baseline would not change the comparative differences between the proposed project and alternatives. To the extent that more stringent restrictions are placed on SWP export operations from the Delta, impacts on the Delta would be reduced. See the discussion in FEIR Subsections 7.2.2.1 and 7.2.2.3 on the effect of regulatory environmental constraints, and in FEIR Subsection 6.3.2.3 on the place of regulatory environmental constraints in the CALSIM analysis.

Some comments also state that the baseline should include the effects of climate change. Variations in climate change would not change the analysis of the effect of the proposed project on the environment although it is possible that impacts would be less if requests and deliveries were also less. To the extent that climate change reduces the amount of water available for SWP export from the Delta, impacts from the Monterey Amendment on the Delta would be reduced. See FEIR Subsection 6.2.2.2. The DEIR did not include the effects of climate change in either the baseline or proposed project scenarios. Instead, a separate analysis of its effects was made and included in Chapter 12 of the DEIR. See also FEIR Chapter 12 on Climate Change.

### 6.1.2.4.2 Delta Pumping

Comments addressed in this subsection include: 21-16, 30-139, and 64-19.

A comment notes that the baseline in the original EIR on the Monterey Agreement, certified in 1995 and subsequently found inadequate by the courts, is now dated. The baseline and the environmental setting for this DEIR were based on conditions in 1995 and 2003. See FEIR Subsection 6.1.2.1. Although FEIR Chapter 7.2 on Fisheries updates both regulatory and environmental changes since then, these changes would not change the baseline. Current regulatory constraints on Delta export pumping are more stringent than the 2003 conditions used in the DEIR, and future SWP deliveries are likely to be substantially reduced compared to 2003 conditions. If the DEIR overestimates deliveries, the consequence is that it also overestimates environmental impacts. See FEIR Subsection 7.2.2.1.3.

The comment also suggests that there should be a tie-in with the California Water Plan. The estimates of future water deliveries in the DEIR are similar to but not identical with those in the latest update to the California Water Plan. They are not identical because different assumptions were used in the recent CALSIM II runs for the California Water Plan as compared to the runs made for the DEIR beginning in 2003. In addition, CALSIM II itself has been incrementally improved since 2003. Any resulting differences would be small and would not materially change any of the analyses used in the DEIR. As noted above, current regulatory constraints on Delta export pumping are more stringent than the 2003 conditions used in the DEIR, and future SWP deliveries are likely to be substantially reduced compared to 2003 conditions.

Another comment states that the baseline is confusing. The Department recognizes that the baseline for this DEIR is more complex than the baseline in most EIRs. See the discussion FEIR Subsections 6.1.2.1 and 6.1.2.2. The comment points to various water export numbers and claims that the baseline masks the increase in pumping allowed by the Monterey Amendment. The CALSIM II model was used to estimate total SWP deliveries under the baseline scenario; that is, a scenario in which the proposed project is not implemented and the SWP is operated in accordance with the pre-Monterey Amendment long-term water supply contracts.

Total average annual deliveries under 1995 conditions were estimated to be about 2.9 million AF (see DEIR, Appendix F). Total average annual baseline deliveries would increase to about 3.1 million AF in 2003 and to 3.32 million AF in 2020 (see DEIR Chapter 6, pages 6-32 and 6-38). Except for the cumulative total amount of 44,000 AF, these increases are not related to changes made as a result of the Monterey Amendment, but are the result of factors such as population increases; decreases in other water sources, such as the Colorado River due to the QSA; and wetter years which provide greater opportunities for Delta export pumping. See discussion in FEIR Subsections 6.3.2.1, 15.2.2, 15.2.3.1, and 15.2.3.3.

### 6.1.3 Responses to Comments

#### Response to Comment 15-2

The comment states that the DEIR should state that Semitropic Water Storage District, as lead agency, prepared (along with MWDSC as responsible agency) and certified an EIR and took other actions required by CEQA with respect to the 1 million AF Semitropic Water Bank, in 1994 before the Monterey Amendment. It also asks that the EIR clarify whether the baseline includes the full 1 million AF and suggests that if it does not, it should. The DEIR included the 350,000 AF approved prior to the Monterey Amendment in the baseline. See FEIR Subsection 6.1.2.3.2.

#### Response to Comment 15-3

The comment states that if the DEIR does not include the full 1 million AF in the baseline, it should be included in the no project alternative. The DEIR included the 350,000 AF approved prior to the Monterey Amendment in the baseline. See FEIR Subsection 6.1.2.3.2.

See also Response to Comment 15-3 in FEIR Chapter 11 on why the remainder was included in the proposed project but not in the no project alternative.

#### Response to Comment 16-46

The comment requests that the reference to the "Quantitative Settlement Agreement" in the second to the last sentence of the first paragraph on page 5-2 of the DEIR be corrected to refer to the "Quantification" Settlement Agreement. The second to the last sentence of the first paragraph on page 5-2 of the DEIR is revised to read as follows:

> … The Table A transfers include transfers from MWDSC to Coachella Valley WD and Desert WA pursuant to the Colorado River ~~Quantitative~~ Quantification Settlement Agreement and transfers from Tulare Lake Basin WD to other SWP contractors. …

#### Response to Comment 17-9

The comment states that the DEIR seems to confuse the baseline conditions with those of the no-project conditions rather than comparing a set of alternatives against both the baseline and the no-project conditions. It states that in this case, the DEIR ends up comparing a number of scenarios which all assume virtually the same amount of exports and deliveries.

See FEIR Subsections 6.1.2.1 and 6.1.2.2 for discussion of the baseline and no project conditions. See also FEIR Subsections 6.1.2.3.2 and 6.1.2.3.3 for discussion of specific issues raised regarding assumptions. See FEIR Chapter 11 for a discussion on alternatives. See FEIR Subsection 13.2.2 for a discussion of no project alternatives and why they all assume similar exports and deliveries.

#### Response to Comment 21-15

The comment states that the DEIR confuses the concept of baseline with the concept of no project alternative. See FEIR Subsections 6.1.2.1 and 6.1.2.2 for discussion of the baseline and no project conditions. See also FEIR Subsections 6.1.2.3.2 and 6.1.2.3.3 for a more detailed description of what actions are included in the baseline and why. FEIR Subsection 6.1.2.3.3 clarifies that the change included in the baseline due to population growth and demand is primarily the assumption that SWP contractors would request full Table A amounts in 2020

based on service needs not related to the Monterey Amendment. For further clarification of issues relating to demand, see FEIR Subsection 6.1.2.3.3 for demand in the baseline, 6.3.2.4 on Table A amounts, 14.2.2.3 on contractor requests for water, 15.2.3 on whether the Monterey Amendment increased demand and 11.2.4.1 on why alternatives that would reduce demand were rejected.

See also Response to Comment 21-5 in FEIR Chapter 6.2 on using the 2020 instead of a later date.

### Response to Comment 21-16

The comment states that the DEIR shows there have been increased deliveries of water since "interim implementation of the project" and suggests that this "is presumably a reflection in changed patterns of demand." It says the baseline scenario fails to account for these changed patterns of demand. See FEIR Subsections 6.1.2.3.3, 6.1.2.3.5, and 6.1.2.4.2. For clarification of issues relating to demand in the baseline see also FEIR Subsection 6.1.2.3.3, for discussion on Table A amounts see FEIR Subsection 6.3.2.4. See FEIR Subsection 14.2.2.3 on contractor requests for water, Subsection 15.2.3 on whether the Monterey Amendment increased demand, and 11.2.4.1 on why alternatives that would reduce demand were rejected.

### Response to Comment 21-17

The comment states that the DEIR fails to back out all aspects of the project from the various baseline scenarios described in Chapter 5. See FEIR Subsection 6.1.2.3.2.

### Response to Comment 30-5

The comment states that the DEIR improperly inserts key components of the Monterey Amendments into the project baseline. See FEIR Subsection 6.1.2.3.2.

### Response to Comment 30-34

The comment states that the DEIR analysis is predicated on a defective environmental baseline.

It criticizes the following assumptions:

- Fact that the baseline has been adjusted to include some events that occur over time that are not related to the Monterey Amendment and Settlement Agreement. See FEIR Subsection 6.1.2.1 on baseline in general. For assumptions regarding demand, see FEIR Subsections 6.1.2.3.3 and 6.1.2.3.5. For further clarification of issues relating to demand, see FEIR Subsection 6.3.2.4 on Table A amounts, Subsection 14.2.2.3 on contractor requests for water, Subsection 15.2.3 on whether the Monterey Amendment increased demand, and Subsection 11.2.4.1 on why alternatives that would reduce demand were rejected.
- The treatment of Article 21(g)(1) in the baseline: see FEIR Subsections 6.1.2.3.4 and 9.2.5.2.
- The analysis of allowable operations under the current regulatory setting: see FEIR Subsections 6.1.2.4.1, 7.2.2.1.1, and 7.2.2.1.3.
- The treatment of climate change: see FEIR Subsection 6.1.2.4.1. See also FEIR Section 6.2 and FEIR Chapter 12.

The comment also incorrectly stated that the pre-Monterey contracts precluded SWP contractors from storing water outside of their own service areas. See the Response to Comment 30-34 in FEIR Chapter 15.

Footnote 38 of this comment suggests that the EIR analysis should be extended from 2020 to 2035. See the Response to Comment 30-34 in FEIR Chapter 6.2.

## Response to Comment 30-35

The comment states that the final decision must reflect and address SWP and environmental conditions as they exist now, rather than freezing them in 1995 or 2003. It states that the DEIR fails to include the recent ruling on the delta smelt and it suggests that the next biological opinion will impose permanent restrictions that are similar or more stringent than the interim remedy of the court. It states that the ruling demonstrates that existing operations, as modeled in the DEIR, are unlawful and that any conclusions included in the DEIR regarding deliveries of Article 21, Turnback Pool water and other water deliveries in the winter and spring are now inaccurate.

It is true that the DEIR does not reflect the current regulatory framework with respect to the Sacramento-San Joaquin Delta. However, this does not affect the adequacy of the EIR. The DEIR discussed Judge Wanger's ruling in May 2007 on the FWS Biological Opinion on Delta smelt and the FEIR has updated more recent decisions with regard to regulatory actions related to Delta fisheries. The DEIR presented information regarding future environmental impacts of the proposed project under a regulatory scenario in effect in 2003 that had fewer protective restrictions on Delta export pumping than exist today. Estimated future exports are expected to decrease and any resulting impacts are likely to be less under the regulatory restrictions in effect as of June 2009 and therefore no new environmental impact analysis is required. See FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3. See also FEIR Subsection 6.1.2.4.1.

## Response to Comment 30-71

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-71 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in November 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document questions the way the Settlement Agreement was included in the proposed project scenario. The Monterey Amendment came into effect in 1996. Between 1996 and 2003 the proposed project scenario includes the provisions of the Monterey Amendment. From 2003 onward, the proposed project scenario includes the provisions of both the Monterey Amendment and the Settlement Agreement, the latter coming into effect in 2003.

## Response to Comment 30-134

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor

Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-137 is a memorandum provided to the Department by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the memorandum provided comments on an interim product, a table of assumptions for CALSIM II simulations, distributed at an EIR Committee meeting. The comments contained in the memorandum were considered and addressed in the DEIR during its preparation. The final assumptions are contained in Table 5-3 in the DEIR. See also DEIR Appendix F, including Table 1 of that appendix. The responses below follow the numbering in the memorandum.

1. The comment requests an explanation of Table A request assumptions. The explanation is provided in Chapter 6 of the DEIR (page 6-28) and DEIR Appendix F (pages 6-12). See also FEIR Subsection 6.1.2.3.3.

2. The comment questions how the turnback pool will be reflected in the model runs. Neither the turnback pool nor any of the other water supply management practices are simulated by the CALSIM II model. The environmental effects of the turnback pool and the other water supply management practices were analyzed using historical data. See DEIR Section 5.4 (page 5-5) and Section 5-5 (pages 5-7). See also revised DEIR Appendix I (FEIR Appendix B) and DEIR Appendix K (Historical Studies 1 and 2).

3. The comment states that the demand for non-project water may have been affected by the Monterey Amendment because the Monterey Amendment includes provisions that guarantee that the Department will wheel non-project water through its facilities. The Department does not agree. The California Water Code requires that the Department wheel non-project water through its facilities when it can do so without harming SWP operations. The Monterey Amendment clarified the terms under which wheeling of non-project would occur but is not expected to either encourage or discourage the practice. See FEIR Subsection 15.2.7.

4. The comment asks how the changes in priority for use of Article 21 water will be reflected in the analysis. In the baseline scenario, deliveries of Article 21 water for agricultural and groundwater replenishment purposes were given priority over municipal purposes as called for by the pre-Monterey Amendment long-term water supply contracts. Under the proposed project, deliveries of Article 21 were made in proportion to Table A amounts as called for in the post-Monterey Amendment long-term water supply contracts. These changes are discussed in Chapter 6 of the DEIR. Details are provided in Appendix F of the DEIR.

5. The comment states that Article 21 requests may not be the same for the proposed project as for the baseline. The Department would allocate Article 21 water differently under the baseline than with the proposed project because the Monterey Amendment changed the terms of the long-term water supply contracts that relate to Article 21. This allocation difference is reflected in the analysis for the DEIR. See response to Item 4 above. The comment also asks how physical changes such as the East Brach Enlargement and Diamond Valley Reservoir will be treated in the baseline and proposed project scenarios. These facilities are changes unrelated to the Monterey Amendment. Diamond Valley Reservoir is a MWDSC storage facility in the service area that was completed before the NOP and would be available for storage both in the baseline and

the proposed project. It did not exist during the first part of the historical analysis period, however, and was being filled during the latter years of that period. The East Branch Enlargement is included in the 2020 analysis (Table 5-3) and is also discussed in the Cumulative Impacts analysis (DEIR Chapter 10).

6. The comment states that PCL is skeptical that local storage in Kern County would be the same for the proposed project as under the baseline scenario. The Department reviewed the potential for recharge of water delivered to the KWB Lands with available capacity in other Kern Fan projects and believes that all SWP water delivered to the KWB Lands by KWB participants located within Kern County could have been delivered to KCWA if the Monterey Amendment's transfer of the KFE property had not happened. Storage by Dudley Ridge WD, the only KWB participant that is not located within Kern County is analyzed as storage outside-the-service-area. See FEIR Subsection 16.2.7.

7. The comment raises questions about how the KWB is treated in the various studies. Under the proposed project and NPA 2, the KFE property would be transferred to local ownership and a locally-owned water bank built there. The other option, a state-owned water bank in the KFE property is assumed in NPA 1 and Court-Ordered No Project Alternatives 3 and 4. See also FEIR Chapter 16 on the KWB.

8. The comment raised questions about storage outside the service area and carry over storage. Storage outside the service area and carry-over storage are covered as part of the water supply management practices analysis in the DEIR. See DEIR Chapter 6 for the effect on SWP and SWP contractor operations and DEIR Chapter 7 for impacts in specific resource areas. See also FEIR Subsections 15.2.2 and 15.2.4.

9. The comment asks for a discussion of the assumptions behind the proposed non-project water amounts. CALSIM II does not simulate the conveyance of non-project water. Table 6-2 in the DEIR lists the transfers of non-project water that occurred between 1987 and 2005. Because the Monterey Amendment neither encourages nor discourages wheeling of non-project water it would have no effect on the magnitude and frequency of non-project water conveyance by the SWP. See FEIR Subsections 15.2.7 and 6.1.2.3.2.

## Response to Comment 30-139

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-139 is a letter provided to the Department by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the comment states that it is customary for the baseline in EIRs to be defined as current or pre-project conditions and that the baseline in the DEIR could more accurately be described as a future expectation rather than a historical benchmark. See DEIR Section 5.3 on the Environmental Setting and Baseline. See also FEIR Subsections 6.1.2.1 and 6.1.2.2. In addition, the comment questions various elements regarding the baseline. The comment:

- States that the draft considered full build-out of the SWP project as baseline. This comment is not correct. See DEIR Table 5-3 that shows the analysis considered

existing facilities and Coastal Branch and East Branch enlargement. The water supply analysis in DEIR Chapter 6, as updated in FEIR Chapter 2, shows that in some years over 43.5 million AF of SWP water can be delivered and in other years, deliveries may be substantially less.

- States that the draft does not reflect implications of the original contract that prevented storage of SWP water outside of SWP service area. The original contract did not prevent storage of SWP water outside of the SWP service area. See FEIR Subsection 15.2.4. See also FEIR Subsection 6.1.2.3.2 regarding whether any proposed projects are in the baseline. The DEIR environmental analysis, however, assumed that all of the impacts from the water supply management practices of the Monterey Amendment, except for transportation of non-project water, were new impacts attributable to the Monterey Amendment. This assumption provides a worst case analysis that would show the maximum impacts. See FEIR Subsection 15.2.2. See also the Response to Comment 30-139 in FEIR Chapter 15 for a discussion of storage outside the service area prior to the Monterey Amendment.
- Questions analysis of contractor demand. See FEIR Subsections 6.1.2.3.3, 6.1.2.3.5, and 6.1.2.4.2. Storage outside the service area combined with the other water supply management practices increased deliveries by a small amount. Most increases in Delta export pumping since 1995 are not related to the Monterey Amendment. See FEIR Subsection 15.2.2 for a discussion of when and how the water supply management practices increased Delta exports and deliveries. See also FEIR Chapter 8 on how storage outside of contractor service areas may have affected demand.
- Questions analysis of Article 21(g)(1). See FEIR Subsections 6.1.2.3.4 and 9.2.5.2. See also Response to Comment 30-34.
- States that the baseline assumes that the Department will operate the SWP to meet contractor requests regardless of contract provisions and that contractor requests are not influenced by contract provisions limiting use or ability to take water. Under the baseline scenario, it is assumed that the Department would operate the SWP in accordance with the pre-Monterey Amendment long-term water supply contract provisions and within the regulatory constraints existing in 2003. With the proposed project, it is assumed that the Department would operate the SWP in accordance with post-Monterey Amendment long-term water supply contract provisions and the 2003 constraints. With the proposed project, it is possible that contractors would receive more SWP water unless new regulatory constraints reduce Delta exports. See DEIR Chapter 6. The baseline assumes a certain level of contractor requests or demands (see FEIR Subsection 6.1.2.3.3). Whether the SWP can deliver that level of request depends on a variety of factors, including hydrologic and regulatory conditions. See FEIR Section 6.2 and Subsection 7.2.2.1.3.

## Response to Comment 30-140

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-140 is a letter provided to the Department by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the

Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the comment states that the administrative draft fails to include climate change in the baseline or the alternatives analysis. See FEIR Subsection 6.1.2.4.1 and Response to Comment 30-140 in FEIR Chapter 12 on Climate Change.

## Response to Comment 36-2

The comment states that the baseline does not accurately reflect pre-Monterey contract provisions that set limitations for contractors. See FEIR Subsections 6.1.2.2, 6.1.2.3.2, and 6.1.2.3.4. It also states that:

- The baseline does not accurately describe the environmental setting. The environmental setting is described for each resource impact discussion in DEIR Chapter 7 for 1995 (past) and for 2003 (present).
- Increased pumping has occurred as a result of allowing water to be stored outside of a contractor's storage area. Storage outside the service area increased deliveries by a small amount. Most increases in pumping since 1995 are not related to the Monterey Amendment. See FEIR Subsection 15.2.3.
- The proposed project has induced growth in Southern California. The DEIR concluded that the Monterey Amendment could be growth-inducing. See DEIR and FEIR Chapter 8.
- The DEIR should disclose, mitigate and develop alternatives for avoidance of pumping scenarios that impact endangered fish species. The EIR discloses and provides mitigation for pumping scenarios that might impact endangered species. It also identified alternatives that would avoid impacts. See DEIR Section 7.3. See also FEIR Subsection 7.2.2.1.3 and Chapter 11.
- The DEIR must include and analyze supply reductions as a result of recent court decisions. Recent court and regulatory decisions will reduce pumping and therefore impacts. See FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3.

## Response to Comment 42-2

The comment states that the baseline is outdated due to changes in the environment and water supply and quality and suggests a tie-in with Bulletin 160. See FEIR Subsection 6.1.2.4.1. See also FEIR Subsections 17.2.5.1 and 17.2.5.3.

## Response to Comment 64-19

The comment states that the baseline is confusing, raises questions about increases in pumping from the Delta since 1995, about Article 18 and on "paper water." See FEIR Subsections 6.1.2.1, 6.1.2.2, 6.1.2.4.1, and 6.1.2.4.2 on the baseline. See also FEIR Chapter 13 on Article 18, Chapter 9 on reliability of water supplies and growth, and Subsection 15.2.3 on demand and increases in pumping since 1995 which are not related to the Monterey Amendment.

## 6.2 CHANGED CONDITIONS

# 6.2 CHANGED CONDITIONS

## 6.2.1 Introduction

The following responses address comments regarding the effects of the proposed project on ongoing conditions and activities, on changing conditions relating to climate change and hydrologic changes and the timeframe described in Chapter 5 of the DEIR. Comments covered several primary issues including: the DEIR should have analyzed the effects of the proposed project on ongoing conditions and activities and of the conditions and activities on the proposed project; that the DEIR failed to analyze the effect of changes in future conditions on the proposed project or the effect of the proposed project on future changed conditions, such as demands for water by the SWP contractors, climate change and other changes in hydrologic conditions, changes in regulatory requirements in the Delta and elsewhere, and increases in diversions by areas of origin and other water users; and that 2020 is an inadequate analysis period, in part due to impacts of climate change on the SWP, and because other SWP documents analyze scenarios extending to 2035.

The Master Response is organized by the following subtopics:

6.2.2.1 Ongoing Conditions and Activities
6.2.2.2 Changing Climate and Hydrologic Conditions
6.2.2.3 Time Frame of 2020

Some of the comments received on the DEIR's discussion of changing conditions are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Subsection 6.2.3 of this section immediately following the master response. Individual responses to comments which are fully addressed by the master response include references to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This Section addresses the following comments: 16-105, 19-3, 21-15, 21-55, 26-9, 30-34, 30-91, 47-3, and 62-9.

## 6.2.2 Master Response

### Summary

Some comments stated that the DEIR should have analyzed the effects of the proposed project on ongoing conditions and activities. Examples of ongoing conditions and activities include water conditions and water management programs in the northern Sacramento Valley and water banking activities in Kern County. A number of comments stated that the DEIR failed to properly consider the impact of observed and predicted climate change and altered hydrologic conditions in California as they affect the EIR analyses and the operation of the SWP with respect to the Monterey Amendment. These issues are discussed below. Changes other than hydrologic and climate change are discussed in other Chapters of the FEIR. Increases in demand of SWP contractors in the baseline is discussed in FEIR Subsection 6.1.2.3.3; reduced

demands for water by the SWP contractors through conservation and other means is discussed in FEIR Subsections 15.2.3 and 11.2.4; regulatory protection in the Delta and elsewhere is discussed in FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3; and increased diversions by area of origin and other water users is discussed in FEIR Subsection 13.2.5.

The underlying fundamental purpose of the Monterey Agreement and the Monterey Amendment is to resolve conflicts and disputes between and among the urban and agricultural SWP contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. One key objective of the Monterey Agreement and the Monterey Amendment is to facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies. The primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits. See FEIR Subsection 5.2.1.2.

The terms of the long-term water supply contracts, including the Monterey Amendment, do not determine how the Department will operate the SWP facilities to meet regulatory requirements, but determine how SWP supplies and costs are allocated among the contractors. The terms may also determine how exported water is managed and where SWP contractors might store SWP water (if it is to be stored) if they have been allocated sufficient SWP water to store after meeting current needs. To the degree that hydrologic and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. The Monterey Amendment cannot and does not change hydrologic conditions or regulatory requirements in effect at the time of export, including applicable permits and constraints to protect water quality and listed fish species. See FEIR Subsection 5.2.1.2.

Ongoing conditions and activities are part of the environment in which the proposed project will operate and may affect the magnitude of impacts of the proposed project on the environment. These conditions and their effect on the proposed project or the proposed project's effect on them were discussed in the DEIR. The analysis in the DEIR did not identify any significant impacts of the proposed project on ground water or surface water in the Sacramento or San Joaquin Valley outside of the Delta. The Department recognizes, however, that current and future operations and activities of the SWP and its contractors may have an impact or be affected by ongoing conditions and activities in these areas.

Hydrologic change and climate change can be characterized as a change in future conditions under which the proposed project will operate. The proposed project does not cause these changes to occur. However, these future conditions have the potential to influence the "environment" in which the proposed project operates and may affect the magnitude of future impacts of the proposed project on the environment. Future impacts on the Delta would likely be less than those predicted in the DEIR because there would be fewer years in which San Luis Reservoir would fill, there would be fewer opportunities to pump water for programs such as storage outside of a contractor's service area, and the SWP contractors would realize fewer water supply benefits of the proposed project. Reduced supplies from the Delta might result in more use of the flexible storage provisions relating to Castaic Lake and Lake Perris. However, the DEIR analysis for these provisions analyzes the worst case scenario, so no further analysis is necessary.

In effect, the EIR overstates the impacts of the water supply management methods of the proposed project on the Delta under scenarios where less water is available to be allocated by the Department due to climate change, loss of Delta export capacity, dry hydrology, increased

regulatory constraints, or related factors. In addition, many of the impacts of the water supply management methods have been quantified during a period when contractor requests have been less than full Table A, thereby allowing banking of some of their water supplies, and thus impacts may be overestimated for future conditions.

If the Department were beginning the Monterey Plus analysis now, it would probably use the year 2035 instead of 2020 since this is the time frame for Department environmental documents begun within the past year. However, the Department believes the time frame selected for analysis is adequate for full analysis and disclosure of the impacts of the proposed project and a new analysis to 2035 is not necessary. A longer period of analysis would not identify any new impacts or define any increase in the severity of those impacts already analyzed.

### 6.2.2.1 Ongoing Conditions and Activities

Comments addressed in this Subsection include: 16-105, 19-3, 47-3, and 62-9.

Ongoing conditions and activities are part of the environment in which the proposed project will operate and may affect the magnitude of impacts of the proposed project on the environment. These conditions and their effect on the proposed project or the proposed project's effect on them were discussed in the DEIR. The DEIR did not identify any significant impacts of the proposed project on ground water or surface water in the Sacramento or San Joaquin Valley outside of the Delta. The Department recognizes, however, that current and future operations and activities of the SWP and its contractors may have an impact on or be affected by ongoing conditions and activities in these areas. Some of these activities include the Sacramento Valley Water Management Plan (Phase 8), the Yuba County Water Agency transfer of water, the Sacramento Valley Integrated Water Plan, and various efforts by SWP contractors and others to purchase Sacramento Valley water. These projects and activities may affect the environment and the effects are discussed in relevant environmental and planning documents. To the extent that there is a relationship of the environmental effects of these projects and the Monterey Amendment, it is discussed in Chapter 10 of the DEIR and Chapter 10 of this FEIR.

### 6.2.2.2 Changing Climate and Hydrologic Conditions

Comments addressed in this Subsection include: 21-55, 26-9, 30-34, and 30-91.

Hydrologic change and climate change can be characterized as a change in future conditions under which the proposed project will operate. The proposed project does not cause these changes to occur. However, these future conditions have the potential to influence the "environment" in which the proposed project operates and may affect the magnitude of future impacts of the proposed project on the environment. Climate change and its effect on the proposed project or the proposed project's effect on it are discussed in Chapter 12 of the DEIR and FEIR.

Some of the comments addressed the issue of how climate change could result in future changes in Delta inflow and hydrology, changing baseline conditions and future operations of the SWP. The analysis for the proposed project in the DEIR (Chapter 6) evaluates the allocation of water that is available each year under a full range of hydrologic conditions that show what supplies would be available to which contractors in any given year type. To the extent that climate change alters hydrologic conditions, including precipitation patterns, snowmelt runoff and timing, and reservoir storage efficiency, there will likely be less water to allocate in most years. The modeling studies in the DEIR compare the proposed project and alternatives to the baseline to estimate what might happen under certain conditions. The

analysis of the proposed project evaluates the full range of potential supply availability, including very dry and wet years, and analyzes the impacts. Tables A-4a through A-6f of DEIR Appendix F include quantified impacts of climate change as part of the CALSIM analysis of the revised allocation methods, Table A transfers, and Table A retirement. The tables indicate how deliveries would be affected by climate change in the five hydrologic year types evaluated in the EIR.

One effect of climate change could be a decrease in average annual supplies given the current configuration of the SWP. Although supplies could decrease, demands are likely to continue to increase. See discussion in FEIR Subsection 14.2.2.3. That effect would be reflected in more dry and critically dry years, year types that are fully analyzed in the EIR, resulting in less water to allocate. Another effect of climate change would be a predicted increase of the sea level affecting the Delta. If sea level rise were to further limit exports beyond the effects of other hydrologic influences, such as by requiring greater releases of reservoir water to maintain Delta water quality, there could be even less water to allocate. See also DEIR Chapter 12, Climate Change, where the effects of climate change on water allocations are discussed in more detail, especially the discussion in Section 12.8. See also Chapter 12 of this FEIR on Climate Change. Water supplies available for allocation may decrease in future years for other reasons, including regulatory controls that result in reductions in Delta exports. See FEIR Subsection 7.2.2.1.3.

Other than the amount of water that would be allocated in any given year, the analysis of how these changes affect the SWP would not change. While there would be more years of lower available water supply, the allocation procedures remain the same. The only impact on the Delta from the Monterey Amendment comes from slightly increased average Delta exports attributable to the water supply management practices, particularly storage outside the service area. One of the results of more dry and critically dry years is that many of the impacts of the water supply management methods are likely to decrease as well. Although the impacts of the proposed project may decrease in the future below those levels evaluated in the EIR, the magnitude by which impacts would decrease and the rate of such decreases are not readily predictable.

Future impacts on the Delta would likely be less than those predicted in the DEIR because there would be fewer years in which San Luis Reservoir would fill, there would be fewer opportunities to pump water for programs such as storage outside of a contractor's service area, and the SWP contractors would realize fewer water supply benefits of the proposed project. Reduced supplies from the Delta might result in more use of the flexible storage provisions relating to Castaic Lake and Lake Perris. However, the analysis for these provisions analyzes the worst case scenario, so no further analysis is necessary. See also FEIR Chapter 15 and Chapter 7.2.2.1.3 for more information on impacts of the water supply management practices on the Delta.

In effect, the EIR overstates the impacts of the water supply management methods of the proposed project on the Delta under scenarios where less water is available to be allocated by the Department due to climate change, loss of Delta export capacity, dry hydrology, increased regulatory constraints, or related factors. In addition, many of the impacts of the water supply management methods have been quantified during a period when contractor requests have been less than full Table A, thereby allowing banking of some of their water supplies, and thus impacts may be overestimated for future conditions.

EIRs are expected to evaluate impacts that are reasonably foreseeable. The DEIR may overstate the amount of water that is available for allocation to the SWP contractors because current regulatory constraints on Delta export pumping are more stringent than the 2003

conditions used in the DEIR and future SWP deliveries are likely to be reduced compared to 2003 conditions. If the DEIR overestimates deliveries, the consequence is that it also overestimates environmental impacts. In an environmental disclosure document such as an EIR, it is better to overstate than to understate the potential impact so that the public and decision-makers can see the full environmental extent of their decisions.

Some comments appear to express a concern that local governments and other decision-makers might rely on the EIR delivery estimates in determining the reliability of SWP water. Overstating the amount of water available could be a problem in documents that are relied upon for determining water reliability. The values in this EIR analysis should not be used to estimate current available SWP water or the reliability of future deliveries. There are other tools that are intended to help determine the reliability of water such as Urban Water Management Plans and the Reliability Report released by the Department. See FEIR Chapter 9 on water supply reliability.

### 6.2.2.3 Timeframe of 2020

Comments addressed in this Subsection include: 21-15, 26-9, and 30-34.

Some comments argued that the 2020 future date described in Chapter 5 is an inadequate analysis period, in part due to impacts of global warming on the SWP. Some comments also point out that other SWP documents analyze scenarios extending to 2035.

If the Department were beginning the proposed project analysis now, it would probably use the year 2035 instead of 2020 since this is the time frame for Department environmental documents begun within the past year. However, the Department believes the time frame selected for analysis is adequate for full analysis and disclosure of the impacts of the proposed project and a new analysis to 2035 is not necessary. As described in the DEIR on page 5-1, “[T]he Department chose the year 2020 as the endpoint for the analysis because many other Department programs and planning processes underway in 2003 were using 2020 as their planning horizon. Use of 2020 as the planning horizon is appropriate for analysis of the Monterey Amendment because it is expected that the SWP contractors will need their maximum Table A amounts before that date. Furthermore it is expected that the Settlement Agreement will be fully implemented by 2020. Also use of 2020 as the planning horizon does not require excessive speculation.”

A longer period of analysis would not identify any new impacts or define any increase in the severity of those impacts already analyzed. As noted in FEIR Subsection 6.2.2 and addressed in Subsection 6.4.5 of the DEIR on page 6-65, the impacts of the proposed project may decrease in the future below those levels evaluated in the DEIR because of increasingly stringent Delta export constraints and other changes, although the magnitude by which impacts would decrease and the rate of such decreases are not readily predictable.

Extending the timeframe of the EIR analysis would not make a difference in determining the effect of the altered water allocation procedures or water supply management practices. The Monterey Amendment provides a method to allocate water and it provides various management measures regarding where water may go if it is available. These allocation methods and management measures will not change over a longer period of time, even though the quantity of water to which they are applied may vary considerably.

The 2020 modeling assumptions assume that the demands of the SWP contractors are for their full Table A deliveries in all but the wettest years plus added water (Article 21 water) when

available (DEIR Table 5-3). In 2001 and from 2003 to the present, all SWP contractors have been requesting delivery of their entire Table A amounts every year and these full requests are likely to prevail through 2020 and beyond. This demand increase is independent of the changes that are a part of the proposed project. DEIR Section 2.4 (page 2-9) and Subsection 6.3.1 (page 6-12). See also FEIR Subsection 14.2.2.3. This situation is likely to prevail through 2035 (when the SWP long-term water supply contracts expire) and demand for SWP supplies is unlikely to decrease considering the consistent increase in population within the SWP service area and reduced water supplies form other sources. See FEIR Subsection 15.2.3 for more discussion on SWP demand.

### 6.2.3 Responses to Comments

#### Response to Comment 16-105

The comment raises the question of whether flooding of Tulare Lake is natural or human-related. The flooding is natural. See FEIR Subsection 6.2.2.1. See also Response to Comment 16-105 in FEIR Chapter 7.3.

#### Response to Comment 19-3

The comment suggests that the EIR should discuss groundwater planning efforts and conjunctive use in the Sacramento Valley. See FEIR Subsection 6.2.2.1. See also Response to Comment 19-3 in FEIR Section 7.1 and Response to Comments 19-3 and 19-6 in FEIR Chapter 10.

#### Response to Comment 21-15

The comment suggests that the EIR period of analysis should be extended from 2020 to 2035. See FEIR Subsection 6.2.2.3. See also Response to Comment 21-15 in FEIR Section 6.1 Baseline.

#### Response to Comment 21-55

The comment suggests that climate change be incorporated in the EIR analyses. See FEIR Subsection 6.2.2.2. See also Response to Comment 21-55 in FEIR Chapter 12.

#### Response to Comment 26-9

The comment states that the time frame of the DEIR is too short to provide a comprehensive understanding of the proposed project and that this limited planning horizon fails to grapple with the effects of climate change. It also mentions "…the inflexible operational plan under the Monterey Amendment." The Monterey Amendment added flexibility in water management and increased the flexibility of both the Department and its contractors to manage the water supplies of California. See the discussion in DEIR Chapters 3 and 4 on the History and the Project. See FEIR Subsection 6.2.2.3 on the Timeframe and 6.2.2.2 on climate change.

#### Response to Comment 30-34

Footnote 38 of this comment suggests that the EIR analysis should be extended from 2020 to 2035. See FEIR Subsection 6.2.2.3. See also Response to Comment 30-34 in FEIR Section 6.1 Baseline and FEIR Chapter 15 on water supply management practices.

## Response to Comment 30-91

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-91 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document cites several court decisions and indicates that these decisions may change flows in the Sacramento and San Joaquin Rivers. The comment notes that there may be less water in the Sacramento River and more in the San Joaquin River. See FEIR Subsection 6.2.2.2. See also Response to Comment 30-91 in Chapter 7.1.

## Response to Comment 47-3

The comment states that geological reports on groundwater overstate its availability. See FEIR Subsection 6.2.2.1. See also Response to Comment 47-3 in Chapter 7.1 and FEIR Subsections 17.2.2 and 17.2.7.3.

## Response to Comment 62-9

The comment points out that water evaporates from surface reservoirs in California at a high rate and suggests that evaporative losses associated with surface water storage should be compared to the losses that occur when water flows down a river and percolates into a groundwater basin. See FEIR Subsection 6.2.2.1. See also Response to Comment 62-9 in Section 7.1 and FEIR Subsection 17.2.2.

## 6.3 METHODS

# 6.3 METHODS

## 6.3.1 Introduction

The following responses address comments on the methods used to analyze the impacts of the proposed project on water supply, including the use of the computer model CALSIM II and analyses of historical data. Comments covered areas such as claims that CALSIM II is a flawed model and is therefore an unreliable analytical tool to examine the changes due to the Monterey Amendment, the conclusions contained in the DEIR are invalid because of CALSIM II, the model is inadequate in analyzing the environmental impacts due to the Monterey Amendment, and others listed in the subsections in this chapter.

The Master Response is organized by the following subtopics:

- 6.3.2.1 Use of CALSIM II in the Monterey Plus EIR is Appropriate
- 6.3.2.2 EIR Committee Meetings and Suggestions for CALSIM II and Its Use
- 6.3.2.3 Environmental Analysis Using CALSIM II and the Historical Data Analysis
- 6.3.2.4 Specific CALSIM II Criticisms
- 6.3.2.5 Monterey Plus EIR Conclusions do not Change due to CALSIM II Limitations
- 6.3.2.6 Summary of the CALSIM II Peer Review

Some of the comments received on the DEIR associated with the use of CALSIM II in the EIR analysis are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Subsection 6.3.3 of this section immediately following the master response. Individual responses to comments which are fully addressed by the master response include references to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This Section addresses the following comments: 16-8, 16-9, 16-10, 16-11, 16-12, 21-18, 21-19, 21-20, 21-21, 21-22, 21-23, 21-25, 22-1, 22-2, 22-3, 22-4, 22-5, 22-6, 22-7, 22-8, 22-9, 22-10, 22-11, 22-12, 22-13, 22-14, 22-15, 22-27, 22-29, 22-31, 30-6, 30-36, 30-73, 30-77, 30-93, 30-106, 30-110, 30-115, 30-116, 30-117, 30-118, 30-119, 30-120, 30-122, 30-133, 30-142, 31-2, and 64-20.

## 6.3.2 Master Response

### Summary

The DEIR used two basic methods to analyze the effects of the proposed project and its alternatives on SWP operations and deliveries to SWP contractors: a historical data analysis from 1996 through 2005; and modeling using CALSIM II.

CALSIM II has attracted much scrutiny because the State and federal governments use the model to evaluate possible additions and improvements to California's water system. CALSIM II was reviewed by an external peer review panel in 2003 and the Department and Reclamation responded to the peer review report in 2004. Many of the elements of model development

features outlined in the peer review response are in progress and will be implemented in the updated version of the model, CALSIM III. The current version of CALSIM II was used in support of the analyses in this EIR.

In preparing this EIR, a modeling subcommittee of the Monterey Plus EIR Committee was formed early in the planning process to review assumptions that would be input to the model. All documentation and data sets were made available and reviewed by the subcommittee as they were developed and changes were made based on input from the subcommittee.

### 6.3.2.1 Use of CALSIM II in the Monterey Plus EIR is Appropriate

Comments addressed in this subsection include: 16-8, 16-9, 16-10, 21-18, 21-25, 22-1, 22-4, 22-6, 22-7, 22-12, 30-6, 30-36, 30-77, 30-115, 30-120, 30-122, and 64-20.

Some of these comments discuss the purpose and adequacy of the studies. Others suggest that CALSIM II is a flawed model and is therefore an unreliable analytical tool to use to examine the changes due to the Monterey Amendment. The discussion below addresses these concerns in general. Additionally, see also FEIR Subsection 6.3.2.5 for a discussion of specific criticisms of CALSIM II.

<u>Operations Studies Used in the DEIR</u>

As described in Section 5.4 of the DEIR, the Department used two basic methods to analyze the effects of the proposed project and its alternatives on SWP operations and deliveries to SWP contractors. The methods were the historical data analysis from 1996 through 2005, and modeling using CALSIM II.

CALSIM II is the planning model developed to simulate SWP and CVP operations in the Central Valley of California, and was used to examine the effects of the Monterey Amendment on SWP operations and total annual deliveries to SWP contractors over a wider range of hydrologic conditions. That hydrologic period was from 1922 through 1994. Other input data includes assumed water demand, facility size and operating constraints, Delta environmental and flow constraints, and other variables. CALSIM II was used to estimate SWP deliveries, river flows, and reservoir storage levels in wet, above normal, below normal, dry and critically dry years under conditions prevailing or expected to prevail in 1995, 2003, and 2020.

As noted in DEIR Appendix F, estimated SWP deliveries to North Bay Aqueduct and South-of-Delta contractors from the CALSIM II studies were then post-processed in Excel spreadsheets by taking total annual scheduled deliveries and total monthly unscheduled deliveries from the model study and allocating them to individual contractors according to each scenario's assumptions regarding allocation rules and transfers. Study No. 4 includes the CALSIM II model and post-processing of CALSIM II output. Changes in these deliveries relative to the baseline were then applied in Excel spreadsheet analyses to estimate flow changes in the Feather and Sacramento Rivers (Study No. 5).

The historical data was used to determine what was actually allocated in 1996 through 2005. These figures were then adjusted and recomputed to determine allocations for each SWP contractor using the actual base amount of Table A water allocated by the Department in each of the historical years, redistributed in accordance with the allocation rules specific to the baseline scenario and each alternative (Study No. 1). In addition, historical operations data was used to evaluate the effects of the water supply management practices of the Monterey Amendment (Study Nos. 2 and 3).

Several comments suggest that the addition of certain qualifications and limitations in the text in various places would be helpful in understanding how to interpret the results of the different studies. See FEIR Table 6.3-1 below, which clarifies and summarizes the purpose, benefits, and limitations of the different studies.

## CALSIM II Use is Appropriate for Comparative Studies

CALSIM II can be used in a predictive study or a comparative study. In a predictive study, CALSIM II would be used to estimate an absolute value, for example the amount of water available to the SWP in the Delta in a given month under a given set of hydrologic conditions. CALSIM II developers consider the model best used to make comparative studies rather than absolute predictions. The peer review panel agreed that CALSIM II was a good tool for comparative studies, when a "without project" scenario is compared with a "with project" scenario. In the Monterey Plus EIR, the model was not used for a predictive study; rather it was used for comparative studies of total SWP deliveries between the baseline and the proposed project, due to the proposed project's Table A retirements and transfers, and between the baseline and the alternatives. The allocation of that water under the various alternatives, including the no project alternatives was determined by Microsoft Excel spreadsheet computations. The CALSIM II model was also used to estimate the effects of the proposed project on storage in Lake Oroville and San Luis Reservoir, to estimate the base flows in the Sacramento and Feather Rivers for computing project impacts on those flows using an Excel spreadsheet to evaluate potential changes in Delta hydrodynamic conditions and water quality, and to estimate potential impacts on Reclamation's future use of JPOD. The Department determined that it was appropriate to use the model for these purposes.

## Use of CALSIM II is Coupled with Historical Analysis

Several comments contend that CALSIM II is a flawed model, and based on this contention, state or imply that its use in support of the DEIR invalidates the conclusions contained in the DEIR. For example, Comment 22-12 states that the DEIR relies strongly on CALSIM II wherever it makes quantitative findings and therefore the findings are questionable given the deficiencies in the model. The Department disagrees. In fact, the DEIR only relies on CALSIM II to estimate: total deliveries by the SWP for the various hydrologic year types under 2003 and 2020 conditions for the baseline, proposed project, and no project scenarios; to estimate the base flows in the Sacramento and Feather Rivers for computing project impacts on those flows; to estimate storage in Lake Oroville and San Luis Reservoir under varied hydrologic conditions; and to evaluate potential changes in Delta hydrodynamic conditions and water quality. Other analytical methods are used to determine the remaining operational and environmental effects of the proposed project. In the DEIR, CALSIM II was used for comparative purposes; that is, it was used to compare the amounts of water available to the SWP with and without the Monterey Amendment, Delta hydrodynamic and water quality conditions with and without the Monterey Amendment – uses consistent with the developer's recommendations. CALSIM II output was also used to estimate baseline flows in the Sacramento and Feather Rivers for estimating the effects of transfers and allocation changes on river flows. The results of the CALSIM II studies on total delivery changes by the SWP under 2003 and 2020 conditions between the baseline and the proposed project were compared to the parallel historic analysis and, although the results were somewhat different, they showed the same trend. In addition, the most significant impacts of the proposed project are attributable to the water supply management practices that are a part of the Monterey Amendment. The impacts from those practices are disclosed in two of the historical analyses (Study Nos. 2 and 3).

**FEIR TABLE 6.3-1**

**ANALYTICAL METHODS AND THEIR BENEFITS AND LIMITATIONS**

| Study | Benefits and Limitations | Possible Effect of Limitations on Results |
|---|---|---|
| **Study No. 1**<br>Analysis of allocation of historical Table A supplies from 1996-2005 (DEIR Appendix I)<br><br><u>Purpose:</u><br>Estimate allocation of Table A water among SWP contractors if Monterey Amendment had not been implemented from 1996-2005 | **Benefits**:<br>• Shows how the total Table A supply actually allocated each year from 1996-2005 would have been allocated among contractors under baseline and project alternative scenarios.<br>• Backs out Monterey-related Table A retirements and transfers, and uses allocation rules consistent with each scenario.<br>• Provides a check to compare to CALSIM allocation results.<br><br>**Limitations:**<br>• Limited hydrologic period of ten years is not representative of longer period of hydrologic record.<br>• Based on actual contractor requests for Table A water, which in some years for some contractors may have been affected by other Monterey Amendment provisions.<br>• Does not reflect effect of any year-to-year changes in available supply (e.g., with Monterey, reduction in total allocated supply due to Table A retirement could result in slightly higher available Table A supply in following year). | • Results may not be representative of results over a longer period of hydrologic record, or in the future.<br>• The effect on any one contractor in a particular year may not be representative of other similar years since each contractor's allocation is affected by the requests for Table A water of all other contractors in that year.<br>• Results in some years may show a slightly smaller shortage (i.e., higher allocation) under the baseline scenario than might actually have occurred. |
| **Study No. 2**<br>Analysis of historical operations and delivery data from 1996-2004 (DEIR Appendix K)<br><br><u>Purpose:</u><br>Estimate actual effects of almost all of the Monterey Amendment provisions on SWP deliveries and Delta pumping from 1996-2004 | **Benefits:**<br>• Estimates the actual effects from 1996-2004 of nearly all Monterey Amendment provisions combined, including the water supply management practices, based on actual SWP storage and Monterey-related deliveries to contractors.<br>• Estimates baseline scenario operations and deliveries by backing out effects of Table A retirements and deliveries made under water supply management provisions.<br>• Considers deliveries that contractors would likely have made in the absence of Monterey to then-available storage in their then-existing non-Monterey related storage programs. | • Results likely overstate the increase in deliveries and Delta pumping due to the Monterey Amendment that occurred after the transfers because the M&I contractors receiving the Table A transfers had less immediate use for the water than the agricultural contractors that transferred it. The result was a temporary reduction in deliveries and Delta pumping associated with the transferred Table A amounts that is not reflected in the analysis. |

**FEIR TABLE 6.3-1**

**ANALYTICAL METHODS AND THEIR BENEFITS AND LIMITATIONS**

| Study | Benefits and Limitations | Possible Effect of Limitations on Results |
|---|---|---|
| | **Limitations:**<br>• Does not estimate changes in total SWP deliveries or Delta exports as a result of Table A transfers from agricultural contractors to M&I contractors. The transferred Table A had been requested in full and the supplies available used by agricultural contractors prior to the transfer, but that Table A may not have been requested in full prior to 2001 or the supplies available fully used by M&I contractors after the transfer. Therefore, Table A transfers are not included in the analysis due to the speculative assumptions required to do so. | |
| **Study No. 3**<br>Analysis of historical operations and delivery data from 1996-2004, for extrapolation to 2020 conditions<br>(DEIR Appendix K)<br><br>Purpose:<br>Provide basis for estimating future effects of water supply management practices on SWP deliveries and Delta pumping | **Benefits:**<br>• Estimates effects from 1996-2004 of water supply management practices, considered in isolation from remaining Monterey Amendment provisions.<br>• Estimates baseline scenario operations and deliveries by backing out effects of deliveries made under water supply management provisions.<br><br>**Limitations:**<br>• Analysis is based on historical 1996-2004 operations and delivery data, and so does not reflect future increases in baseline deliveries to contractors that would occur due to increasing M&I contractor demands that are unrelated to the Monterey Amendment.<br>• Hydrology during the 1996-2004 period analyzed was wetter than usual.<br>• All deliveries to out-of-service area storage under the Monterey Amendment are assumed to be additional deliveries that would not otherwise have been made.<br>• Analysis does not include all Monterey provisions (includes water supply management practices, but not altered water allocation procedures and Table A transfers and retirements). | Results overstate the future increase in deliveries and Delta pumping due to the water supply management practices, because of the following:<br>• As demand increases in contractors' service areas, more allocated supply will be needed to meet contractors' immediate needs, making less water available for contractors to store or manage under these provisions.<br>• Hydrology more typical of the historic period of record would result in lower SWP supply availability and less water available for contractors to store or manage under these provisions.<br>• The analysis assumption regarding deliveries to out-of-service area storage is based on the rationale that existing non-Monterey related storage would eventually fill and out-of-service area storage would then be the only storage option. However, this assumption ignores deliveries to refill future withdrawals from existing non-Monterey related storage that would otherwise have occurred.<br>• Real-time operations are based on consideration of all provisions combined. The effects of certain Monterey provisions not included in the analysis (e.g., Table A retirements) would offset or reduce in some years the increased deliveries and Delta pumping shown in analysis results. |

**FEIR TABLE 6.3-1**

**ANALYTICAL METHODS AND THEIR BENEFITS AND LIMITATIONS**

| Study | Benefits and Limitations | Possible Effect of Limitations on Results |
|---|---|---|
| **Study No. 4**<br>Water allocation modeling using CALSIM II and spreadsheet analysis of CALSIM II output of total annual deliveries<br>(DEIR Appendix F)<br><br>Purpose:<br>Estimate deliveries of water to SWP contractors as a result of altered water allocation procedures, and transfers and retirements of Table A amounts, under 2003 and 2020 conditions | **Benefits:**<br>• Shows how total annual Table A and Article 21 water deliveries determined by CALSIM II would have been allocated among contractors under baseline, proposed project, and project alternative scenarios.<br>• Provides better estimates of average effects and effects by specific hydrologic year type since analysis is based on CALSIM's 73-year period of historic hydrologic record.<br>• Shows both current and future effects to contractors by analyzing deliveries both at current and future levels of contractor demand.<br><br>**Limitations:**<br>• CALSIM II estimates of deliveries of Article 21 water are based on input demands for this water, which are approximate, may not include all current demands, and can be understated or overstated depending on local conditions. | While total deliveries are reasonably replicated by CALSIM II, results of deliveries of Article 21 water can be understated or overstated, depending on actual local conditions. The CALSIM II model determines Article 21 deliveries based on the demand for this water (an input to the model) and the availability of water. Input demands for Article 21 water are based on deliveries that contractors might take in the first month such water is available. These demands do not reflect lower deliveries that may occur when contractors have full storage and limited ability to take delivery of this water, or the drop off in demand that may occur when Article 21 water is available for longer than a one-month period. The demands may also not recognize times when contractors may be able to accept more Article 21 water than specified in CALSIM II input assumptions due to improved delivery and storage capabilities or other local conditions. |
| **Study No. 5**<br>River/Delta Flow Analysis spreadsheet tabulation analysis<br>(DEIR Appendix H)<br><br>Purpose:<br>Evaluate the effects of the proposed project on flow in the Feather and Sacramento rivers and on Delta inflow from the Sacramento River | **Benefits:**<br>• Provides a relatively accurate estimate of changes in river flows as a result of allocation changes, transfers and retirement of 45,000 AF. CALSIM II cannot accurately predict the effects of minor shifts in deliveries to individual contractors and the consequent small changes in river flow. In the case of the proposed project, the changes in river flow are a fraction of one percent of total river flow.<br>• More direct and intuitive basis for comparing the effects of the allocation changes to SWP Feather River contractors on flow in the Feather River.<br><br>**Limitations:**<br>• Could miss minor changes in operations at Oroville sensitive to very small changes in diversions to the North Bay Aqueduct. | • None expected since changes in river flow are insignificant. The proposed project had no effect on flows in the American and San Joaquin rivers and less than a 0.15 percent effect on flows in the Sacramento and Feather rivers and Delta outflow between 1996 and 2003. |

**FEIR TABLE 6.3-1**

**ANALYTICAL METHODS AND THEIR BENEFITS AND LIMITATIONS**

| Study | Benefits and Limitations | Possible Effect of Limitations on Results |
|---|---|---|
| **Study No. 6**<br>Historical operations analysis, using CALSIM II and spreadsheet analysis<br>(DEIR Appendix L)<br><br><u>Purpose</u>:<br>Evaluate effects of the Monterey Amendment on CVP Use of JPOD to fill San Luis Reservoir between 1995 and 2005 and in the future | **Benefits:**<br>• The analysis provides a basis for assessing Reclamation's potential need for JPOD use based on the timing of filling San Luis Reservoir as indicated by CALSIM II output. The direct CALSIM II output on use of JPOD provided a useful comparison to the inspection of reservoir fill dates. Use of the historical analysis shows actual past operations between 1995 and 2005 relative to potential need for JPOD, and CALSIM II provides a similar basis for prediction of future JPOD need based on CVP San Luis storage between the 2020 baseline and 2020 proposed project.<br><br>**Limitations:**<br>• Either analysis cannot predict decisions made by Reclamation on whether they would actually use JPOD. The monthly time step of CALSIM II output could mask periods of weeks or days when San Luis Reservoir is nearly full and Reclamation decisions might differ from the Department's assumptions. | • Potential impact could be reduced by real-time operational factors / decisions such as CVP demands, energy issues at San Luis Reservoir pumping plant (Gianelli), relevant SWRCB permit requirements, and SWP contractor carryover amounts in SWP side of San Luis Reservoir. |
| **Study No. 7**<br>Environmental Water Account Analysis using historical operations from 1996-2004.<br>(DEIR Appendix M)<br><br><u>Purpose</u>:<br>Estimate affects of Monterey Amendment on the EWA | **Benefits:**<br>• Provides an analysis of whether the proposed project affected the EWA program during its historical operation, whether it would affect the EWA Program if it were to continue as it had been operated, and what added water cost to the EWA might be attributable to the proposed project.<br><br>**Limitations:**<br>• Many variables; unavoidably speculative as to future impacts. Future decisions of biologists based on real-time fisheries data would be unpredictable, as would the timing of added Delta exports attributable to the proposed project. The future course of the pelagic organism decline that could affect EWA operations as originally envisioned is also unknown. | • The historical results are unaffected by the limitations; however, the future impacts of the proposed project on the EWA are dependent on real-time decisions by fishery biologists based on real-time fish monitoring, and are speculative. |

Some comments state that CALSIM II did not model all of the provisions of the Monterey Amendment. The comments are correct. The CALSIM II analysis was used to estimate the total amount of water available to the SWP under the baseline and proposed project scenarios and to model the parameters discussed above that were affected by Table A transfers and retirements and the altered water allocation method. The water supply management practices were analyzed in the historical analysis.

Appendix K of the DEIR contains two analyses of historical operations (Study Nos. 2 and 3). Actual SWP operations and delivery data were used to determine changes caused by provisions of the Monterey Amendment. The general methodology followed in both the historical impact analysis of nearly all Monterey Amendment provisions and the separate analysis of the water supply management practices considered in isolation is the same. To determine the effects of the specified provisions of the Monterey Amendment on SWP operations and deliveries, the analyses: use historical SWP operations and delivery data to determine actual monthly SWP operations from 1996 through 2004; modify that historical monthly operation by removing or adding those deliveries that were determined to result from those provisions; and determine SWP water supply and operational changes that would likely have occurred with the change in deliveries under these provisions. This analysis is then used to estimate: (1) the actual affects of the Monterey Amendment Table A retirements and the water supply management practices on SWP operations from 1996 through 2004; and (2) the actual effects on SWP operations of only the water supply management practices considered in isolation.

As noted on DEIR page 6-60, the historical operations analysis (Study No. 2) determined that the Monterey Amendment, including the water supply management practices, had resulted in an estimated cumulative increase in Delta export pumping by the SWP of a total of 44,000 AF over the nine-year period from 1996 through 2004. Furthermore, it was conservatively estimated from the second historical operations analysis (Study No. 3) that the water supply management practices could result in an average increase of 50,000 AF in annual pumping from the Delta by the SWP in the future, assuming hydrologic conditions in the future are similar to those that occurred from 1996 through 2004, and in-service-area storage that was available in the 1996 through 2004 period was full. The DEIR also concluded that there was a small, but potentially significant, impact from the proposed project on fisheries due to future application of the water supply management practices as a result of increased Delta export pumping even though this increased pumping would be in compliance with current and future regulatory requirements. Included in the water supply management practices analysis was flexible storage in Castaic Lake and Lake Perris. The actual effects of the borrowing and replacement of water under this provision were evaluated using actual historical data of borrowing and storage from 1996 through 2003, and potential future effects of this provision were based on a worst-case analysis assuming the maximum amounts are borrowed and not replaced until the end of the maximum period allowed. All of the water supply management practices are discussed further in FEIR Chapter 15.

As discussed above, the DEIR identified a cumulative total increase in deliveries resulting from the proposed project from 1996 through 2004 compared to the baseline scenario. However, the DEIR also shows that annual deliveries increased more than this amount during the period from 1996 through 2004 (compare Table 2-3 with Table 6-7) as a result of increased demand. Total average annual deliveries under 1995 conditions were estimated to be about 2.9 million AF (see DEIR Appendix F). Total average annual baseline deliveries would increase to about 3.1 million AF in 2003 and to 3.32 million AF in 2020 (see DEIR Chapter 6, pages 6-32 and 6-38).

Some comments ask how the estimated increase in Delta pumping of 44,000 AF between 1996 and 2004 attributable to the Monterey Amendment derived from Study No. 2 can be reconciled with the observed large increases in pumping in those years. There are several reasons for the demand increases that result in estimated export increases in the model output (and in actual historical exports from 1996 through 2003) that are not related to changes made as a result of the Monterey Amendment. As discussed in FEIR Subsection 14.2.3, the increased demands for Table A water due to increased needs in the contractors' service area are one reason. In addition, the SWP is usually able to pump much more water in wet years due to the availability of more exportable water in wet years than in dry years. The period 1996 through 2004 was an unusually wet period and as a result pumping rates were high. All but a cumulative total of 44,000 AF of the increased exports between 1996 and 2004 would have occurred without the Monterey Amendment. The Monterey Amendment changed some of the rules for allocating available water supplies once they were exported, like those noted above, but it did not change the general operation of the SWP. The analysis in the DEIR determined that the contract changes contained in the Monterey Amendment can affect Delta export pumping rates only for limited time periods. This conclusion is documented in DEIR Section 7.2. See also FEIR Subsection 15.2.3.

## Relationship to Growth Analysis

Another comment states that the CALSIM II analysis does not include all Monterey Amendment provisions and therefore is the wrong foundation for the growth analysis. As a result of the proposed project, the largest increase in water supplies that could potentially support additional growth occurs under average annual conditions, with the supply increase primarily resulting from Table A transfers. As noted in DEIR Subsection 8.2.2, the M&I contractors that could receive additional average annual deliveries as a result of the proposed project's Table A transfers and retirements and the altered allocation practices were identified from results in DEIR Chapter 6, based on the CALSIM II analysis of these provisions. For those contractors, the amount of additional water that could be made available as a result of these provisions was calculated and then the population that could be supported by that amount of water was estimated.

As was discussed in DEIR Subsection 8.2.1, although use of the water supply management practices could increase the reliability of M&I contractors' water supplies (i.e. increase dry-year supplies), there would be little effect on average annual deliveries of SWP water. In response to comments received on the DEIR regarding the potential growth-inducing impacts of the water supply management practices, and because those practices would primarily provide increased water supplies in dry years, the Department has taken a look at the water supply increases to M&I contractors under dry-year conditions, and has estimated the increase in population that could potentially be supported based on those dry-year supplies. That analysis, which does not change the basic conclusions of the DEIR, is included in Subsection 8.2.4 of this FEIR.

## CEQA Does Not Require Perfect Studies

Comment 30-36 states that the DEIR's presentation of modeling results is flawed, since "statements are presented as though certain, and discussion of possible error or of ranges of possible outcomes is almost entirely absent." In the DEIR (as well as in other Department reports which present CALSIM II estimated SWP deliveries), the results are presented with clarifying words such as "estimated," "could result," "potentially occur," and other implications of possible outcomes, rather than certain outcomes. The Department recognizes the complexity of the CALSIM model with its data input, assumptions, mathematical computations, and of trying to

simulate the complex SWP/CVP water storage and delivery system. In the DEIR, statements such as the following do not portray "certain" results— "It is estimated that this impact could occur…" or "…the proposed project…could result in minor decreases in Sacramento River flow…," or "…total deliveries to contractors south of the Delta would be estimated to decreases… ."

Another example of the Department's acknowledgement of model accuracy is noted in DEIR Subsection 6.4.2.2, which states "For the CALSIM studies for this EIR, contractor demands for Table A water were refined based on recent deliveries and discussions with some contractors. Consequently, contractors are very likely to be able to use the Table A deliveries estimated by the model, and thus the delivery estimates should have good accuracy. No similar refinement of demands for Article 21 water occurred and as a result, the estimates of deliveries of Article 21 water to individual contractors are much less accurate than the estimates of deliveries of Table A water."

Other comments argue that CALSIM II should not be used in the DEIR because it is an imperfect model. The Department recognizes that CALSIM II is not a perfect model. CEQA does not require perfection, but rather adequacy, completeness, and a good faith effort at full disclosure. See CEQA Guidelines Section 15151. See also *PCL v. USBR*. After considering the strengths and shortcomings of the CALSIM II model, the Department determined that CALSIM II was an appropriate tool to analyze the effects of the proposed project and its alternatives on SWP operations and deliveries to SWP contractors. In addition to CALSIM II, analyses of historical data were also performed for a number of reasons, including the fact that the proposed project includes provisions not readily modeled by CALSIM, that the proposed project was implemented more than a decade ago and so actual data was available, and to supplement and provide a check for CALSIM results. After considering the strengths and shortcomings of these analyses based on historical data, the Department determined that these analyses are appropriate tools to analyze the effects of the proposed project and its alternatives on SWP operations and deliveries to SWP contractors.

When the analysis was begun in 2003, at the time of the NOP, it was decided that 1995 conditions would serve as the starting point for the analysis because 1995 was the last year before the Monterey Amendment came into effect. Two periods would be analyzed; 1995 through 2003, the period already experienced and for which historical data is available; and 2003 through 2020, the future viewed from 2003. Accordingly, CALSIM II was used to examine SWP deliveries under 1995, 2003 and 2020 conditions. See FEIR Subsection 6.1.2.1. Analyses in the Environmental Analysis sections in Chapter 7 of the DEIR were divided into two time periods: 1996-2003 (past impacts) and Future Impacts.

In addition to the analysis using CALSIM II, which primarily served to characterize the effects of the Table A transfers and retirements, analysis of historical data was used to characterize the effects of the water supply management practices. The various historical analyses started in 1996 when the Department began implementation of the Monterey Amendment and the analyses could have ended in 2003, only using data for the period through 2003. However, because by the time the historical analyses were conducted, data from 2004, and sometimes 2005, were available, it was decided to use the data from the later years to strengthen the analyses of the historical period in estimating impacts. It was concluded that the advantages provided by the longer period of historical analysis outweighed any disadvantage associated with differences in the periods of analysis.

In addition, Studies 3 and 7 formed the basis for extrapolating certain future impacts of the water supply management practices, and the added period of record was perceived by the

Department as providing a better basis for such estimates. Thus Studies 2, 3, and 7 covered the period 1996 to 2004, and Study 1 and the historical portion of Study 6 covered the period 1996 to 2005. The use of added years of historical data in no way alters the baseline of analysis in the EIR, nor is it inconsistent with the 2003 baseline. Impacts analyzed based on the historical data are included in the 1996 to 2003 analyses in the Environmental Analysis sections in Chapter 7 of the DEIR since they cover essentially the same period of time. See FEIR Table 6.3-1, which clarifies and summarizes the purpose, benefits, and limitations of the different studies.

### 6.3.2.2 EIR Committee Meetings and Suggestions for CALSIM II and its Use

Comments addressed in this subsection include: 22-1 and 31-2.

CALSIM II and the Monterey Plus EIR Committee Process

Technical work in support of the DEIR began in 2003. Initially, the Department planned to use CALSIM II as an important analytical tool for the DEIR. Presentations were made to the EIR Committee (see FEIR Subsection 4.2.2.2.3) on the proposed use of CALSIM II and, as stated on page 5-11 of the DEIR, a modeling subcommittee was formed to refine the methodology and review the assumptions that would be used in the model. All documentation and data sets were made available and reviewed by the subcommittee as they were developed and changes were made based on input from the subcommittee. The assumptions used in the model runs for this EIR are shown in DEIR Table 5-3. The DEIR pointed out on page 5-11 that one criticism of the CALSIM II model is that it overestimates water deliveries to SWP contractors. To minimize the potential of overestimated deliveries in this EIR, the Department reviewed the demand estimates for the SWP's M&I contractors for 1995 and 2003 conditions that are used as input to the CALSIM model. The demand estimates were revised based on their actual historical deliveries. In addition, the decision to use a sum of Table A amounts of 1.9 million AF for the invocation of Article 18(b) no project alternatives (CNPA3 and CNPA4) was determined with advice of the modeling subcommittee. As stated on page 11-2 of the DEIR, it was estimated and discussed with the EIR Committee's modeling subcommittee, that the SWP can deliver 1.9 million AF with its existing facilities and within the current regulatory framework in all but one year in the 73-year hydrologic record. More information on the estimation of demand and other assumptions used in the CALSIM model runs are contained in DEIR Appendix F. Summaries of the meeting discussions and records of the decisions made were kept and are part of the administrative record for this EIR.

Although the meetings were useful, it was apparent that the plaintiffs' representatives felt that CALSIM II was flawed and an unreliable tool for use in the environmental assessment. The Department and the contractors' representatives, on the other hand, expressed the view that while no mathematical model can simulate reality perfectly, CALSIM II was a valuable analytical tool, and one widely used by federal, state and local water agencies for planning purposes. As noted in Comment 31-2, because of this disagreement it was decided that other analytical methods would be investigated.

An unusual aspect of the DEIR is that the Monterey Amendment part of the proposed project being assessed was implemented more than a decade ago. This fact made an analytical approach available that is not available to conventional EIRs. In this case, analysis of historical data can provide an assessment of the Monterey Amendment's effects for the years in which the Monterey Amendment has been in operation. The Department decided that analysis of historical data would become a supplemental analytical method in the DEIR and could be used as a check to compare to certain CALSIM II results. Further, the Department determined that

analysis of historical data would be used to analyze certain proposed project provisions not readily analyzed by CALSIM II.

As a result, the Department used a number of analytical tools, including CALSIM II, spreadsheet analysis of certain CALSIM II output data, and historical analyses based on actual operations under the Monterey Amendment from 1996 through 2004 or 2005. A table summarizing the different types of analyses is included above in this FEIR as Table 6.3-1.

Some comments state that comments and suggestions made at the EIR Committee are not reflected in the DEIR. The Department disagrees. While the Department did not adopt all the suggestions made by the participants, the analytical methods used in the DEIR were shaped to a considerable extent by the committee discussions. The Department believes that it worked extensively with the plaintiff representatives to the EIR Committee to develop alternative ways to analyze impacts of the Monterey Amendment. Many suggestions of the plaintiff representatives were accepted and modifications were made as a result of their input. Most, if not all, of these issues are discussed in response to specific comments contained in the FEIR. In addition, on September 22, 2005, the Department sent the plaintiffs a letter responding to some of the concerns raised about the use of CALSIM II. A copy of that letter is included in FEIR Appendix D.

For example, a letter dated September 13, 2004 from Roger Moore reviewing an earlier draft of the DEIR (Comment 30-93), indicates that the analysis is incomplete, and the commenter reserves judgment. The comment also indicates that the assessment places inadequate focus on extended dry year scenarios, gives inadequate attention to factors limiting surplus water availability, and avoids SWP reliability issues. The comment also indicates the EIR must address fully enforcing Article 18(b). At the time the comment was made, the analysis had not been completed. The complete analysis is now included in the DEIR. The Excel spreadsheet analyses, based on estimated scheduled and unscheduled deliveries from the CALSIM II study output, analyze the effects of the Table A transfers and retirements and the altered allocation practices on SWP operations and deliveries over a 73-year historic hydrologic period which includes two six-year drought periods. The DEIR presents the effects of the proposed project and alternatives on average SWP deliveries and on deliveries in critically dry years and in wet years. These effects are presented for all hydrologic year types in DEIR Appendix F. The SWP Delivery Reliability Reports also address these drought periods relative to SWP supply reliability in a broader context separate from the impacts of the Monterey Amendment on deliveries.

Tables 6-14 through 6-25 in DEIR Chapter 6 address the effects of Monterey Amendment on the delivery of Table A water, as well as on total deliveries of both Table A and Article 21 water. These delivery impacts are shown as overall averages, as well as impacts in both wet and critically dry hydrologic year types. DEIR Appendix F provides detail on delivery impacts in other hydrologic year types. The DEIR addresses several alternatives that assume invocation of Article 18(b), the two court-ordered No-Project Alternatives 3 and 4, as described on pages 11-1 and 11-2 of the DEIR. The effect of No-Project Alternatives 3 and 4 on average, wet year, and critically dry year delivery of Table A water is shown in Tables 11-9, 11-10, 11-13, and 11-14 of the DEIR, and total delivery of both Table A and Article 21 water in Tables 11-17, 11-18, 11-21, and 11-22 of the DEIR. DEIR Appendix F provides detail on delivery impacts of these court-ordered no-project alternatives in other hydrologic year types. The Department disagrees with comments that suggest that Article 21 water cannot be exported and delivered upon implementation of Article 18(b). See discussion in FEIR Chapter 13. The FEIR also includes an analysis of the effects of operating the SWP with Article 18(b) invoked and limited or no Article 21 water delivered to SWP contractors. This analysis is not presented as an

alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3.

### 6.3.2.3 Environmental Analysis Using CALSIM II and the Historical Data Analysis

Comments addressed in this subsection include: 21-18, 21-20, 22-6, 21-22, 21-23, 22-4, 22-5, 22-7, 22-9, 30-6, 30-36, 30-117, 30-142, and 64-20.

CALSIM II Includes Specific Environmental Requirements as Constraints

Several comments note that CALSIM II could not analyze the environmental impacts caused by the Monterey Amendment or that the Department should employ analytical tools other than CALSIM II. The discussion below addresses these concerns.

Several comments state that CALSIM II is an optimization model that, on its own, cannot satisfy CEQA's mandate to analyze and disclose the environmental impacts of a proposed project. CALSIM II is a simulation model of the SWP/CVP system. It is a continuous accounting model, supplemented by a linear programming module to optimize the operation of the system for the current period of simulation (a month) subject to physical, operational, and regulatory constraints of the system, without foresight about the conditions in the next month. It should be noted that although a linear programming module is used in CALSIM II as a tool to allocate water in a month subject to all the constraints of the system in that particular month, CALSIM II does not attempt to optimize the overall operation of the system over the 73-year study period and is therefore not an optimization model. The model is not designed to maximize deliveries but to meet the assumed annual contractors' demands to the extent possible while meeting all physical, operational, and regulatory constraints. The Department agrees that CALSIM II cannot provide a stand-alone impact analysis of all provisions of the proposed project because it does not model the water supply management practices. However, the CALSIM II-based analysis was coupled with analysis of historical data and other methods in the DEIR to evaluate the effects of all proposed project provisions on SWP deliveries and operations. The results of these analyses were then used in Chapter 7 to determine the environmental effects of these changes on different resource categories.

Other comments contend that CALSIM II focuses only on project SWP operations and limits its treatment of the environment to only what can be hard coded in the model, ignoring recent issues such as declines in Delta fish species. The DEIR does not ignore recent issues such as declines in Delta fish species. CALSIM II translates regulatory water quality objectives into flow objectives and routes water to meet these objectives at a priority that is higher than SWP deliveries. It attempts to model fishery flow criteria and water quality criteria as written in the pertinent regulations, mostly represented by SWRCB D-1641 and CVPIA (b)(2). It attempts to characterize these adaptive environmental objectives dynamically. It does not however react to "real time" types of issues such as fish densities near the pumps as these are not inputs to CALSIM II. It is assumed that issues such as these are represented in the export curtailments prescribed by the regulatory requirements. See FEIR Subsection 7.2.2.1.3.

Other comments suggest that environmental variables should be treated as dependent variables rather than constraints and for this reason CALSIM II is unsuitable for use in an environmental assessment. The Department disagrees. The assumptions included in CALSIM II accurately represent the way the Department operates the SWP within the limitations of modeling operations at a monthly time step. As noted throughout the DEIR, the SWP is operated real time to optimize the capture of water while complying fully with all water quality standards, environmental regulations, regulatory constraints, and operational constraints.

Other comments state that because CALSIM II is an optimization model, it effectively excludes the possibility of operating the SWP in a manner that would reduce rather than increase exports from the Delta. The DEIR does not use CALSIM II or the historical analysis to determine how the SWP should be operated to protect the environment. CALSIM II is used to determine how the SWP can be operated given specific constraints. In fact, CALSIM II can model reduced Delta export if the environmental constraints in the Delta are increased or contractor water demand is decreased. The comment states that use of CALSIM II fails to disclose impacts in the Delta. The CALSIM II model studies indicate that the Table A transfers and retirements and the altered water allocation method have little effect on Delta exports (see DEIR Subsection 6.4.2). The CALSIM II output also indicates that Delta hydrodynamic and water quality parameters are not significantly changed as documented in DEIR Subsection 7.1.3.

However, as noted in DEIR Subsection 6.4.3, the historical operations analysis showed that the Monterey Amendment, including the water supply management practices, resulted in an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

## CALSIM II and Environmental Constraints

Several comments argue that CALSIM II does not comprehensively include all critical environmental constraints and for this reason does not represent reality, or that it does not contain codes to account for the myriad of flow, habitat and water quality requirements mandated by federal and state species protection statutes.

CALSIM II was used in the DEIR to estimate total deliveries of SWP water under 2003 and 2020 conditions. As discussed above, CALSIM II translates regulatory water quality objectives into flow objectives and routes water to meet these objectives at a priority that is higher than SWP deliveries. It attempts to model fishery flow criteria and water quality criteria as written in the pertinent regulations, mostly represented by SWRCB D-1641 and CVPIA (b)(2). The version of CALSIM II used in the analysis of 2003 conditions included the water quality and flow objectives in effect at the time preparation of the DEIR began. The objectives were based on the best science available at the time they were promulgated and were intended to fully protect environmental quality. At the time the analysis was conducted it was assumed that the objectives in place in 2003 would also be in effect in 2020.

The Department recognizes that the water quality and flow objectives included in the CALSIM II analysis may not provide sufficient protection to certain fish species. Courts and regulatory agencies have already imposed limits on Delta export pumping that are more stringent than the limits in the Department's water rights permits and more stringent than necessary to comply with the current water quality and flow objectives. The export pumping constraints in effect in 2020 are likely to may be more restrictive than the constraints in the CALSIM II analysis in the DEIR. Because of this possibility the estimates of deliveries of SWP water in 2020 under different hydrologic conditions may be overstated. This overstatement would not affect the analysis in

the DEIR because deliveries would be overstated under both baseline and with-proposed project conditions. Any differences between the two scenarios would remain about the same or could be less if total deliveries were reduced.

It is also worth noting that the proposed project would have very little effect on total deliveries of SWP water – its primary effect would be to alter the allocation of water among contractors. The water supply management practices could result in a slight increase in total deliveries of up to an average of 50,000 AFY as described above, although under more stringent export constraints San Luis Reservoir would fill less often and there would be fewer opportunities to use out-of-service-area storage, the main reason for the added pumping. This estimate assumed the Delta flow and water quality objectives that were in place in 2003 would still be in place in 2020. If flow and water quality objectives for the Delta become more stringent in the future, the increase in deliveries attributable to the proposed project would be less than 50,000 AFY. The effects on Delta fisheries would be less than those described in Section 7.3 of the DEIR.

Several comments refer to a study by the Natural Heritage Institute (NHI) in 2005 which the comments say concluded that CALSIM II does not accurately represent the environmental constraints that limit Delta pumping. The study attempts to examine what would be required in terms of additional constraints that might be necessary to restore Delta health. The NHI study has a different purpose than this DEIR. The object of the environmental impact analysis in the DEIR is to assess the environmental effects of the proposed project within the existing physical and regulatory environmental settings. Its purpose is not to evaluate different environmental regulations that may be more protective of the Delta and its biological resources than the current regulations.

Other comments state that the DEIR does not make reference to the Wanger decision with respect to the Delta smelt. Although issuance of the DEIR preceded issuance of the December 2007 order imposing interim operational constraints conditions on Delta pumping, the DEIR makes reference to the July 2007 order of Judge Wanger which found the Biological Opinion to be invalid but did not vacate the opinion and states that the court will impose a court-order remedy (see DEIR page 7.3-70). As noted above, more stringent environmental standards and limitations on pumping would reduce the environmental effects of the proposed project as described in the DEIR because San Luis Reservoir would fill less often and there would be fewer opportunities to pump surplus water. The most recent limitations on SWP operations are discussed in the FEIR Subsection 7.2.2.1.1.

### 6.3.2.4 Specific CALSIM II Criticisms

Comments addressed in this subsection include: 21-21, 22-4, 22-11, 22-13, 22-14, 30-36, 30-73, 30-106, 30-110, 30-118, and 64-20.

Several comments noted specific criticisms of how several aspects of the Monterey Amendment were modeled in CALSIM II, such as an opinion that demands are over inflated, the lack of modeling of the locally-owned KWB Lands, and borrowing from the terminal reservoirs. Those areas are discussed below.

#### Table A Amounts

Comments stated that input demands are higher than the historical average, and that “perfect demands” of full Table A do not exist and that such demand as input makes it impossible for CALSIM II to measure the impact of “demand-altering aspects of the project.”

The DEIR used CALSIM II model runs to determine the amount of water available for delivery to SWP contractors under different hydrologic conditions for the baseline, proposed project, and each alternative. Water demand estimates for 1995 and 2003 were based on recent historical data of actual deliveries which, for some contractors, were less than their Table A amounts. In the 2020 CALSIM II model runs it was assumed that by 2020 all contractors would need their full Table A amounts. See DEIR Appendix F, Section 2.6.1.2. Table 5-3 in the DEIR (pages 5-12 to 5-14) shows the background assumptions used in the CALSIM II model for 1995, 2003 and 2020 conditions for the baseline and other alternatives. Demand is defined in this analysis as the amount of SWP water that the contractor would actually like to receive and will physically accept delivery of if the water is available. The actual demand of each contractor for SWP deliveries can be more or less than the initial request of any contractor in any given year.

Demand is an essential CALSIM II input that strongly affects CALSIM II output. Each contractor's demand is related to the contractor's need for water, but for CALSIM II input purposes, the contractor's Table A demand cannot exceed its Table A Contract Amount. Article 21 demands are also input values for CALSIM II. The Department recognizes that in the real world, a contractor's demand varies due to the availability of local water supplies, the contractor service area's demand for water, water costs of SWP water relative to other available sources, water quality considerations, and other factors. However, in 2001 and from 2003 to the present, all SWP contractors have been requesting delivery of their entire Table A amounts every year and these full requests are likely to prevail through 2020 and beyond. This demand increase is independent of the changes that are a part of the proposed project. DEIR Section 2.4 (page 2-9) and 6.3.1 (page 6-12). See also FEIR Subsection 14.2.2.3 for a discussion on contractor requests, Subsection 6.1.2.3.3 for more discussion on demand in the baseline, and Subsection 15.2.3.2 for more discussion on how most increased pumping since 1996 is not the result of the Monterey Amendment.

Some comments suggest that CALSIM II assumes a perfect supply. If perfect supply means unlimited supply, CALSIM II does not assume perfect supply. CALSIM II uses as input to the model inflows based on actual historical measurements of monthly flow for those rivers included in the model, for the period 1922 through 1994. When determining allocations for a given year in a model study, CALSIM II uses statistical forecasts of runoff for the remainder of the year, instead of perfect foresight of supplies. This is the same methodology the real-time operators use when determining allocations for the year, and it provides a similar level of uncertainty in the model to what real time operators must deal with. The difference between the statistical runoff forecasts used in CALSIM II's allocation decisions and the historical hydrology used as input is that it often results in lower allocations to contractors than would occur under a "perfect supply." The model assumes that the SWP meets its flow and temperature obligations north of the Delta with surface water, and that export pumping complies with all relevant constraints. CALSIM II assumes that Sacramento Valley groundwater is pumped only up to amounts needed to meet local agricultural and urban demands not met by surface water. This practice does not cause CALSIM II to overstate the amount of water available to the SWP in the Delta.

One comment (30-106) states that CALSIM II inflates estimates of reliable deliveries and creates "paper water." This issue was termed a "paper water" problem because reliance is arguably placed on water that "exists only on paper in the SWP long-term water supply contracts or the difference between the sum of the Table A amounts and the actual delivery capability of the SWP. The comment compares past actual deliveries to CALSIM II estimates to reach this conclusion. CALSIM II is a demand driven model and actual demand in the past was lower than in the recent past and lower than the sum of the Table A amounts. As noted above, in 2001 and from 2003 to the present, contractors have requested all of their full Table A amounts. The Department believes that if CALSIM II overestimates potential deliveries any

overestimate is relatively minor. Even if the overestimates are greater, for CEQA purposes it is better to overestimate deliveries so as not to underestimate the impacts. As was discussed in FEIR Subsection 6.3.2.1, in the Monterey Plus EIR CALSIM II was used for comparative studies to evaluate the impacts of the proposed project, not to estimate SWP delivery reliability. There are other documents intended to provide information regarding the reliability of water supplies, such as the SWP Delivery Reliability Report released by the Department every two years and Urban Water Management Plans prepared by urban agencies. See FEIR Chapter 9 on water reliability for more discussion of this issue.

Several comments question why the CALSIM II runs assumed that San Luis Obispo County would take its full Table A amount in 2020 because infrastructure does not exist that would allow delivery of this amount. Since San Luis Obispo County is paying the capital costs for the SWP conservation facilities, the Department allocates based on San Luis Obispo County's contractual Table A amount of 25,000 AF. In drier years this provides a slight increase in allocated Table A water (i.e. 60 percent of full Table A) rather than based on reduced Table A amount. Although San Luis Obispo County is not receiving their full Table A amount, the water is included in their water resource planning efforts. San Luis Obispo County has participated in the Turnback Pool as a seller and could potentially sell a portion of its annual Table A in the future. Additionally, under the water supply contract it has the opportunity for future groundwater banking to increase dry-year supplies or annual exchanges; therefore the full Table A is included in the CALSIM II demands.

## Kern Water Bank

Several comments refer to the absence of the locally-owned KWB Lands in the CALSIM II model runs. A state-owned and operated KFE was not included in the baseline scenario, because at the time of the original 1995 NOP, the Department had not developed the KFE property for use as a groundwater bank. The action analyzed in the DEIR is the transfer of the land owned by the Department. Although the proposed project recognizes locally-owned development of the KWB Lands, operation of that water bank is not part of the project. However, the effect of the SWP deliveries to the KWB Lands on SWP operations from 1996 through 2004 was included in the analysis of historical SWP operations in Appendix K of the DEIR. See FEIR Subsection 16.2.3.

To analyze the deliveries to the KWB Lands within Kern County, KCWA was asked to review the deliveries of SWP water to the KWB and determine how much of that water it could have stored in other storage programs to which KCWA had access that were existing at the time of delivery and had available recharge capacity. The other existing storage programs KCWA considered were limited to projects in the Kern Fan area, including: the Berrenda Mesa Project; City of Bakersfield 2800 acres; and the Pioneer Project, including the Kern River Channel. KCWA conducted a detailed monthly analysis of these storage programs, looking at the historical deliveries that were made to those programs, estimating the remaining recharge capacity that would have been available for additional deliveries, and comparing the SWP deliveries to the KWB Lands to this remaining available recharge capacity. The results of KCWA's analysis show that from 1996 through 2004 all SWP water deliveries to the KWB Lands by KWB participants located within Kern County could have been recharged in available capacity in these other Kern Fan projects (see DEIR Appendix E, Section VII). Therefore, it was assumed that all SWP water delivered to the KWB Lands by KWBA participants located within Kern County would have still been delivered to KCWA without the Monterey Amendment's transfer of the KFE property. This analysis was reviewed by the Department ground water experts who agreed with the conclusions of KCWA. See FEIR Subsection 16.2.7.

A state-owned KFE was included in Alternatives NPA1, CNPA3, and CNPA4 and evaluated in a post-processing analysis using CALSIM II output data. It was assumed to have a storage capacity of 350,000 AF in 2003 and of 500,000 AF in 2020. Complete operating assumptions for the state-owned KFE are described in DEIR Chapter 11, Section 11.6, and in DEIR Appendix F.

Terminal Reservoirs

Other comments question whether the use of limited hydrologic records distorts the analysis of borrowing from Castaic Lake and Lake Perris. The DEIR provides information on the operations of the two terminal reservoirs before the Monterey Amendment (1974 through 1995) and after the Monterey Amendment. The historical information before the Monterey Amendment is useful because it shows actual pre-Monterey terminal reservoir operations, and the historical information after the Amendment indicates how the contractors actually used their new ability to borrow and return water from the terminal reservoirs during that period. It was recognized however that borrowing in the first 10 years after the Monterey Amendment might be atypical because the period was relatively wet. Consequently, the environmental analysis assumed that the contractors might borrow the maximum allowed under the Monterey Amendment and avoid repayment for the maximum period allowed, five years. Thus, the analysis in the DEIR represents the worst case from the point-of-view of environmental impacts.

Another comment (22-14) suggests analysis of the effects of borrowing on the terminal reservoirs would be a good use of CALSIM II if the CALSIM model did not have so many flaws. The version of CALSIM II used in the analysis does not include the contractors' borrowing from the terminal reservoirs. The circumstances under which a contractor is likely to use flexible storage (such as for operational flexibility due to a contractor facility outage, water quality issues, or emergency purposes) are not readily modeled. To do so would require changes to the model that were not considered necessary because an adequate analysis was done without the use of CALSIM II. This suggestion will be conveyed to the modeling staff of the Department to consider in future modifications to CALSIM II.

### 6.3.2.5 Conclusions of the Monterey Plus EIR do not Change due to CALSIM II Limitations

Comments addressed in this subsection include: 21-21, 21-23, 22-1, 22-4, 22-5, 22-8, 22-10, 22-11, 22-12, 22-14, 22-15, 30-36, 30-77, 30-106, 30-117, and 30-133.

Several comments contend that the limitations or "flaws" of the CALSIM II model render the results and conclusions of the DEIR as inaccurate or "unsuitable as an estimator of project deliveries."

Calibration and Accuracy

Several comments point out that CALSIM II has not been calibrated or verified. In fact, the Department has calibrated several important components of the model, in part in response to peer review criticisms, and has conducted a historical operations study to verify results. Still, many critics continue to believe that the model is insufficiently calibrated and that it is not well suited to making absolute predictions. However, as discussed in FEIR Subsection 6.3.2.1, the Monterey Plus EIR uses CALSIM II in a comparative manner, rather than to make absolute predictions. The peer review panel agreed that CALSIM II was a good tool when used for comparative studies, when a "without project" scenario is compared to a "with project" scenario.

CALSIM II is essentially a continuous accounting model, supplemented by a linear programming module to optimize the monthly operation of the system without foresight about the conditions in the next month. The primary physical law governing the simulation procedure is conservation of mass, maintaining a mass balance from one month to the next, while optimizing allocations of the available water in that month without foresight about the future months of simulation. Models such as CALSIM II are inherently different from models that simulate hydrologic processes based on the physical laws governing the precipitation-runoff and the physical routing of water through a system of channels with defined geometry, roughness, streambed slope, etc. The classical model calibration process is difficult to apply to planning models, such as CALSIM II, that are primarily used to predict operations and water availability for a fixed level of development in the future under a range of hydrologic conditions and regulatory constraints. Continuing development of new supplies, along with changes in demands and the regulatory environment have all resulted in considerable changes to the management of the CVP/SWP system in the past 35 years. Project operations to meet future demands are often predicated on operation rules, storage and conveyance facilities, and demand levels which are necessarily different from historical conditions.

Although a classical approach to model calibration cannot be applied to models like CALSIM II, calibration of some of the important components of the model is possible, and has been done. For instance, one of the most important components of the model, its hydrologic component, has been calibrated by including closure terms in the form of local surface water accretions from every depletion study area (DSA) of the model network to match the historically available stream gage records. The routine used to determine the Sacramento River flows and the corresponding Delta exports that meet Delta water quality standards, is an Artificial Neural Network (ANN) model that is trained using the calibrated Delta Simulation Model (DSM2) prior to being used in CALSIM II simulation runs. The above components of CALSIM II, that are either directly or indirectly calibrated, are three of the most important components of the model that have the most significant impacts on the simulation results, and as such, it would be inaccurate to claim that CALSIM II has not been calibrated. In the absence of a classical approach to calibration applicable to complex models like CALSIM II, the next best approach is generally to set model parameters for a simulation run relying on experience and then verifying the results of the simulation run by comparing to historical operations. To verify model results, the Department conducted a 24-year simulation using historical input from 1975 through 1998. The results of this study showed remarkable matching of the simulated values of the major components of system operation to historical values. Components such as stream flows at key locations and the net Delta outflow index showed little difference between simulated and historical values. Therefore, it would be inaccurate to claim that CALSIM II has not been validated. For detailed examination of the validation study the reader is referred to the November 2003 *CALSIM-II Simulation of Historical SWP/CVP Operations, Technical Memorandum Report*.

One comment (22-4) states that the accuracy problem with CALSIM II is paramount given that the Appellate Court found that the 1995 Monterey Agreement EIR had not considered the ramifications of the SWP's inability to deliver anywhere near the full entitlement values prescribed in the long-term water supply contracts. The DEIR fulfills the court's instruction that the DEIR include an examination of a "no project" alternative that includes invocation of Article 18(b) of the pre-Monterey Amendment long-term water supply contracts. In addition, the CALSIM output reflects the inability of the SWP to deliver 100 percent of Table A supplies. The SWP Delivery Reliability Reports further document this fact.

Under Court-ordered No Project Alternatives 3 and 4, Article 18(b) would be invoked and the sum of the Table A amounts reduced to 1.9 million AF, an amount that the SWP would be able

to deliver with its existing facilities in all but the very driest conditions. However, the Department differs from the Plaintiffs' interpretation of what occurs after the implementation of Article 18(b). With the invocation of Article 18(b), the Department assumed that it would provide the contractors with additional water that could be pumped from the Delta in accordance with the provisions of Article 21 of the water supply contracts. The contractors would expect to receive Article 21 supplies, both as scheduled surplus and as unscheduled (interruptible) water, to make up the difference between the dramatically reduced Table A amounts if Article 18(b) were invoked and total deliveries had Article 18(b) not been invoked (see DEIR Section 11.1). The Department would not have limited or changed Article 21, which provides for the delivery of water that can be furnished to contractors without interfering with the needs of the SWP. Therefore, the Department believes that comparisons between estimated deliveries with the proposed project and with Court-ordered No Project Alternatives 3 and 4 derived from CALSIM II are reasonably accurate and consistent with SWP long-term water supply contracts and the manner in which the Department would have administered these contract provisions and operated the SWP. The FEIR also includes an analysis of the effects of operating the SWP with Article 18(b) invoked and limited or no Article 21 water delivered to SWP contractors. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3.

Another comment (30-36) states that CALSIM II may make inaccurate projections because it uses historical hydrology that does not take account of climate change. Climate change and its potential effects are discussed in DEIR Chapter 12 and in FEIR Chapter 12. The CALSIM II model analyzes the impact of the proposed project on total SWP deliveries and on allocations to individual contractors, based on the proposed project's Table A transfers and retirements and altered allocation practices, and the results are presented as average impacts as well as by specific year types (see DEIR Chapter 6 and DEIR Appendix F). For this EIR, additional estimates were developed of the impact of climate change on SWP deliveries, and these are presented at the end of DEIR Appendix F in Tables A-4a through A-4f and A-6a through A-6f. The analysis post-processed CALSIM II output by applying factors developed in certain climate change scenarios, as discussed in DEIR Chapter 12 and the text accompanying the climate change tables in DEIR Appendix F. See also FEIR Chapter 12.

Based on studies to date, the Department believes that the primary effect of climate change will be to change the timing of annual runoff and reduce available water supply, resulting in more years that are represented by the dry and critically dry years analyzed in the DEIR. Chapters 6 and 7 of the DEIR provide an accurate analysis of how the available water supply would be allocated in those year types and describe the kinds of impacts that would occur in critically dry and dry years. Impacts from the proposed project on the Delta would be less than indicated in the DEIR if there are more critically dry and dry years. See also this FEIR Section 7.2 Fisheries.

### Lack of Statistical Rigor in Characterizing Hydrology

Several comments indicate that the hydrology used renders the model "unsuitable as an estimator of project deliveries" or that the water-year types used in CALSIM II do not represent the true statistical distribution and characterization of the historical runoff from 1922 through 1994. Comments also contend that CALSIM II uses perfect knowledge of the water-year type when in actuality, project operators would not know the type of water year they were operating to until much later in the water year.

The water-year type classifications used in CALSIM II were not determined by the Department; they were defined by the SWRCB in D-1641. SWRCB D-1641 identifies flow and water quality

requirements for SWP operations that vary by these year types, as those year types are defined in D-1641. It is these year types that govern real-time SWP operations, just as they govern operations in CALSIM II. CALSIM II uses a direct translation of D-1641 to define water year types. As defined in D-1641, the year type classification for a water year (October through September) is determined by calculating an index based on three variables (with specified weighting factors applied to each variable): current year's April to July runoff forecast; current year's October to March runoff forecast; and the previous year's index. Since the current year index includes a variable based on the previous year's index, the water-year type is intentionally based partly on the previous year's hydrology. The contention that CALSIM II uses perfect knowledge of water-year type is incorrect. As directed in D-1641, preliminary determinations of water-year types are made in February through April and a final determination is made in May. Just as the real-time operators do, CALSIM II uses the previous year's water-year type classification for operations in the months of October to January, and then uses the current water-year type classification for the months of February to September. In the context of the Monterey Amendment, CALSIM II is used to help the Department and other decision-makers to compare how allocations to SWP contractors would change under different alternatives. It is not used to make real-time decisions.

## Use of Averages

Several comments observe that the use of averages everywhere in the DEIR gives little insight into project operations. It is true that average values provide only limited information when dealing with variable phenomena. To provide a more complete analysis, the DEIR includes in the tables of estimates of deliveries of SWP water to individual contractors in DEIR Chapters 6 and 11 both the averages of all years in the hydrologic record as well as averages of critically dry years and wet years. These tables illustrate how deliveries shift in favor of agricultural contractors in critically dry years and in favor of M&I contractors in wet years. Estimates of deliveries in all five hydrologic year types along with average deliveries are included in Appendix F of the DEIR.

Comments also question the data in DEIR Table 7.1-2. The purpose of Table 7.1-2 in DEIR Chapter 7 was to provide the reader of the DEIR with an overall picture of the relative magnitude and seasonal variability of flow in streams that could potentially be affected by the proposed project. The Department recognizes that flow data averaged over a period of time provides only limited information. The periods over which data is averaged could respond to flow-affecting events, for example, completion of a reservoir, or it could use a common period regardless of events occurring during the period. The Department initially chose the former approach but in response to criticism by EIR Committee members changed to the latter approach and provided data for the period 1956 through 1995, just prior to implementation of the Monterey Amendment. In some cases, measurements at a particular gauging station were discontinued prior to 1995 and as a result the record at that station is abbreviated.

## Foresight on the Part of Operators

Some comments state that CALSIM II assumes foresight on the part of operators because of the way hydrologic data is handled in the model. This is not true. At any particular time step within a CALSIM II model run, the model has no more knowledge of future runoff than the real-time operators do. For example, when determining allocations for a given year in a model study, CALSIM II uses statistical forecasts of runoff for the remainder of the year, instead of foresight of hydrology. This is the same methodology the real-time operators use when determining allocations for the year, and provides a similar level of uncertainty in the model to

what real time operators must deal with. Real-time operators must estimate the amount of water that they think the SWP can deliver, based on water then in storage, forecasts of runoff, and forecasts of SWP operational and regulatory obligations. While the use of forecasts can at times result in overestimates or underestimates, allocation decisions made both by real-time operators and in CALSIM II are based on conservative forecasts of runoff, so underestimates should occur more often than overestimates. The potential consequences in CALSIM II are the same potential consequences that are possible with the real-time allocations made by SWP operators. Nonetheless, even if CALSIM II at times overestimates the amount of water available to the SWP, it would not affect the comparative analysis in the DEIR. The purpose of the analysis is not to identify finite actual numbers, but to compare the baseline to the proposed project and to the alternatives while being as accurate as possible using existing information. The part of the proposed project that CALSIM II was used to analyze, the Table A transfers and retirements and altered water allocation practices, does not show any difference between the baseline, proposed project and the alternatives with regard to significant environmental effects. The Table A transfers and retirements and altered water allocation practices affect the amounts of water individual contractors are allocated by the Department but have negligible effect on the amount of water pumped from the Delta by the SWP. If anything, the retirement of 45,000 AF of Table A amount could reduce pumping slightly. The transfer of Table A amount from agricultural contractors that regularly use the Table A water to M&I contractors that may not need it for some years could also cause a temporary reduction in pumping.

The only element of the proposed project that would have an effect on Delta pumping and Delta fish and wildlife is the water supply management practices. CALSIM II is not programmed to evaluate the subtleties of those management practices and was not used to analyze the water supply management practices. The water supply management methods were analyzed using historical data.

### 6.3.2.6 Summary of the CALSIM II Peer Review

Comments addressed in this subsection include: 21-19 and 64-20.

Summary of the CALSIM II Peer Review

Comment 21-19 states that the summary of the peer review panel's report contained in DEIR Chapter 5 does not provide a reader with a balanced view of the panel's conclusions. Other comments discuss certain conclusions of the peer review panel. This section of the FEIR summarizes the major points as discussed in the 2005 SWP Water Delivery Reliability Report (pages 7 through 11).

As noted in the DEIR, CALSIM II has attracted much scrutiny because the state and federal governments use the model to evaluate possible additions and improvements to California's water system (DEIR Chapter 5, page 5-10). Some comments have questioned the model's fitness for this purpose. In response, the CALFED Bay-Delta Program commissioned an external peer review of the model in 2003. The central question put to the review panel was whether the CALFED program had adopted an appropriate approach to modeling the CVP/SWP system. The panel considered a variety of CALSIM II issues and addressed how future model development activities could be managed to assure quality results for current and proposed applications. The panel published its results in *A Strategic Review of CALSIM II and its Uses for Water Planning, Management, and Operations in Central California* (Close et al. 2003).

The peer review panel's report is included as Appendix G in the DEIR. In 2004, the Department and Reclamation responded to the questions, comments and recommendations of the peer

review panel in a report (*Peer Review Response: A Report by DWR/Reclamation in Reply to the Peer Review of the CALSIM II Model Sponsored by the CALFED Science Program, 2004*). The response included in DEIR Appendix G, outlined plans and priorities for model improvements.

Many of the elements of model development features outlined in the *Peer Review Response* are in progress and will be implemented in the updated version of the model, CALSIM III. The current version of CALSIM II was used in support of the analyses in this EIR.

In general, the panel concluded that the current modeling approach was comparable to other state-of-the-art models and that it addressed many of the complexities of the CVP/SWP system. To increase user confidence in model results and to provide a basis for assessing the model's ability to produce absolute predictive results of system behavior, the panel suggested calibration and verification of the model, as well as sensitivity and uncertainty analyses.

The *Peer Review* Response prepared by the Department and Reclamation also highlights the ongoing and planned efforts to establish trust in and credibility for the model by improving documentation and by conducting sensitivity and uncertainty analyses of the model parameters and results. Other efforts include enhancing the level of detail in the geographic representation of the system, improving hydrologic input to the model, and continued software development/ enhancement.

## CALSIM II Ability to Estimate Water Deliveries

The accuracy of CALSIM II in simulating "real-world" conditions was one of the major issues raised by the peer review panel. The review panel focused on the system's delivery capability as a major concern to water users as well as water managers who rely on CALSIM II when making planning decisions. In Appendix F of the *Strategic Review,* the panel expresses concern that CALSIM II overestimates deliveries to south-of-Delta water users. This observation is based on comparing the average deliveries for the last 10 years (1993 through 2002) with the average annual deliveries in a 73-year model simulation (1922 through 1994) conducted at the 2001 level of development and then-current demands.

In *Peer Review Response,* the Department and Reclamation (2004) conclude the concern about overestimations of south-of-Delta deliveries is unwarranted.

A more appropriate method for assessing the ability of CALSIM II to accurately model SWP operations is to compare historical SWP deliveries with simulated deliveries from CALSIM II. Such a comparison for the period 1975 through 1998 was presented in the Historical Operations Study. The Department committed to conducting this study in *The SWP Delivery Reliability Report 2002* (DWR 2003a), and published the study in November 2003. The Historical Operations Study was designed to assess the ability of CALSIM II to mimic historical operations of the SWP. In this study, historical input was used where reliable data was available. In situations where reliable historical record was not readily available, reasonable assumptions and estimates were made.

Comparing the average annual historical deliveries with the simulated deliveries in the Historical Operations Study for the dry period shows reasonable results. The average annual SWP south-of-Delta Table A delivery for the 6-year drought of 1987 through1992 is 1,930 TAF per year, compared to 2,030 TAF per year for actual historical deliveries. However the annual differences (not averaged) between the simulated and actual values can be large. This variation illustrates that the results of CALSIM II analyses are best used for estimating SWP performance over

longer periods of time and that considerable judgment must be used when analyzing a specific year.

The observed differences in the annual historical and simulated deliveries can be attributed to differences in the operational rules and parameters assumed in the simulation run. Some of the major operational parameters that could be different between the model run and the actual historical operations include the rule governing the amount of delivery versus the amount of storage to be carried-over into the following year (delivery-carryover storage rule), flood control rules, San Luis Reservoir operation rule, Delta outflow requirements, regulatory decisions, Delta export curtailments caused by pumping facilities outages or compliance with state and federal endangered species regulations, compliance with the provisions of the Coordinated Operations Agreement, implementation of a drought water bank, and water transfers. In the wetter years (above-normal and wet year-types), when supply is plentiful and deliveries are mostly determined by demands, the simulated deliveries are very close to historical values. When long-term values are compared, the average annual delivery for the SWP during the 23-year period of 1975 through 1997 is 1,810 TAF per year for the Historical Operations Study and 1,790 TAF per year for the historical deliveries.

## CALSIM II Sensitivity Analysis Study

The sensitivity analysis procedures explore and quantify the impact of possible errors in input data on the model outputs and system performance measures. With a simple sensitivity analysis procedure, errors in model input parameters are generally investigated one at a time. The Department conducted a simple sensitivity analysis in response to the recommendations in the *Strategic Review* (Close et al. 2003). The objective of the analysis was twofold: (1) to examine the behavior of the model in response to variations in selected input parameters; (2) to provide a basis for CALSIM II modelers for prioritizing future model development activities. There are many input parameters used in the CALSIM II model to define the physical characteristics of the system, as well as the regulatory environment and operational characteristics. Some input parameters are in the form of time series or monthly distribution curves, and others are simply single values. Some input parameters are estimated from the historical data, and others are values developed or calibrated by users. After consultation with model developers and project operators, 21 model input parameters in four major categories with reasonable ranges of variations were selected for this sensitivity analysis study. Examination of the results of the sensitivity analysis provided information on the behavior of the SWP system's delivery capability with respect to some of the key input parameters. The most significant input parameters affecting SWP Table A Delta deliveries are the assumed SWP Table A demands and the monthly Delta diversion limits applied to Banks Pumping Plant. Inflow to Lake Oroville displayed a moderate impact on the SWP Table A Delta deliveries. Lastly, the effect of changing SWP contractors' demands for Article 21 water on Article 21 deliveries is high, as expected.

## Impact of Model Simulation Time-step in Estimating Projects Average Deliveries

In general, the SWP deliveries are assessed using monthly time-step CALSIM II simulations. Monthly time-step simulations implicitly assume that daily hydrologic variability combined with daily physical and regulatory operating constraints are not significant to the forecast of expected average annual deliveries. In other words, it is assumed that a study with monthly inflows, reservoir releases, exports, and associated constraints would produce the same long-term average annual deliveries as a study where inflows, releases, exports, and associated constraints vary on a daily basis. To confirm the above assumption, results were examined

from a simplified, daily time-step CALSIM II simulation conducted for the California Bay-Delta Authority's Surface Storage Investigations. The daily variability appears to have only minor impacts on SWP Table A deliveries.

### 6.3.3 Individual Responses to Comments

#### Response to Comment 16-8

The comment notes that the EIR uses several different analyses to assess impacts, and asks that the FEIR explain the limitations or qualifications of each. FEIR Table 6.3-1 in FEIR Subsection 6.3.2.1 provides a summary explanation of the benefits and limitations of the various studies that provide clarification of the analyses used for the EIR. In addition, the environmental setting and baseline, analytical approach, and analytical methods are discussed in DEIR Chapter 5. The analysis of each of the proposed project elements is discussed in DEIR Section 5.5, and indicates which study was used for that analysis. Those studies are also discussed in DEIR Subsection 6.4.1 (starting on page 6-15) and are found in the DEIR appendices. For clarification on the various points of time in baseline see FEIR Subsections 6.1.2.1 and 6.1.2.2; for clarification on the use of CALSIM II coupled with historical analysis see FEIR Subsection 6.3.2.1.

#### Response to Comment 16-9

The comment clarifies a limitation of Study No. 2 which analyzed the impacts of all but one provision of the Monterey Amendment – the transfers of Table A amounts. The transfer of Table A amount from agricultural contractors that regularly used the Table A water to M&I contractors that may not have needed it for some past years could have caused a temporary reduction in Table A requests that would have been reflected in historical pumping. This limitation is noted in DEIR page 6-60, and the comment would like this clarification/limitation on pages 5-9, 6-54, 7.1-37, 7.1-38, and 7.3-43 through 7.3-44. The Department now includes FEIR Table 6.3-1 in FEIR Subsection 6.3.2.1 which presents limitations of each study and will take the place of doing errata to each of the above-mentioned pages. See FEIR Subsection 6.3.2.1 for discussion of the use of CALSIM II in the EIR analysis. See also FEIR Subsections 7.2.1.1.3 and 15.2.2 which also discuss the fact that the DEIR may overstate the impacts of the water supply management practices.

#### Response to Comment 16-10

The comment notes that Study No. 3 is used to determine the water supply management impacts using historical data, and states that there is a limitation in how the results of this analysis are extrapolated to estimate future effects. The comment also states that the impact in the future would be less due to increased use of SWP water to meet direct needs in the contractors' service areas as shown in Figures 1 and 2 included in the comment letter, and asks that this clarification be included to DEIR pages 5-9, 6-63, 7.1-40, and 7.3-55 as was done to some degree on pages 6-64 through 6-65. The Department agrees that the impact in the future is likely to be less than estimated in the DEIR. The Department now includes FEIR Table 6.3-1 in FEIR Subsection 6.3.2.1 which presents limitations of each study and will take the place of doing errata to each of the above-mentioned pages. See FEIR Subsection 6.3.2.1 for discussion of the use of CALSIM II in the EIR analysis. See also FEIR Subsections 7.2.1.1.3 and 15.2.2 which also discuss the fact that the DEIR may overstate the impacts of the water supply management practices.

See also Response to Comment 16-10 in FEIR Chapter 15.

## Response to Comment 16-11

The comment states that the analysis of the water supply management practices overstates the impact of the Monterey Amendment in terms of the increase in Delta exports and the resulting impacts because the analysis does not offset the increases attributable to the water supply management practices with the reductions in Delta exports that are attributable to the retirement of 45,000 AF, the transfers, and changed allocation method. The comment letter includes Figures 3 and 4 that portray schematically, but not to scale, the relationships between these factors.

The Department agrees that the analysis overstates the impacts, and agrees with the conceptual presentation provided in Figures 3 and 4 of the comment. The Department decided not to include in the DEIR a numerical estimate of offsetting Delta export impacts or fisheries impacts of these two elements of the analyses because the analyses were developed using very different analytical methods as indicated on DEIR pages 6-65, 7.1-57, and 7.3-77.

More specifically, the future impact of the water supply management practices could not be modeled through a 73-year sequence of years with a statistically valid representation of different hydrologic conditions because CALSIM II is not programmed to model the water supply management methods. Instead, the analysis of the water supply management practices relied on a nine-year historical period that was wetter than average and contained no critically dry years. The mix of hydrologic year types in this nine-year period was not representative of the mix of year types in the 73-year record used by CALSIM II. The historical analysis used actual daily data, with some of the individual events lasting a few days or hours. CALSIM II is a model with a monthly time step, increasing the difficulty of combining results from the separate analyses.

The CALSIM II analysis uses annual deliveries to SWP contractors as the basis for its conclusions as to changes in total Delta exports over the 73-year modeling period. The historical analysis uses daily Delta export volumes to estimate impacts. Changes in deliveries from year to year can be achieved by drawing on reservoir storage rather than increased exports. Over the longer term, these delivery changes must be made up by Delta export changes, and the analysis is valid for the 73-year period.

However, in critically dry years, the retirement of 45,000 AF, the transfers, and changed allocation method are predicted to result in a 6,000 AF increase in SWP deliveries, rather than a decrease in deliveries as in the other hydrologic year types (DEIR page 7.3-54). It is likely that none of the Monterey Amendment actions (water supply management practices, retirement of 45,000 AF, the transfers, and changed allocation method) would have any effect on Delta exports in critically dry years because San Luis Reservoir would be unlikely to fill and Delta exports would be unaffected by the combined provisions of Monterey. Thus the 6,000 AF of added deliveries in the critically dry years would be derived from storage withdrawals in those year types and would be made up by changes in Delta exports in other (wetter) year types, adding another speculative aspect to combining the potentially offsetting effects of the Monterey Amendment actions on daily Delta exports and resulting fish salvage estimates.

In addition, the impacts projected by the extrapolation of the historical study occur in specific times of certain years, as illustrated by the events cited in DEIR Section 7.3, Tables 7.3-26 through 7.3-34, and the accompanying text. The partially offsetting impacts of the retirement of 45,000 AF, the transfers, and changed allocation method would presumably act to reduce the

magnitude of such individual events of continued diversions at the higher permitted export rate at Banks, but with an unpredictable frequency relative to the water supply management practices impacts. Thus the benefits from the retirement of 45,000 AF, the transfers, and changed allocation method may not offset the impacts of the water supply management methods in any given year, month, or day. In the fisheries analysis, it would have been impossible to account for any offsetting effects on daily salvage values, for example.

Thus the Department agrees with the basic premise presented in the comment that the impacts are overstated and will be less if all influences are considered. The Department has elected to present the maximum probable impact, with the recognition that the net impact will be likely be less. Although individual occurrences of continued diversions at Banks at higher permitted rates and impacts to fish salvage estimates could still be similar to the events cited in DEIR Section 7.3, other events could be of lesser magnitude and overall the average impacts are likely to be less than stated in the DEIR. See also FEIR Subsections 7.2.1.1.3 and 15.2.2, which discuss that the DEIR may have overstated the impacts of the water supply management practices.

See also Response to Comment 16-12 in FEIR Section 7.2.

## Response to Comment 16-12

The comment states that the analysis of the water supply management practices overstates the impact of the Monterey Amendment in terms of the increase in Delta exports and the impact to fisheries because the analysis does not offset the increases attributable to the water supply management practices with the reductions in Delta exports that are attributable to the retirement of 45,000 AF, the transfers, and changed allocation method. See also Response to Comment 16-11.

## Response to Comment 16-22

The comment states that the various analyses conducted for the DEIR, identified in Table 5-2 should be more clearly described. See Table 6.3-1 in FEIR Subsection 6.3.2.1 which addresses in summary form the studies and their benefits and limitations. The comment also identifies several instances which is says should be corrected and made consistent. The following changes to the text are made in response to this comment:

Page 5-9, second paragraph, the third sentence is revised to read:

> As in Study No. 2, the analysis used actual contractor demands and deliveries to groundwater storage facilities during the period 1996 through 2004. Therefore, the analysis is conservative in that it does not account~~ed~~ for the increasing ~~water~~ demands of SWP contractors~~,~~ or the probable increase in available groundwater storage south of the Delta, and it also assumes a ~~the likely~~ reduction in availability to the contractors of storage other than groundwater storage outside their service areas. Estimates of future pumping from the Delta at the Banks Pumping Plant were assumed to be ~~made in a~~ similar to the estimates resulting from this analysis for the period 1996 through 2004.

Page 7.1-36, last paragraph, the second sentence is revised to read:

> Water that could be exported at Banks Pumping Plant consistent with all regulatory constraints would otherwise ~~have~~ flow~~ed~~ out of the Delta ~~only~~ when the availability of exportable water in the Delta exceeds total demand for SWP water.

The comment indicates that the DEIR text incorrectly states that increasing contractor demands were assumed in the historical analyses of the water supply management practices. The Department used actual requests, deliveries, and groundwater storage in the historical analyses. To the extent that actual contractor demands and groundwater facilities changed during the period of analysis, those changes were reflected through actual requests and deliveries. The comment is correct that there were no explicit changes assumed as part of the studies.

The comment also indicates that the DEIR text incorrectly states that increasing contractor demands were assumed in the future analyses of the water supply management practices. The Department used actual requests, deliveries, and groundwater storage in the historical period to characterize probable future impacts, assuming that in-service-area storage would be full, as noted in the comment. The comment is correct that there were no changes assumed as part of the studies other than those described in the DEIR appendices detailing study methodology.

## Response to Comment 16-47

The comment requests revisions to Table 5-2 on page 5-6 of the DEIR. Table 5-2 on page 5-6 of the DEIR is revised to read as follows:

**TABLE 5-2**

**ANALYTICAL STUDIES**

| Study | Method | Purpose |
|---|---|---|
| Study No.1 - Historical Allocation Analysis (DEIR Appendix I) | Analysis of historical Table A allocations ~~operations~~ data from 1996~~5~~-2005 | Estimate allocation of Table A water to SWP contractors if Monterey Amendment had not been implemented 1996-2005 |
| Study No. 2 – Historical Operations Analysis (DEIR Appendix K) | Analysis of historical operations data from 1996-2004 | Estimate effects of most Monterey Amendment provisions on SWP deliveries and Delta pumping 1996-2004~~5~~ |
| Study No. 3 – Historical Operations Analysis (DEIR Appendix K) | Analysis of historical operations data from 1996-2004 | Estimate effects of water supply management practices on SWP deliveries and Delta pumping 1996-2004 for extrapolation to ~~under~~ 2020 conditions |
| Study No. 4 - Water Allocation Modeling (DEIR Appendix F) | CALSIM II and post-processing of CALSIM II output | Estimate deliveries of water to SWP contractors as a result of altered water allocation procedures and transfers and retirements of Table A amounts under 2003 and 2020 conditions |
| Study No. 5 - River/Delta Flow Analysis (DEIR Appendix H) | CALSIM II and spreadsheet analysis | Estimate effects of altered water allocation procedures and transfers and retirements of Table A amount on river flow and Delta outflow under 2003 and 2020 conditions |
| Study No. 6 - JPOD Analysis (DEIR Appendix L) | Historical operations analysis, CALSIM II and spreadsheet analysis | Estimate effects of Monterey Amendment on Joint Point of Diversion (Cooperative use of CVP and SWP Delta pumping facilities). |
| Study No. 7 – Environmental Water Account Analysis (DEIR Appendix M) | Analysis of historical operations from 1996-2004 | Estimate effects of Monterey Amendment on Environmental Water Account |

## Response to Comment 16-58

The comment requests that the third sentence of the third paragraph on page 6-52 of the DEIR be revised to change “wet years” to “critically dry years.” The third sentence of the third paragraph on page 6-52 of the DEIR is revised to read as follows:

> … Collectively, average deliveries to agricultural contractors in ~~wet~~ critically dry years would increase by 21 percent and deliveries to M&I contractors would decrease by 5 percent relative to the baseline scenario. …

## Response to Comment 16-59

The comment requests that the typo in the second sentence of the last paragraph on page 6-57 of the DEIR be corrected. The second sentence of the last paragraph on page 6-57 of the DEIR is revised to read as follows:

> … The turnback pool was used to transfer 1,285,318 AF of Table A water between 1996 and 2004, including 289,222 AF purchased by the Department and ~~9~~996,096 AF purchased by contractors. …

## Response to Comment 16-67

The comment requests that the sixth paragraph on page 7.1-9 of the DEIR be clarified to state that in addition to environmental standards, regulatory restrictions also limit Delta exports. The sixth paragraph on page 7.1-9 of the DEIR is revised to read as follows:

> In general, the SWP and CVP pump as much water as they can from the Delta. Their ability to pump water is limited by three factors, the capacity of their facilities (pumping plants, aqueducts and storage reservoirs), the need to maintain compliance with environmental standards~~,~~ including regulatory restrictions such as the U.S. Army Corps of Engineers permit (described on page 6-2, paragraph 2) and the availability of water. …

## Response to Comment 21-18

The comment states that it is inappropriate to rely upon an optimization model as the primary tool for the measurement of environmental impacts under CEQA.

The DEIR does not use CALSIM II or the historical model to determine how the SWP should be operated to protect the environment. It is used to determine how the SWP can be operated given specific constraints. In fact, CALSIM II can model reduced Delta export if the environmental constraints in the Delta are increased or contractor water demand is decreased. The comment goes on to state that use of CALSIM II fails to disclose impacts in the Delta. The CALSIM II runs indicate that the Table A transfers and retirements and the altered water allocation method have little effect on Delta exports (DEIR Subsection 6.4.2). The CALSIM II output also indicates that Delta hydrodynamic and water quality parameters are not significantly changed as documented in DEIR Subsection 7.1.3. However, as noted in DEIR Subsection 6.4.3, the historical analysis showed that the water supply management practices would have resulted in a cumulative total increase in SWP deliveries of 44,000 AF over the nine-year period from 1996 through 2004. The increases would have occurred in 11 months of the nine-year (108-month period). Assuming hydrologic conditions in the future are similar to those that occurred from 1996 through 2004, then the water supply management practices could increase SWP deliveries by an annual average of about 50,000 AF in the future. This estimate may overstate the effects of the water management practices because overall hydrologic conditions during the period 1996 through 2004 were wetter than average and the availability of SWP water in excess of contractors' immediate needs was greater than it is likely to be in the future. See FEIR Subsections 6.3.2.1 and 6.3.2.3.

The CALSIM II-based analysis was coupled with analysis of historical data and other methods in the DEIR to evaluate the effects of all proposed project provisions on SWP deliveries and operations. The results of these analyses were then used in Chapter 7 to determine the environmental effects of these changes on different resource categories. As noted throughout the DEIR, the SWP is operated in real time to optimize the capture of water while complying fully with all water quality standards, environmental regulations, regulatory constraints, and operational constraints. Delta impacts and mitigation are discussed in DEIR Section 7.3 and FEIR Subsection 7.2.2.1.3.

The comments also states that a study by the NHI in 2005 concluded that CALSIM II does not accurately represent the environmental constraints that limit Delta pumping. The NHI study has a different purpose than this DEIR. See also FEIR Subsection 6.3.2.3.

## Response to Comment 21-19

The comment asks that the FEIR provide a broader summary of the CALFED Science Program's peer review of CALSIM II. FEIR Subsection 6.3.2.6 includes several areas of criticisms discussed in the peer review report. The entire report is included in the DEIR Appendix G, entitled "CALSIM II Peer Review Report and the Department's Response."

## Response to Comment 21-20

The comment claims that CALSIM II does not include constraints mandated for Delta fish species protection or actions for restoring the Delta. As noted in FEIR Subsection 6.3.2.3, CALSIM II translates water quality objectives into flow objectives and routes water to these objectives at a priority that is higher than project deliveries. It attempts to model fishery flow criteria and water quality criteria as written in the pertinent regulations, mostly represented by SWRCB D-1641 and CVPIA (b)(2). It attempts to characterize these adaptive environmental objectives dynamically. The CALSIM II model studies indicate that the Table A transfers and retirements and the altered water allocation method have little effect on Delta exports (DEIR Subsection 6.4.2). The CALSIM II output also indicates that Delta hydrodynamic and water quality parameters are not significantly changed as documented in DEIR Subsection 7.1.3. However, as noted in DEIR Subsection 6.4.3, the historical operations analysis showed that the Monterey Amendment, including the water supply management practices, can potentially result in increases in exports from the Delta.

The DEIR does not use CALSIM II or the historical analysis to determine how the SWP should be operated to protect the environment. CALSIM II is used to determine how the SWP can be operated given specific constraints. In fact, CALSIM II can model reduced Delta export if the environmental constraints in the Delta are increased or contractor water demand is decreased. Neither CALSIM nor the historical analysis react to "real time" types of issues such as fish densities near the pumps, as these are not inputs to CALSIM II. Issues such as these are represented in the export curtailments prescribed by the regulatory requirements discussed in FEIR Subsection 7.2.2.1.3. See also FEIR Subsection 6.3.2.3.

The comment states that the EIR should turn away from the DEIR's heavy reliance on modeling in favor of more traditional approaches to impact analysis, such as hands on environmental monitoring, analysis by fisheries experts. As discussed in DEIR Section 7.3 and FEIR Subsections 7.2.2.2 and 7.2.4, the DEIR relies on a number of factors, including those listed in the comment, to determine the impact of the proposed project on the Delta aquatic environment.

The comment discusses comments submitted on the DEIR by a letter from the Citizens' Planning Association of Santa Barbara County. See Response to Comments in Letter 22.

## Response to Comment 21-21

The comment claims that CALSIM II inputs "perfect supply and perfect demand." See FEIR Subsection 6.3.2.4 which discusses both of these topics. For further clarification of issues relating to demand, see FEIR Subsection 6.1.2.3.3 for demand in the baseline, Subsection 14.2.2.3 on contractor requests for water, Subsection 15.2.3 on whether the Monterey Amendment increased demand and Subsection 11.2.4.1 on why alternatives that would reduce demand were rejected. See also FEIR Subsections 6.3.2.2 and 6.3.2.5.

## Response to Comment 21-22

The comment claims that actual operations are "not faithful to legal constraints" and claims that CALSIM II has no way of accounting for this issue. The Department disagrees with the statement that it is not operating to its water rights permits and other regulations. These are described in the DEIR on pages 7.1-29 and 7.1-33 under regulatory setting, and in FEIR Chapter 14, Subsection 14.2.2.

In response to the statement that CALSIM II cannot account for changes in the regulatory constraints, the DEIR identified which constraints have been included in the model runs. CALSIM II translates water quality objectives into flow objectives and routes water to these objectives at a priority that is higher than project deliveries. It attempts to model fishery flow criteria and water quality criteria as written in the pertinent regulations, mostly represented by SWRCB D-1641 and CVPIA (b)(2). It attempts to characterize these adaptive environmental objectives dynamically. It does not however react to "real time" types of issues such as fish densities near the pumps as these are not inputs to CALSIM II. It is assumed that issues such as these are represented in the export curtailments prescribed by regulatory requirements discussed in FEIR Subsection 7.2.2.1.3. See also FEIR Subsection 6.3.2.3.

## Response to Comment 21-23

The comment notes that CALSIM II has not been calibrated, and therefore should include a "margin of safety" that would prevent harm to the environment. FEIR Subsection 6.3.2.5 discusses the topic of calibration and accuracy. The Department has made some efforts at calibration, in part in response to peer review criticisms, but many critics continue to believe that insufficient calibration is one reason the model is not well suited to making absolute predictions. However, the Monterey Plus EIR uses CALSIM II in a comparative manner. The peer review panel agreed that CALSIM II was better used for comparative studies, when a "without project" scenario is compared with a "with project" scenario.

Additionally, the model does not react to "real time" types of issues such as fish densities near the pumps as these are not inputs to CALSIM II. It is assumed that issues such as these are represented in the export curtailments prescribed by the regulatory requirements discussed in FEIR Subsection 7.2.2.1.3. See also FEIR Subsection 6.3.2.3.

## Response to Comment 21-25

The comment asks how the estimated cumulative total of increase in Delta pumping of 44,000 AF between 1996 and 2004 attributable to the Monterey Amendment derived from Study No. 2 can be reconciled with the observed large increases in pumping in those years. See FEIR

Subsection 6.3.2.1. This issue is also discussed in FEIR Subsection 15.2.3 on water supply management practices and demand.

The comment also states that future drafts of the EIR should clearly disclose the months during which increased exports resulting from the water supply management practices might occur in the future. These impacts are discussed in the DEIR, starting on page 7.3-54 which identifies November to March as the period when increased exports resulting from the water supply management practices might occur in the future.

## Response to Comment 22-1

The comment claims that there are critical flaws with CALSIM II that would make the DEIR deficient due to its reliance on CALSIM II for much of the impact analysis. The comment also claims that comments and suggestions made at the EIR Committee are not reflected in the DEIR. The Department disagrees. While the Department did not adopt all the suggestions made by the participants, the analytical methods used in the DEIR were shaped to a considerable extent by the committee discussions. See FEIR Subsections 6.3.2.1 and 6.3.2.2. See also Subsection 6.3.2.5 on a discussion of why the Monterey Plus EIR conclusions do not change due to CALSIM II limitations. See also Response to Comment 22-1 in FEIR Chapter 5.

## Response to Comment 22-2

The comment states that a portion of the comments addresses flaws of the CALSIM model, a portion addresses other areas of impact and a third portion addresses criticisms of a paper prepared by the Department on incorporation of climate change into CALSIM II. The comment letter also states that it includes two appendices which support the CALSIM analysis.

See the responses to comments in Letter 22, in particular Response to Comment 22-1. See also responses to PCL's letter to the Department on the 2007 Final State Water Project Delivery Reliability Report which included Letter 22 as an attachment. The Department responded to a number of the comments included in Letter 22 and also pointed out that other comments in Letter 22 had been responded to in the 2002 and 2005 Delivery Reliability Reports (http://baydeltaoffice.water.ca.gov/swpreliability). The Progress Report which the third section of Letter 22 criticizes was updated in April 2009 in a publication titled Using Future Climate Projections to Support Water Resources Decision Making in California (http://www.water.ca.gov/climatechange/articles.cfm). See also FEIR Subsection 12.2.2. The Department believes that the Reliability Report and the climate change reports are useful documents that can help decision-makers in their determinations regarding reliability of SWP supplies and other water management decisions. The Department considers the 2002, 2005, and 2007 Reliability Reports to be part of the administrative record for this EIR.

## Response to Comment 22-3

The comment states that although the comments of Letter 22 do not reach all the analyses in the DEIR, because of the central importance of CALSIM II to the DER's analysis, the flaws that have been identified are sufficient to render the entire DEIR as inadequate. See the responses to comments in Letter 22, in particular Response to Comment 22-1.

## Response to Comment 22-4

The comment disputes the use of CALSIM II as a tool for analyzing the impacts of the proposed project due to claims of the degree of accuracy, calibration, the use of Table A full entitlements

which the comment claims can cause a reliance on "paper water." See FEIR Subsections 6.3.2.1 and 6.3.2.5.

FEIR Subsection 6.3.2.5 discusses the topic of calibration and accuracy. The Department has made some efforts at calibration, in part in response to peer review criticisms, although some critics continue to believe that insufficient calibration is one reason the model is not well suited to making absolute predictions. However, the Monterey Plus EIR uses CALSIM II in a comparative manner. The peer review panel agreed that CALSIM II was a good tool when used for comparative studies, when a "without project" scenario is compared with a "with project" scenario. Additionally, it does not react to "real time" types of issues such as fish densities near the pumps as these are not inputs to CALSIM II. It is assumed that issues such as these are represented in the export curtailments prescribed by the regulatory requirements discussed in FEIR Subsection 7.2.2.1.3. See also FEIR Subsection 6.3.2.3.

With regard to relying on full Table A amounts, see FEIR Subsection 6.3.2.4 which discusses Table A amounts used in CALSIM II. For further clarification of issues relating to demand, see FEIR Subsection 6.1.2.3.3, for demand in the baseline, Subsection 14.2.2.3 on contractor requests for water, Subsection 15.2.3 on whether the Monterey Amendment increased demand and Subsection 11.2.4.1 on why alternatives that would reduce demand were rejected. Regarding the claim that the use of full Table A amounts leads to "paper water," the DEIR notes on page 9-11 that the "paper water" problem is really a question of whether local planners recognize the limitations on the reliability of SWP supplies and more specifically whether the Monterey Amendment contributed to misunderstandings of water reliability. The Department now considers the probability of an amount of water being delivered annually rather than firm yield when discussing reliability of SWP water supplies. Reducing the Table A amounts through invocation of Article 18(b) is not relevant in calculating total available SWP water supply, given current day operations and planning based on water delivery probability curves, and given the fact that all contractor shortages are allocated on a pro-rata basis under the provisions of Article 18(a) of the Monterey Amendment. The Department has determined that invocation of Article 18(b) would not protect the Delta nor would it be an effective way to make local government aware of the variability and limitations of SWP water supply. As discussed in FEIR Subsection 7.2.2.1.3, the Department considers current regulatory processes and evolving Delta constraints to be the appropriate means of protecting the Delta and other environmental resources. As discussed in FEIR Subsections 9.2.4 and 9.2.6, the Department considers processes such as the Reliability Report (which addresses the impact of climate change and Delta pumping restrictions) and other means of urban water management planning to be a more effective means of making local government aware of the variability and limitations of the SWP water supply. See FEIR Subsection 13.2.2.3.

## Response to Comment 22-5

The comment claims that there are features of CALSIM II that make it unsuitable as an estimator of project deliveries due to the use of the water year indices and the characterization of hydrology, and the claim that the model is unable to use environmental parameters and lack of calibration. See FEIR Subsection 6.3.2.5 on calibration and accuracy, and the relationship between water-year type and hydrology. See also FEIR Subsection 6.3.2.3 on environmental constraints in the model runs.

## Response to Comment 22-6

The comment claims that the model is an optimization model. See a description of the model and its use in FEIR Subsection 6.3.2.1, especially subheading "Use is Appropriate for Comparative Studies."

The comment claims that because the model is maximizing exports from the Delta rather than maximizing environmental qualities, it is inadequate to analyze the impacts of the proposed project, especially recent court rulings on endangered species regulations. The comment also notes that CALSIM II as currently configured is not well suited to help solve the environmental issues in the Delta. As noted in FEIR Subsection 6.3.2.3, CALSIM II is a simulation model through optimization, which effectively excludes the possibility of operating the SWP in a manner that would reduce rather than increase exports from the Delta. The DEIR does not use CALSIM II or the historical model to determine how the SWP should be operated to protect the environment. It is used to determine how the SWP can be operated given specific constraints. CALSIM II can model reduced Delta exports if the environmental constraints in the Delta are increased or contractor water demand is decreased.

With regard to new restriction on exports, neither CALSIM II nor the historical analyses react to "real time" types of issues such as fish densities near the pumps as these are not inputs to CALSIM II. It is assumed that issues such as these are represented in the export curtailments prescribed by regulatory requirements discussed in FEIR Subsection 7.2.2.1.3. See also FEIR Subsection 6.3.2.3.

## Response to Comment 22-7

The comment notes that CALSIM II does not contain codes to account for the myriad of flow and salinity gradients in the Delta and claims that the Department's modeling of the salinity requirement in the western Delta is too limited and that it does not model reverse flows in the San Joaquin River.

CALSIM was not used to determine what requirements are necessary for environmental protection in the Delta and therefore questions of whether modeling of salinity requirements in the western Delta or reverse flows in the San Joaquin River are adequate in the CALSIM model are not applicable. See FEIR Subsection 6.3.2.3. See also FEIR Subsection 7.2.2.2 and 7.2.4 for discussions of studies that consider what requirements are necessary for environmental protection in the Delta.

CALSIM II was used in the DEIR to estimate total deliveries of SWP water under 2003 and 2020 conditions. CALSIM II incorporates as environmental constraints the water quality and flow objectives for the Delta promulgated by the State Water Resources Control Board. The version of CALSIM II used in the analysis of 2003 conditions included the water quality and flow objectives in effect at the time preparation of the DEIR began. The objectives were based on the best science available at the time they were promulgated and were intended to fully protect environmental quality in the Delta. At the time the analysis was conducted it was assumed that the objectives in place in 2003 would also be in effect in 2020.

The Department recognizes that the water quality and flow objectives included in the CALSIM II analysis may not provide sufficient protection to certain fish species. The courts have already imposed limits on Delta export pumping that are more stringent than the limits in the Department's permits and more stringent than necessary to comply with the current water quality and flow objectives. The export pumping constraints in effect in 2020 may be more

restrictive than the current constraints. Because of this possibility the estimates of deliveries of SWP water in 2020 under different hydrologic conditions may be overstated. This overstatement would not affect the analysis in the DEIR because deliveries would be overstated under both baseline and with-proposed project conditions. Any differences between the two scenarios would remain about the same or could be less if total deliveries were reduced. It is also worth noting that the proposed project would have very little effect on total deliveries of SWP water – its primary effect would be to alter the allocation of water among contractors. The water supply management practices could result in an average annual increase in total deliveries of about 50,000 AFY as described in Chapter 6 of the DEIR, although under more stringent export constraints, San Luis Reservoir would fill less often and there would be fewer opportunities to use out-of-service-area storage, the main focus of the added pumping. This estimate assumed the Delta flow and water quality objective 6.3.2.1 and 6.3.2.3. Requirements to protect the Delta become more stringent in the future estimated future exports will decrease and any resulting impacts will be less under the new regulatory restrictions than under the 2003 regulatory scenario described in the DEIR in Section 7.3. See FEIR Subsection 6.3.2.3. See also FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3.

## Response to Comment 22-8

The comment criticizes the use of water year indices in CALSIM II. See FEIR Subsection 6.3.2.5 on the relationship between water-year type and hydrology.

## Response to Comment 22-9

The comment contends that CALSIM II focuses only on project operations and limits its treatment of the environment to only what can be hard coded in the model, ignoring recent issues such as declines in Delta fish species. CALSIM II translates water quality objectives into flow objectives and routes water to these objectives at a priority that is higher than project deliveries. It attempts to model fishery flow criteria and water quality criteria as written in the pertinent regulations, mostly represented by SWRCB D-1641 and CVPIA (b)(2). It attempts to characterize these adaptive environmental objectives dynamically. It does not however react to “real time” types of issues such as fish densities near the pumps as these are not inputs to CALSIM II. It is assumed that issues such as these are represented in the export curtailments prescribed by the regulatory requirements discussed in FEIR Subsection 7.2.2.1.3. See also FEIR Subsection 6.3.2.3. In Chapter 6, the DEIR made use of CALSIM II to show the effect of the Monterey Amendment on project deliveries. The environmental impacts of the proposed project were analyzed in DEIR Chapter 7. CALSIM II was not used in the analysis of impacts. Each Section in Chapter 7 identifies the methods of analysis used for the resources covered in the Section.

The comment also states that a study by the NHI in 2005 concluded that CALSIM II does not accurately represent the environmental constraints that limit Delta pumping. The study attempts to examine what would be required in terms of additional constraints that might be necessary to restore Delta health. The NHI study has a different purpose than this DEIR. The object of the environmental impact analysis in the DEIR is to assess the environmental effects of the proposed project within the existing physical and regulatory environmental settings. Its purpose is not to evaluate different environmental regulations that may be more protective of the Delta and its biological resources than the current regulations. See FEIR Subsection 6.3.2.3.

## Response to Comment 22-10

The comment disagrees with the classification of water years and indicates that the hydrology used renders the model "unsuitable as an estimator of project deliveries" or that the water-year types used in CALSIM II do not represent the true statistical distribution and characterization of the historical runoff from 1922 through 1994. See FEIR Subsection 6.3.2.5. The water-year type classification definitions and the regulations tied to them are defined in SWRCB D-1641. CALSIM II uses a direct translation of D-1641 to define the water year types. The contention that CALSIM II uses perfect knowledge of water-year type is incorrect. Water Years start in October and end in September. Consultations with project operators determined that the SWP Operators feel that the first reliable forecast of the water-year type for a water year is released on February 15th of each year. CALSIM II therefore assumes that February is the first month that the water-year type classification for the current year is known. CALSIM II uses the previous year's water-year type classification for the months of October to January and then uses the current water-year type classification for the months of February to September. In the context of the Monterey Amendment CALSIM is used to help the Department and other decision-makers compare how allocations to SWP contractors would change under different alternatives. It is not used to make real-time decisions. See also Response to Comment 22-9 stating that the purpose of this EIR is not to evaluate different environmental regulations that may be more protective of the Delta and its biological resources than the current regulations, but rather to assess the environmental effects of the proposed project within the existing physical and regulatory environmental settings.

## Response to Comment 22-11

The comment claims that CALSIM II has not been calibrated and that the calculated values may not represent reality. FEIR Subsection 6.3.2.5 discusses the topic of calibration and accuracy. The Department has made some efforts at calibration, in part in response to peer review criticisms, but some critics continue to believe that insufficient calibration is one reason the model is not well suited to making absolute predictions.

In this EIR, CALSIM is not being used to simulate actual operations; rather it is used in a comparative manner. The peer review panel agreed that CALSIM II was a good tool for comparative studies, when a "without project" scenario is compared with a "with project" scenario. Additionally, see Section 4.4 of the Department's "*Peer Review Response: A Report by DWR/Reclamation in Reply to the Peer Review of the CALSIM II Model Sponsored by the CALFED Science Program in December 2003*" which discusses the portions of CALSIM II that have been calibrated. The Peer Review and the Department's response are found in DEIR Appendix G.

The comment also notes that the actual delivery data from the 2005 Reliability Report and the DEIR (Table 6-7) differ by up to a maximum of 200 TAF. The comparison table provided with the comments compares deliveries of all Table A from the DEIR (which numbers include Table A that has been carried over (carryover) as well as Table A sold through the Turnback Pool) with only the Table A column in the 2005 Reliability Report, and omitting the carryover and Turnback Pool Table A values. If the same delivery data are properly compared, the values are very close, the only difference being some accounting differences that affect the Reliability Report values. The DEIR values are correct.

The comment also references, as an unrealistic request, full Table A requests for San Luis Obispo County. See FEIR Subsection 6.3.2.4 discussion on Table A requests.

## Response to Comment 22-12

The comment claims that the use of averages everywhere in the DEIR gives little insight into project operations. It is true that average values provide only limited information when dealing with variable phenomena. To provide a more complete analysis, the EIR includes in the tables of estimates of deliveries of SWP water to individual contractors in DEIR Chapters 6 and 11 both the averages of all years in the hydrologic record as well as averages within critically dry years and wet years. These tables illustrate how deliveries shift in favor of agricultural contractors in critically dry years and in favor of M&I contractors in wet years. Estimates of deliveries in all five hydrologic year types along with average deliveries are included in DEIR Appendix F. See FEIR Subsections 6.3.2.1 and 6.3.2.5.

## Response to Comment 22-13

The comment claims that use of limited hydrologic records distorts the analysis of borrowing from Castaic Lake and Lake Perris. The DEIR provides information on the operations of the two terminal reservoirs before the Monterey Amendment (1974 through 1995) and after the Monterey Amendment. The information is useful because it indicates how the contractors might use their new ability to borrow and return water from the terminal reservoirs. It was recognized however that borrowing in the first 10 years after the Monterey Amendment might be atypical because the period was relatively wet. Consequently, the environmental analysis assumed that the contractors might borrow the maximum allowed under the Monterey Amendment and avoid repayment for the maximum period allowed, five years. Thus, the analysis in the DEIR represents the worst case from the point-of-view of environmental impacts. See FEIR Subsection 6.3.2.4.

## Response to Comment 22-14

The comment suggests that analysis of the effects of borrowing on the terminal reservoirs might be a good use of CALSIM II if the model did not have so many flaws. The version of CALSIM II used in the analysis does not include the contractors' borrowing from the terminal reservoirs. To do so would require changes to the model that were not considered necessary since an adequate analysis was done without the use of CALSIM II. This suggestion will be conveyed to the modeling staff of the Department to consider in future modifications to CALSIM II. See FEIR Subsections 6.3.2.4 and 6.3.2.5.

## Response to Comment 22-15

The comment questions the data in DEIR Table 7.1-2. The purpose of Table 7.1-2 in Chapter 7 was to provide the reader of the DEIR with an overall picture of the relative magnitude and seasonal variability of flow in streams that could potentially be affected by the proposed project. The Department recognizes that flow data averaged over a period of time provides only limited information. The periods over which data is averaged could respond to flow-affecting events, for example, completion of a reservoir, or it could use a common period regardless of events occurring during the period. The Department initially chose the former approach but in response to criticism by EIR Committee members changed to the latter approach and provided data for the period 1956 through 1995, just prior to implementation of the Monterey Amendment. In some cases, measurements at a particular gauging station were discontinued prior to 1995 and as a result the record at that station is abbreviated. See FEIR Subsection 6.3.2.5. See also Response to Comment 22-15 in FEIR Section 7.1.

## Response to Comment 22-27

This comment is Comment Letter 22 Appendix A that is referred to in Comment 22-7. See Response to Comment 22-7.

## Response to Comment 22-29

This comment is part of Comment Letter 22 Appendix B that is referred to in Comment 22-10. See Response to Comment 22-10.

## Response to Comment 22-31

This comment is part of Comment Letter 22 Appendix B that is referred to in Comment 22-10. See Response to Comment 22-10.

## Response to Comment 30-6

The comment claims that, because CALSIM II is an optimization model, it effectively excludes the possibility of operating the SWP in a manner that would reduce rather than increase exports from the Delta. It also claims that the DEIR failed to disclose impacts to the Delta.

The DEIR does not use CALSIM II or the historical model to determine how the SWP should be operated to protect the environment. It is used to determine how the SWP can be operated given specific constraints. In fact, CALSIM II can model reduced Delta export if the environmental constraints in the Delta are increased or contractor water demand is decreased. The comment goes on to state that use of CALSIM II fails to disclose impacts in the Delta. The CALSIM II runs indicate that the Table A transfers and retirements and the altered water allocation method have little effect on Delta exports (DEIR Section 6.4.2). The CALSIM II output also indicates that Delta hydrodynamic and water quality parameters are not significantly changed as documented in DEIR Subsection 7.1.3. However, as noted in DEIR Subsection 6.4.3, the historical analysis showed that the water supply management practices would have resulted in a cumulative total increase in SWP deliveries of 44,000 AF over the nine-year period from 1996 through 2004. The increases would have occurred in 11 months of the nine-year (108-month period). Assuming hydrologic conditions in the future are similar to those that occurred from 1996 through 2004, then the water supply management practices could increase SWP deliveries by an annual average of about 50,000 AF in the future. This estimate may overstate the effects of the water management practices because overall hydrologic conditions during the period 1996 through 2004 were wetter than average and the availability of SWP water in excess of contractors' immediate needs was greater than it is likely to be in the future. See FEIR Subsections 6.3.2.1, 6.3.2.3, and 6.3.2.5.

The CALSIM II-based analysis was coupled with analysis of historical data and other methods in the DEIR to evaluate the effects of all proposed project provisions on SWP deliveries and operations. The results of these analyses were then used in Chapter 7 to determine the environmental effects of these changes on different resource categories. As noted throughout the DEIR, the SWP is operated in real time to optimize the capture of water while complying fully with all water quality standards, environmental regulations, regulatory constraints, and operational constraints. Delta impacts and mitigation are discussed in DEIR Section 7.3 and FEIR Subsection 7.2.2.1.3.

## Response to Comment 30-36

The comment claims that the DEIR improperly uses CALSIM II as the principal tool to analyze the impacts of the proposed project, due to errors in the data input such as demands being higher than the historical average. As noted in DEIR Appendix F, Section 2.6.1.2, each contractor's demand request was its full Table A amount (prior to invocation of Article 18(b) in the case of No Project Alternative B) in each year. Demand is defined in this analysis as the amount of water that the contractor would actually like to receive and will physically accept delivery of if the water is available. The demand for each contractor can be less than the request for any contractor in any given year. Demand is an essential CALSIM II input that strongly affects CALSIM II output. Each contractor's demand is related to the contractor's need for water, but for CALSIM II input purposes, the contractor's Table A demand cannot exceed its Table A Contract Amount. Article 21 demands are also input values for CALSIM II. The Department does recognize that in the real world, a contractor's demand varies due to the availability of local water supplies, the contractor service area's demand for water, water costs of SWP water relative to other available water, water quality considerations, and other factors. Nonetheless, since 1995, water demands have increased in many contractors' service areas and in 2001 and from 2003 to the present contractors have requested all of their Table A amounts every year. This demand increase is independent of the changes that are a part of the proposed project. The 2020 CALSIM II model runs assumed that by 2020 all contractors would need their full Table A amounts, however, demand in 2003 was based on historical information and was assumed to be less than full Table A amounts. See FEIR Subsection 6.3.2.4.

The comment also claims that CALSIM II has not been calibrated or verified. The Department has made some efforts at calibration, in part in response to peer review criticisms, but some critics continue to believe that insufficient calibration is one reason the model is not well suited to making absolute predictions. However, the Monterey Plus EIR uses CALSIM II in a comparative manner. The peer review panel agreed that CALSIM II was a good tool for comparative studies, when a "without project" scenario is compared with a "with project" scenario. See FEIR Subsection 6.3.2.5 on the Department's position that the conclusions to the Monterey Plus DEIR do not change due to CALSIM II limitations.

The comment states that CALSIM assumption that future water flow patterns will be similar to those in the past is inconsistent with the ample literature on the substantial effect of global warming on California water flows. See FEIR Subsection 6.2.2.2 on Changing Climate Change and Hydrologic Conditions and FEIR Chapter 12 on Climate Change.

The comment notes that CALSIM II is an optimization model and that it cannot predict levels of exports. It is true that the model cannot predict levels of exports. However, CALSIM II developers consider the model best used to make comparative studies rather than absolute predictions. The peer review panel agreed that CALSIM II was a good tool for comparative studies, when a "without project" scenario is compared with a "with project" scenario. In a predictive study, CALSIM II would be used to estimate an absolute value, for example the amount of water available to the SWP in the Delta in a given month under a given set of hydrologic conditions. In the Monterey Plus EIR, the model was used for comparative studies of how the allocations and transfers of the proposed project differed from the baseline and the alternatives, including the no project alternatives. The CALSIM II model was also used to estimate the effects of the proposed project on storage in Lake Oroville and San Luis Reservoir, to estimate the base flows in the Sacramento and Feather Rivers for computing project impacts on those flows, and to evaluate potential changes in Delta hydrodynamic conditions and water quality. The Department determined that it was appropriate to use the model for these purposes. See FEIR Subsection 6.3.2.1 on use of CASIM II for comparative studies.

It also states that the Department has chronically failed to meet water quality standards in the Delta under historic operations. The Department disagrees with the statement that it is not operating to its water rights permits and other regulations. These are described in the DEIR on pages 7.1-29 and 7.1-33 under regulatory setting, and in FEIR Chapter 14, Subsection 14.2.2.

The comment states that the modeling assumptions may predict levels of exports that would be prohibited under current regulations. See Response to Comment 30-6.

The comment claims that the model assumes foresight on the part of operators in taking actions to not violate environmental standards or operational constraints. It is true that CALSIM II is run with historical data so the information for any "future" conditions, at any point in time in the simulation, is known. However, when CALSIM II simulates the operator's allocation procedure, it uses "imperfect foresight." In attempting to mimic the real time operations, CALSIM II uses a forecast of a coming year's water supply. Real-time operators do the same thing because that forecast is the only information that they have available. They must estimate the amount of water that they think the project can deliver while still meeting all of the operational and regulatory obligations. Having both estimates (i.e. forecasts) of supply and of environmental needs allows from these a determination of what would be remaining to deliver to the SWP contractors. The potential consequences are the same potential consequences that are possible with the real-time allocation made by project operators. See FEIR Subsection 6.3.2.5.

Nonetheless, even if CALSIM II overestimates the amount of water available to the SWP it would not affect the analysis in the DEIR. The purpose of the analysis is not to identify finite actual numbers, but to compare the proposed project to the baseline and to the alternatives while being as accurate as possible using existing information. The part of the proposed project that CALSIM II was used to analyze, the Table A transfers and retirements and altered water allocation method, does not show any difference between the baseline, proposed project and the alternatives with regard to significant environmental effects. The Table A transfers and retirements and altered water allocation method affect the amounts of water individual contractors are allocated by the Department but have negligible effect on the amount of water pumped from the Delta by the SWP. If anything, the retirement of 45,000 AF of Table A amount could reduce Delta export pumping slightly. The transfer of Table A amount from agricultural contractors that regularly use the Table A water to M&I contractors that may not have needed it for some years prior to 2001 could also have caused a temporary reduction in historical Delta export pumping. See FEIR Subsection 6.3.2.5.

The only element of the proposed project that would have an effect on Delta pumping and Delta fish and wildlife is the water supply management methods. CALSIM II was not used to analyze the water supply management methods. The water supply management methods were analyzed using historical data. See FEIR Subsection 6.3.2.1.

The comment also claims that the DEIR's presentation of modeling results is flawed, since "statements are presented as though certain, and discussion of possible error or of ranges of possible outcomes is almost entirely absent." In both the DEIR and the Department's Delivery Reliability reports (which also present delivery output), the results are presented with clarifying words such as "estimated," "could result," "potentially occur," and other implications of possible outcomes, rather than certain outcomes. The Department recognizes the complexity of the CALSIM model with its data input, assumptions, mathematical computations, and of trying to simulate the complex SWP/CVP water storage and delivery system. In the DEIR, statements such as the following do not portray "certain" results; they say: "It is <u>estimated</u> that this impact <u>could occur</u>…," or "Storage outside of the contractors' service area <u>could</u> result in potential for growth…," and "This <u>might</u> reduce the water contractor's management flexibility… ." Similar

qualifications are used with regard to conclusions on impacts described in DEIR Section 7.3 on impacts on fishery resources. See FEIR Subsection 6.3.2.1 on CEQA does not require perfect studies. See also FEIR Table 6.3-1 in FEIR Subsection 6.3.2.1 for a discussion of the various studies used with regard to deliveries and the benefits and limitations of their use.

The comment also claims that as participants in the EIR committee process, their concerns regarding the adequacy of CALSIM II were not addressed in the DEIR. See FEIR Subsection 6.3.2.3.

The comment finally asks for clarification of when findings are based on post-processing and when findings are based on direct model results. See DEIR Appendix F, Section 2.1.1.2 which does clarify the reason for post-processing, and states that the CALSIM II studies were post-processed by taking total annual scheduled deliveries and total monthly unscheduled deliveries from the model study and allocating them to individual contractors according to each scenario's assumptions regarding allocation rules and transfers. DEIR Appendix F, Section 2.2.1 clearly lists which scenarios (i.e. baseline, no project alternatives, etc) needed post-processing. See also FEIR Table 6.3-1 in FEIR Subsection 6.3.2.1 for a discussion of the different analyses used with regard to deliveries and the benefits and limitations of their use.

## Response to Comment 30-73

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-73 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in November 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a discussion paper drafted during the development of the DEIR and indicated that a state-owned KFE was not included in the modeling runs. A state-owned KFE was included in Alternatives NPA1, CNP3, and CNP4 and modeled using CALSIM II. It was assumed to have a capacity of 350,000 AF in 2003 and of 500,000 AF in 2020. Complete operating assumptions for the state-owned KFE are described in DEIR Chapter 11, Section 11.6, and in DEIR Appendix F. For more discussion of the KFE and KWB Lands project see FEIR Chapter 16. See FEIR Subsection 6.3.2.4.

## Response to Comment 30-77

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-77 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a discussion paper drafted during the development of the DEIR and mentions concerns about calibration and

validation of CALSIM II and its use as a predictive tool in the DEIR. See FEIR Subsections 6.3.2.1 and 6.3.2.5. See also Response to Comment 30-36.

## Response to Comment 30-93

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-93 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an earlier draft of the DEIR, indicating that the analysis is incomplete, and the commenter reserves judgment. The comment also indicates that the assessment places inadequate focus on extended dry year scenarios, gives inadequate attention to factors limiting surplus water availability, and avoids SWP reliability issues. The comment also indicates the EIR must address fully enforcing Article 18(b). At the time the comment was made the analysis had not been completed. The complete analysis is now included in the DEIR. The modeling of the revised allocation method, transfers, and retirements includes two six-year drought periods. The EIR covers the effects of the proposed project and alternatives on SWP allocations in all hydrologic year types in detail in DEIR Appendix F. The SWP reliability reports also address these drought periods relative to SWP supply reliability in a broader context separate from the impacts of the Monterey Amendment on deliveries.

Tables 6-14 through 6-25 in DEIR Chapter 6 address effects of Monterey on the delivery of surplus water, and DEIR Appendix F provides greater detail on Article 21 (surplus water) delivery impacts.

The DEIR does address several alternatives that assume full implementation of Article 18(b), the two court-ordered no-project alternatives 3 and 4, as described on pages 11-1 and 11-2 of the DEIR. The FEIR also includes an analysis of the effects of operating the SWP with Article 18(b) invoked and limited or no Article 21 water delivered to SWP contractors. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3.

## Response to Comment 30-106

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-106 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in February 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that calibration and validation of

its results are necessary for presenting any CALSIM II analysis in the DEIR. See FEIR Subsection 6.3.2.5.

The comment refers to the absence of the locally-owned KWB Lands in the CALSIM II model runs. See FEIR Subsection 6.3.2.4.

The comment also states that CALSIM II inflates estimates of reliable deliveries and creates "paper water." This issue was termed a "paper water" problem because reliance is arguably placed on water that "exists only on paper in the SWP long-term water supply contracts" (or the difference between the sum of the Table A amounts and the actual delivery capability of the SWP). The comment compares past actual deliveries to CALSIM II estimates to reach this conclusion. CALSIM II is a demand driven model and actual demand in the past has been lower than the sum of the Table A amounts. In 2001 and from 2003 to the present, contractors have requested all of their full Table A amounts. The Department believes that if CALSIM II overestimates potential deliveries any overestimate is relatively minor. Even if the overestimates are greater, for CEQA purposes it is better to overestimate deliveries so as not to underestimate the impacts. CALSIM II is not intended and should not be used for determining the "real" amount of water available to contractors under different year types. There are other tools that are intended to help determine the reliability of water such as Urban Water Management Plans and the Reliability Report released by the Department every two years. See FEIR Chapter 9 on water reliability for more discussion of this issue. See FEIR Subsection 6.3.2.4.

## Response to Comment 30-110

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-110 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on development of the DEIR and indicated that the KFE as a state-owned groundwater bank had no extraction capability. The DEIR discusses the extraction capability of the KFE as a state-owned groundwater bank in DEIR Chapter 11, Section 11.6. See also FEIR Subsection 6.3.2.4.

## Response to Comment 30-115

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-115 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document comment questioned the use of CALSIM II for the analysis of potential growth inducement. The Department relied on CALSIM II simulations for some of the

analyses in the DEIR, including the growth inducement analysis. As the comment states, some critics believe the model overstates available exports. If this were to be the case then future deliveries of SWP water to urban contractors would be less than as projected in Chapter 6 of the DEIR and the population potentially supported by increased deliveries to urban contractors would be smaller than as indicated in Chapter 8 of the DEIR. See also FEIR Subsection 6.3.2.1.

The comment noted that the CALSIM II model does not simulate the water supply management practices and so use of the CALSIM II model results as the basis for the growth inducement analysis omits the effects of the water supply management practices. The DEIR noted (page 8-6) that the water supply management practices would increase effective deliveries to the contractors in droughts but would not have much effect on annual average deliveries and so the effects of the water supply management practices were not included in the growth inducement analysis. Comments received on the DEIR questioned the view that the water supply management practices would have little or no effect on growth and so the issue was reexamined for this FEIR. See FEIR Subsections 6.3.2.1 and 8.2.4.

See also Response to Comment 30-115 in FEIR Chapters 8, 9, and 13.

## Response to Comment 30-116

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-116 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document criticizes a draft DEIR chapter on water supply. The comment expresses concern that anything that does not find its way into the chapter on water supply will not be shown to have any impacts and argues that that it is too simplistic to look at water supply to identify environmental impacts.

The DEIR states on page 6-15 that if a provision of the Monterey Amendment could cause changes in the way SWP water is stored or conveyed then it was assumed it could have the potential to produce a change in SWP or contractor operations, which might in turn have environmental effects. In Chapter 6, the Department examined each provision of the Monterey Amendment to see if it could result in a change in the way the SWP was operated or how contractors might operate their own systems. If a provision could alter operations then it could have physical consequences and environmental impacts and was analyzed in detail in Chapter 7. If it would not alter operations it was assumed that is would have no physical consequences and environmental impacts. The DEIR determined that the contractual changes with the greatest potential for effects on SWP operations are those that altered water allocation procedures in times of shortage and surplus, enabled transfers and retirements of Table A amounts, and provide for the use of various water supply management practices.

## Response to Comment 30-117

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final

versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-117 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document talks about: simulation versus optimization; calibration; water-year type and hydrology; use of averages; and foresight of operators. See FEIR Subsections 6.3.2.3 and 6.3.2.5.

## Response to Comment 30-118

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-118 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an earlier version of the DEIR. The Department notes however that some statements made regarding individual sentences of a draft chapter from 2005 cannot be verified in this Response to Comments. Those statements that can be clarified are noted here.

One comment claims that the reduction of 100,000 AF in MWD's allocation for 2020 is unexplained. See page 6-18 of the DEIR regarding the transfer of Table A from MWDSC to Desert WA and Coachella Valley WD as part of the Quantification Settlement Agreement on Colorado River water issues. One comment asks for a compilation of all the transfers that have been recognized by the Settlement Agreement. Those transfers are in DEIR Appendix D, and within that document as Settlement Agreement Attachment E.

One comment questions why the CALSIM II runs assumed that San Luis Obispo County would take its full Table A amount in 2020 because infrastructure does not exist that would allow delivery of this amount. See FEIR Subsection 6.3.2.4, heading "Table A."

## Response to Comment 30-119

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-119 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of Chapter 9 Water Supply. Since that time and in part to respond to these comments, the descriptions of the impacts of the proposed project on water supply have been changed

significantly. In the DEIR, the subject is discussed in Chapter 6 Effects of the Proposed Project on the SWP and SWP Contractors.

Most of the comment is directed to page numbers, descriptions, and discussions that are not in the DEIR. Since the discussion of water supply has changed significantly and much of the information referred to is not in the DEIR, it is not possible to respond to each point, nor is it relevant to respond to comments on discussions that do not appear in the DEIR. For example, the comment requests that the allocation studies begin in 1996 rather than 1999. The Department did provide data from 1996 through 2003 in the DEIR. The comment also asks that annual contractor requests be provided. Those initial requests are tabulated in revised Table 6-7 in this FEIR.

See also Response to Comment 30-119 in Chapter 15 for further explanation of how the Semitropic Water Bank works with regard to storage by entities north of the water bank.

## Response to Comment 30-120

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-120 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the CALSIM II model studies in an earlier version of the DEIR that indicate that the Table A transfers and retirements and the altered water allocation method have little effect on Delta exports (DEIR Subsection 6.4.2). See FEIR Subsection 6.3.2.1. The Department believes the comment is claiming that the analysis of the water supply management practices led to a conclusion of no impact. This claim is incorrect. As noted on DEIR page 6-60, the historical analysis determined that the water supply management practices, primarily storage outside contractors' service areas, had resulted in a cumulative total increase in Delta export pumping by the SWP of 44,000 AF between 1996 and 2004. Furthermore, it was conservatively estimated that, extrapolating from historical data, the water supply management practices could result in an increase of 50,000 AF in average annual pumping from the Delta by the SWP in the future. This increase was identified as a potentially significant impact on fisheries resources. In addition, borrowing of water from Castaic Lake and Lake Perris could cause potentially significant adverse environmental impacts on other resources. See FEIR Chapter 15.

## Response to Comment 30-122

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-122 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR

(Comment Letter 30). Specifically, the interim document notes that CALSIM II does not include the KFE, non-conveyance of water (Article 55), and borrowing from the terminal reservoirs, and claims that these would increase Delta exports. The comment is correct. CALSIM II analysis was used to estimate the amount of water available to the SWP under the baseline and proposed project scenarios and to model the parameters discussed above that were affected by Table A transfers and retirements and the altered water allocation method. The analysis found little effect on Delta exports from these programs. The water supply management practices were analyzed in the historical analysis. The analysis found a small, but potentially significant, impact on Delta exports from these practices. See FEIR Subsection 6.3.2.1.

The comment also states that the CALSIM II analysis does not include all Monterey Amendment provisions and therefore is the wrong foundation for the growth analysis. As noted in DEIR Subsection 8.2.2, the M&I contractors that could receive additional water as a result of the proposed project were identified from results in DEIR Chapter 6. For those contractors, the amount of additional water that could be made available was calculated and then the population that could be supported by that amount of water was estimated. A number of M&I contractors would receive an increase in average annual deliveries of SWP water and these deliveries were used in the growth analysis in Chapter 8. An additional analysis of the potential growth-inducing impacts of the water supply management practices is included in FEIR Subsection 8.2.4.

In the DEIR, the Department has noted that non-project water was conveyed in SWP facilities prior to the Monterey Amendment and that the Monterey Amendment clarified the cost provisions (DEIR Subsection 6.2.7). The Department is required by law to convey water for others when capacity is available, and the Monterey Amendment did not alter that requirement. It is not modeled therefore for the proposed project.

Regarding borrowing from the terminal reservoirs, the version of CALSIM II used in the analysis does not include the contractors' borrowing from the terminal reservoirs. To do so would require changes to the model that were not considered necessary since an adequate analysis was done without the use of CALSIM II.

See also Response to Comment 30-122 in FEIR Chapter 15.

## Response to Comment 30-133

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-133 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document indicates that the hydrology used renders the model "unsuitable as an estimator of project deliveries." The water-year type classification definitions and related water quality regulations are defined in SWRCB D-1641. CALSIM II uses a direct translation of D-1641 to define the water year types. The contention that CALSIM II uses perfect knowledge of water-year type is incorrect. Water years start in October and end in September. After consultations with project operators, it was revealed that the SWP Operators feel that the first reliable forecast of the water-year type for a water year is released on February 15$^{th}$ of each year. CALSIM II therefore assumes that February is the first

month that the water-year type classification for the current year is known. CALSIM II uses the previous year's water-year type classification for the months of October to January and then uses the current water-year type classification for the months of February to September. See FEIR Subsection 6.3.2.5.

### Response to Comment 30-142

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-142 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document claims that CALSIM II is an inappropriate tool for analyzing environmental conditions and impacts. The Department disagrees. See FEIR Subsection 6.3.2.3. See also Response to Comment 30-36.

### Response to Comment 31-2

The comment states that due to input from the EIR committee, the Department agreed to conduct a historical analysis which identified increased pumping in the winter. See FEIR Subsection 6.3.2.2.

### Response to Comment 64-20

The comment claims that CALSIM II is an inappropriate tool for analyzing environmental conditions and impacts. The Department disagrees. See FEIR Subsection 6.3.2.3.

The comment mentions statements from the Peer Review and claims that those statements lead to the use of CALSIM II as invalid for the proposed project. See FEIR Subsection 6.3.2.6 which is the Department's summary of such review and Subsection 6.3.2.1 on its use for the proposed project.

One comment argues that CALSIM II does not comprehensively include all critical environmental constraints. See FEIR Subsection 6.3.2.3 for a description of the environmental constraints used in CALSIM II.

Lastly, the comment questions the 4.2 million AF demands used in CALSIM II. See FEIR Subsection 6.3.2.4.

# 7. ANALYTICAL SECTIONS

# 7.0 INTRODUCTION TO ANALYTICAL SECTIONS

# 7.0 INTRODUCTION TO ANALYTICAL SECTIONS

This chapter responds to questions and issues raised with regard to the technical sections in the DEIR Chapter 7. These include comments regarding how the DEIR analyzed the effect of existing and changed conditions on the proposed project and how changed conditions would affect the analysis of potential impacts of the project; whether the analysis in the DEIR would change if the DEIR has covered a time line that extended beyond 2020; methods use to analyze the impacts of the proposed project on hydrology, fisheries, and terrestrial biological resources, including use of the computer model CALSIM II and analyses of historical data; and mitigation measures. It includes the following Sections:

7.1 Surface Water and Groundwater Hydrology, Water Quality, and Water Supply
7.2 Fisheries Impacts
7.3 Terrestrial Biological Impacts
7.4 Visual Resources
7.5 Air Quality
7.6 Geology, Soils, and Mineral Resources
7.7 Recreation
7.8 Energy

# 7.1 SURFACE WATER AND GROUNDWATER HYDROLOGY, WATER QUALITY, AND WATER SUPPLY

# 7.1 SURFACE WATER AND GROUNDWATER HYDROLOGY, WATER QUALITY, AND WATER SUPPLY

## 7.1.1 Introduction

The following responses address comments on the impact analysis contained in DEIR Sections 7.1 Surface Water Hydrology, Water Quality, and Water Supply and 7.2, Groundwater Hydrology and Quality of the DEIR. Comments covered many different issues, including: compliance with water quality standards; water levels and quality in the Delta; groundwater levels; operations and water supply management practices. The comments received on the DEIR's analysis for these issues were specific and require individual responses.

### Comments Addressed

The responses address the following comments: 1-1, 1-2, 6-11, 6-12, 8-1, 8-2, 16-26, 16-36, 16-65, 16-66, 16-68, 16-69, 16-70, 16-71, 16-72, 16-73, 16-74, 16-75, 16-76, 16-77, 16-78, 16-79, 16-80, 16-81, 17-5, 19-3, 21-28, 22-15, 22-16, 30-86, 30-91, 30-148, 47-3, 62-9, 64-1, 64-4, 64-5, 64-6, 64-7, 64-8, 64-21, 64-22, 64-23, and 64-29.

## 7.1.2 Responses to Comments

### Response to Comment 1-1

The comment expresses concern over the "…fundamental water supply sharing between the CVP and SWP to meet common water right permit conditions and the COA elements to address how either water project affects the delivery capabilities of the other project." The comment further expresses concern over the effect of out-of-service-area storage and use of JPOD by the CVP on CVP operations and water supply.

Reclamation and the Department signed the COA in 1986 to address how the SWP and CVP coordinate operations in the Delta, and share obligations for in-basin uses and water quality requirements. As the comment points out, the development of additional storage facilities within the service areas of the projects may cause a change in relative demand between the projects.

The provision of additional storage within the SWP service area has occurred as an initiative of SWP contractors and not an SWP-initiated or SWP-conducted project. The Department does not own or operate any of these new storage facilities. Both CVP and SWP contractors have this ability to increase their storage capabilities, both through groundwater banking programs (e.g., groundwater banks in Kern County) and through construction of surface storage reservoirs (e.g., Diamond Valley Lake, Los Vaqueros Reservoir).

As discussed in DEIR Chapter 6 (Subsection 6.2.5), the Department had approved out-of-service-area storage for MWDSC in the Semitropic groundwater storage facility prior to the proposed project. It is likely that additional groundwater banking projects would have been developed and similar storage arrangements approved by the Department in the absence of the proposed project. However, because the proposed project provided rules for the storage of water outside of contractor service areas, the DEIR evaluates the storage that did occur as if it were an effect of the proposed project.

The times during which the SWP is able to pump added water from the Delta to provide water for these storage facilities are described in detail in the DEIR in Sections 7.1 and 7.3 so that the impact on such operations can be determined. Water quality impacts are evaluated for these events. It appears from the analysis that the operations to pump the added water from the Delta had no adverse impact on water quality and would have had no discernable impact on project responses to meet water quality objectives. In addition, the Delta was in excess conditions during these events within the historical period evaluated.

Because of the conditions required for the Department to pump the added water to replenish the SWP share of San Luis Reservoir to compensate for the SWP contractors' storage programs (namely San Luis Reservoir and other SWP storage facilities south of the Delta are full or at target storage, the Delta is in excess conditions, Banks is permitted to pump more water than required to meet current Table A and Article 21 demands) this added pumping occurs during the winter and spring of the wetter years. In other words, the SWP can only pump additional water attributable to the proposed project, under limited circumstances. As addressed in FEIR Appendix L, these events potentially affect Reclamation's ability to use JPOD.

The Department does not perceive additional instances where the proposed project would affect river flow management and thereby affect CVP operations. However, the Department is willing to work with Reclamation in further evaluating Reclamation's concerns in this matter.

The Department also notes that the pumping from the Delta to serve southern California has been influenced by changes in available water supply sources to serve the region which is not an effect attributable to the proposed project. The Colorado River and the SWP have been the major supply sources for southern California. The QSA signed in 2003 resulted in a decrease in the amount of Colorado River water available to California. To illustrate the impact of that decrease in supply on the demand for imported water from the Delta, it is instructive to look at the magnitude of the two primary imported supply sources available to MWDSC.

During part of this period, MWDSC was filling Diamond Valley Lake (810,000 AF, late 1998-early 2002) and adding some water to groundwater storage programs. In wetter years, demand for imported water may often decrease because local sources are augmented and local rainfall reduces irrigation demand. FEIR Table 7.1-1 illustrates the effects of the wet years from 1995-1998 on demand for imported water and the effect of reduced Colorado River diversions under the QSA on MWDSC deliveries from the Delta. The following annual data are derived from the series of annual reports entitled *Colorado River Accounting and Water Use Report Arizona, California, and Nevada* published by Reclamation, and the Bulletin 132 series published by the Department.

**FEIR TABLE 7.1-1**

**IMPORTED SUPPLIES TO MWDSC FROM THE DELTA AND THE COLORADO RIVER**

| Calendar Year | Sacramento Valley Water Year Type | Delta Supplies | Colorado Supplies | Total |
|---|---|---|---|---|
| 1994 | Critically Dry | 807,866 | 1,303,212 | 2,111,078 |
| 1995 | Wet | 436,042 | 997,414 | 1,433,456 |
| 1996 | Wet | 593,380 | 1,230,353 | 1,823,733 |
| 1997 | Wet | 721,810 | 1,241,821 | 1,963,631 |
| 1998 | Wet | 410,065 | 1,073,125 | 1,483,190 |
| 1999 | Wet | 852,617 | 1,215,224 | 2,067,841 |
| 2000 | Above Normal | 1,541,816 | 1,303,148 | 2,844,964 |
| 2001 | Dry | 1,023,169 | 1,253,579 | 2,276,748 |
| 2002 | Dry | 1,408,919 | 1,241,088 | 2,650,007 |
| 2003 | Above Normal | 1,686,973 | 688,043 | 2,375,016 |
| 2004 | Below Normal | 1,724,380 | 733,095 | 2,457,475 |
| 2005 | Above Normal | 1,616,710 | 839,704 | 2,456,414 |
| 2006 | Wet | 1,521,681* | 594,544 | 2,116,225* |
| 2007 | Dry | 1,395,827* | 713,456* | 2,109,283* |

* These figures are preliminary.

## Response to Comment 1-2

The comment states that the DEIR does not address fundamental issues on the COA elements. See Response to Comment 1-1.

## Response to Comment 6-11

The comment states that the DEIR should more clearly discuss whether the various analyses of the proposed project impacts assumed full compliance with the southern Delta interior agricultural salinity standards. Flow is the primary influence on water quality in the Sacramento-San Joaquin Delta. The proposed project does not involve the discharge of pollutants and so it would only affect Delta water quality if it caused a change in flow in the Delta.

The effects of the proposed project on flow on Delta inflow and outflow are analyzed in the DEIR and summarized on pages 7.1-38 and 7.1-40. The retirements and transfers of Table A amounts and the altered allocation procedures that are a part of the proposed project would have very little effect on Delta inflow and outflow and so would have very little effect on water quality including salinity. Analysis of historical data indicated that some of the water supply management practices that are part of the proposed project reduced Delta outflow between 1996 and 2004. However, the effects on Delta outflow were small, the reductions were never greater than 0.84 percent of outflow (except for event 4 in March of 2004, when the average daily Deltas outflow was reduced by 3 to 13 percent over an eight-day period), and occurred only in six months of the 108 month period. Future effects of the water supply management practices would also be small, with reductions expected to represent about 0.35 percent of Delta outflow. The changes in flow in the Delta attributable to the proposed project are too small to have a measurable effect on water quality anywhere in the Delta, particularly as the changes would only occur in wet months of wet years as indicated in Table 7.1-13 on page 7.1-37 of the DEIR.

The comment stated that the DEIR should more clearly discuss whether the various analyses of the proposed projects' impacts assumed full compliance with the southern delta "interior" agricultural salinity standards. Because the proposed project would have only minimal effects

on flow and water quality in the Delta, and would not impact Delta flows at all during the dry years and summer-fall periods that southern Delta agricultural-based water quality objectives could be difficult to meet, the proposed project would not affect whether the SWP could influence these water quality objectives. Furthermore, the proposed project would not change the margin between the current condition and the water quality objectives. See Response to Comment 6-12.

## Response to Comment 6-12

The comment claims that the DEIR did not discuss or analyze effects on water levels in the south Delta. As analyzed on pages 7.1-40 through 7.1-43 of the DEIR, the proposed project would have very little effect on diversion of water from the Delta by the SWP and no effect on flows in the San Joaquin River. In addition, during the November-March period of wetter years when the incremental operation of the Delta export pumps would occur as a result of the proposed project, water levels are not an issue in the Delta relative to Delta diversions by other lawful diverters. Therefore, the proposed project would have little to no effect on water levels in the southern Delta and would not affect water availability or quality in the southern Delta.

## Response to Comment 8-1

The comment states that the DEIR did not examine Delta water quality beyond the measures incorporated in the modeling to meet water quality standards. CCWD is a CVP contractor. The effects of the proposed project on water quality at the CVP's and CVP contractors' intakes were considered in the analysis for the DEIR. However no specific mention was made of water quality at the CCWD's intakes in the DEIR. Therefore, the last two sentences of the second paragraph on page 7.1-57 of the DEIR are revised to include reference to the CCWD as follows:

> Flow changes of this magnitude are too small to have any effect on water quality at the diversion points of CVP contractor~~s.~~ CCWD's three diversion points in and near the Delta. Consequently, the proposed project would not affect water availability or quality at the CVP's or its contractors' diversion points.

## Response to Comment 8-2

The comment notes that the DEIR overstates the average annual volume of water diverted from the Delta by CCWD. The last two sentences in the second paragraph on page 7.1-9 are revised to read as follows.

> In addition, CCWD, a CVP contractor, diverts ~~its~~ water from Old River and Rock Slough in the south Delta and Mallard Slough in the west Delta. On average, ~~Contra Costa WD diverts 190,000 AFY from the Delta~~CCWD's annual demand is 190,000 AF and diversions are less.

## Response to Comment 16-26

The comment requests clarification of the statement in DEIR Table S-1 on page ES-54 that "Groundwater basin storage projects would raise groundwater levels most of the time with a reduction in levels during extended droughts." On page 7.2-10, the DEIR analysis stated that contractors that stored SWP out-of-service area water in Kern County did so to set aside the stored water for use in dry periods rather than to use it to increase their average annual deliveries of SWP water and that this operating practice would result in water remaining in storage for several years and only being drawn down occasionally. The DEIR stated that

overall, the effect of the additional groundwater banking facilitated by the proposed project was to raise groundwater levels by several feet relative to the baseline and thus the proposed project had a modestly beneficial effect on groundwater levels in Kern County. On page 10.1-22, the DEIR analysis stated that the effects of the proposed project would be to raise water levels in some groundwater subbasins in Kern County as a result of storage in the KWB and storage of SWP water by contractors outside their service areas, a modestly beneficial effect.

To clarify, Table ES-1 on page ES-54 is revised to read as follows.

> Groundwater basin storage projects would raise groundwater levels ~~most of the time with a reduction in levels during extended droughts~~ in some groundwater subbasins in Kern County as a result of storage of water in the KWB and storage of SWP water by contractors outside their service areas and thus would have a modestly beneficial effect.

## Response to Comment 16-36

The comment requests that with regard to the impact chart on page ES-11, Impact 7.1-8, the DEIR be clarified to point out that any project would also include project-specific mitigation actions as required. Please see the discussion under Impact 7.1-8 on pages 7.1-58 through 7.1-61 of the DEIR.

## Response to Comment 16-65

The comment questions the accuracy of the first two sentences in the fifth full paragraph on page 7.1-7 of the DEIR. The sentences describe Delta inflow and were quoted directly from a document published by the California State Water Resources Control Board and referenced in the text. However, as the commenter notes the sentences are not entirely clear and suggest some confusion between unimpaired flows and historical flows. Unimpaired flows are the flows that would have occurred in the absence of dams and diversions. Historical flows are measured or estimated actual flows. The difference between unimpaired and historical Delta inflow are attributable to diversions of water, reservoir reregulation and evaporation, and changed depletions upstream of the Delta.

There is some disagreement among sources with respect to average annual unimpaired and historical Delta inflows. Publications providing a general overview indicate that unimpaired Delta inflow averages about 30 million AFY and historical Delta inflow averages 20 million AFY. A recent publication by the Department estimates that the average unimpaired Delta inflow between 1921 and 2003 was 29.5 million AFY (California Valley Unimpaired Flow Data, Draft Fourth Edition, DWR, 2007). The same publication estimates that the minimum unimpaired Delta inflow in that period was about 7 million AF and the maximum about 73 million AF. Another recent publication by the Department estimates that actual or historical Delta inflow in 2000, an average year, as about 25 million AF (California Water Plan Update 2005, Bulletin 160-05, DWR, 2005).

To improve clarity and reflect more recent information, the fifth full paragraph on page 7.1-7 of the DEIR is revised to read as follows:

> … The Sacramento River contributes an average of 77 percent of the inflow to the Delta, the San Joaquin River contributes about 15 percent of the inflow, and Mokelumne, ~~Consumnes~~Cosumnes, and Calaveras rivers contribute the remainder.

> Unimpaired Delta inflow; that is, the Delta inflow that would occur if there were no dams and diversions upstream of the Delta, averaged about 29.5 million AFY in the period 1921 through 2003. Unimpaired Delta inflow varies widely from year to year and within the year. The minimum unimpaired Delta inflow in that period occurred in 1976 and was about 7 million AF. The maximum unimpaired Delta inflow occurred in 1982 and was about 73 million AF. On a seasonal basis, average monthly unimpaired flow into the Delta varies by more than a factor of 10 between the highest month in the winter or spring and the lowest month in the fall (California Valley Unimpaired Flow Data, Draft Fourth Edition, DWR, 2007).
>
> Historical or measured Delta inflow is less than unimpaired Delta inflow because water is diverted upstream of the Delta for agricultural and municipal use, reservoirs reregulate streamflow over multi-year periods, water evaporates from reservoirs, and stream depletions increase to recharge the groundwater basin to the extent it is affected by pumping in the basin. In 2000, an average runoff year, historical Delta inflow was about 25 million AF, of which 85 percent originated from the Sacramento River watershed, 11 percent from the San Joaquin River watershed and 4 percent from other rivers and streams (California Water Plan Update 2005, Bulletin 160-05, Volume 3, DWR, 2005).

## Response to Comment 16-66

The comment requests that the first paragraph on page 7.1-9 of the DEIR be revised to note that from a fisheries standpoint that the gross diversion of water is what is important. The first paragraph on page 7.1-9 of the DEIR is revised to read as follows:

> Most of the Delta islands are used to grow crops. Delta farmers divert water directly from the Delta channels to irrigate their land. A portion of the diverted water is returned to the Delta channels as agricultural drainage or return water. The average annual net diversion of water for irrigation within the Delta is estimated to be 960,000 AF[10] (note: from a fisheries standpoint, gross diversions are also important).

## Response to Comment 16-68

The comment questions whether the percentages in the text are percentages of historical or unimpaired Delta inflow. They are percentages of historical or actual Delta inflow. The commenter also states that use of Delta inflow masks the fact that the rising diversion percentage could be related to upstream diversions rather than SWP Delta exports. Although the Department agrees that upstream diversions can affect the computation of percentages, this section of the narrative in the Draft EIR is concerned with diversions in the Delta, not total diversions in the watersheds upstream of the Delta, and therefore does not affect impact analyses in the EIR.

## Response to Comment 16-69

The comment requests that the DEIR clarify that the Santa Clara WD is both a SWP and CVP contractor. The fourth paragraph on page 7.1.15 of the DEIR is revised to read as follows:

> … Algae can be drawn into the intake for the San Felipe Division of the CVP, which serves Santa Clara Valley WD (which is both a SWP and CVP contractor) and several smaller CVP contractors. Algae in raw water makes it difficult for municipal water supply agencies to treat water and avoid taste and odor problems. Irrigation districts may be adversely affected because algae can block the emitters in drip irrigation systems. The

> quality problems that occur when storage in San Luis Reservoir is less than 300,000 AF of water do not affect the SWP or its contractors, other than Santa Clara Valley WD's CVP deliveries.

## Response to Comment 16-70

The comment requests that the DEIR clarify that the Trinity River diversion does not flow into Shasta Lake. The fourth paragraph on page 7.1-17 of the DEIR is revised to read as follows:

> North of the Delta, the CVP operates reservoirs on the Trinity, Sacramento and American rivers. Water from the Trinity River, which flows to the Klamath River and to the Pacific Ocean near the California/Oregon border, is diverted into ~~Shasta~~ Whiskeytown Lake. Shasta Lake, the largest CVP reservoir on the Sacramento River ~~with~~ has a capacity of 4.5 million AF. …

## Response to Comment 16-71

The comment requests that the DEIR clarify that impacts of improvements and additions to the SWP implemented between 1996 and 2003 were not related to the proposed project. The last paragraph on page 7.1-17 of the DEIR is revised to read as follows:

> … Any impacts of these improvements are not related to the Monterey Amendment.

## Response to Comment 16-72

The comment requests clarification that the USFWS and NMFS pumping curtailments described in the third paragraph on page 7.1-18 of the DEIR were implemented to reduce take at the pumps and not to increase Delta outflow. The third paragraph on page 7.1-18 of the DEIR is revised to read as follows:

> … The purpose of this fish action was to reduce take of listed species at the pumps, t~~T~~he effect on Delta flows was to increase Delta outflow at times in May and June when threatened and endangered species were present near the pumps.

## Response to Comment 16-73

The comment requests that the last paragraph on page 7.1-23 of the DEIR be revised to include reference to other flow parameters. The last paragraph on page 7.1-23 of the DEIR is revised to read as follows:

> … The numerical fish and wildlife water quality objectives are expressed in terms of dissolved oxygen content, electrical conductivity, Delta outflow as measured by the location of X2, the 2,000 mg/L isohaline, and other flow~~s~~ parameters in the Delta and the Sacramento and San Joaquin rivers. …

## Response to Comment 16-74

The comment states that the reference to 0.15 percent is confusing. The Department disagrees. The point being made is that the proposed project would have no effect on flow in the American and San Joaquin rivers and very little effect on the Sacramento and Feather rivers. It follows that it would have very little effect on Delta inflow.

## Response to Comment 16-75

The comment requests that the fourth paragraph on page 7.1-42 of the DEIR be revised to make reference to Delta outflow. The fourth paragraph on page 7.1-42 of the DEIR is revised to read as follows:

> … An important parameter with respect to ~~water quality~~ Delta outflow is the average position of X2, the 2,000 mg/L isohaline. The position of X2 is measured as the distance in kilometers from the Golden Gate. As shown in Table 7.1-14, the Table A transfers and retirements and the altered water allocation procedures that are a part of the proposed project would have no effect on the average Delta outflow as measured by the average location of X2 in most hydrologic year types compared to the baseline scenario. …

## Response to Comment 16-76

The comment requests that the reference to Table 7.1-15 in the last paragraph on page 7.1-44 of the DEIR be revised to refer to Table 7.1-17. The last paragraph on page 7.1-44 of the DEIR is revised to read as follows:

> … The estimates are shown in Table 7.1-~~15~~17. The estimates account for the Table A transfers and retirements and the altered water allocation procedures but not the new water supply management practices. An important parameter with respect to ~~water quality~~ Delta outflow is the average position of X2, the 2,000 mg/L isohaline. As shown in Table 7.1-~~15~~17, the Table A transfers and retirements and the altered water allocation procedures that are a part of the proposed project would have no effect on the average Delta outflow as measured by the average location of X2 in most hydrologic year types compared to the baseline scenario. …

## Response to Comment 16-77

The comment requests that the last paragraph on page 7.1-44 of the DEIR be revised to make reference to Delta outflow in place of water quality. See Response to Comment 16-76.

## Response to Comment 16-78

The comment requests that the last paragraph on page 7.1-44 of the DEIR be revised to make reference to Delta outflow as measured by the average location of X2. See Response to Comment 16-76.

## Response to Comment 16-79

The comment requests that the reference to “delayed” in the first sentence of the last paragraph on page 7.1-51 of the DEIR be revised to “delay.” The first sentence of the last paragraph on page 7.1-51 of the DEIR is revised to read as follows:

> Using historical data from the period 1996 through 2004, the Department determined that in the future the water supply management practices would increase average annual deliveries of SWP water by about 50,000 AFY ~~per year~~, which would delay~~ed~~ the filling of San Luis Reservoir by several months on occasion (Study No. 3). …

## Response to Comment 16-80

The comment requests that endnote 50 (referenced on page 7.1-37 of the DEIR) be revised to refer to the correct water amounts. Endnote 50 is revised to read as follows:

> Between 1996 and ~~2003~~ 2004, a relatively wet period, a total of about 371,400 AF of SWP water was delivered for recharge in the Kern Water Bank (about 353,000 AF by the Kern Water Bank Authority member entities, and 18,400 AF by KCWA) ~~several KCWA member agencies placed about 750,000 AF of SWP water in storage in the Kern Water Bank.~~ These agencies had the ability to place SWP water in storage in Kern County when it was available prior to the Monterey Amendment. A survey conducted by KCWA indicated that in the absence of the Kern Water Bank the agencies would have stored the SWP water elsewhere in Kern County. Thus, the ~~placement of 750,000~~ delivery of 371,000 AF of SWP water in groundwater storage in the Kern Water Bank would not have had any effect on delta outflow.

## Response to Comment 16-81

The comment requests that the reference to "capacity" in the third sentence of the last paragraph on 7.2-10 of the DEIR be revised to "capability." The third sentence of the last paragraph on page 7.2-10 of the DEIR is revised to read as follows:

> … Several new groundwater banks are planned in Kern County so total storage ~~capacity~~ capability is expected to increase in the future. …

## Response to Comment 17-5

The comment asserts that the Department has not adequately analyzed certain operational limitations on the SWP, especially with regard to south Delta salinity objectives. The comment also notes that some of the summer barriers installed in the south Delta are for water level purposes rather than water quality purposes.

Because the proposed project would have only minimal effects on flow and water quality in the Delta, and would not impact Delta flows at all during the dry years and summer-fall periods that southern Delta agricultural-based water quality objectives could be difficult to meet, the proposed project would not have an effect on the SWP ability or inability to comply with these water quality objectives. Furthermore, the proposed project would not change the margin between the current condition and the water quality objectives. See also Responses to Comments 6-11 and 6-12.

## Response to Comment 19-3

The comment states that the DEIR does not include any description of groundwater, groundwater management plans or groundwater plans for conjunctive use in the Sacramento Valley and suggests that the DEIR should examine a number of plans relating to water planning in the Sacramento Valley. The proposed project does not include any elements that would affect groundwater levels in the Sacramento Valley and so the DEIR did not discuss the topic. The analysis in the DEIR did not make significance findings with respect to impacts of the proposed project on ground water or surface water in the Sacramento or San Joaquin Valley outside of the Delta. See DEIR pages 7.1-34 through 7.1-41 and Chapter 7.2. The Department recognizes, however, that current and future operations and activities of the SWP and its contractors may have an impact on or be affected by ongoing conditions and activities in these

areas. Some of these activities include the Sacramento Valley Water Management Plan (Phase 8), the Yuba County Water Agency transfer of water, the Sacramento Valley Integrated Water Plan, and various efforts by SWP contractors and others to purchase Sacramento Valley water. These projects and activities may affect the environment and the effects are discussed in relevant environmental and planning documents. To the extent that there is a relationship of the environmental effects of these projects and the proposed project, it is discussed in Chapter 10 of the DEIR and Chapter 10 of this FEIR. See FEIR Section 10.1, Response to Comments 19-6 and 64-2 for a discussion of various projects or plans listed in the comment which relate to the Sacramento Valley. See also Response to Comment 19-3 in FEIR Section 6.2 and Response to Comments 19-3 and 19-6 in FEIR Chapter 10.

## Response to Comment 21-28

The comment states that the DEIR: assumed that the SWP could access groundwater from the Sacramento River basin; that the SWP has no right to this groundwater; and that there is no mention in the DEIR of the potential environmental problems that may result from tapping into this aquifer and/or the fallacy of relying on this water as a source of supply for the SWP.

The DEIR did not find any significant impacts of the proposed project on groundwater or surface water in the Sacramento or San Joaquin Valley outside of the Delta. See Response to Comment 19-3. See also FEIR Subsections 5.2.1.2 on the objectives of the proposed project, 6.2.2 on changed conditions, 9.4 and 9.6 on water supply reliability, and 14.2.2 on SWP water rights.

## Response to Comment 22-15

The comment notes that it would be much more informative for the DEIR to show the trends in stream flows as the project matures. It also notes some inconsistencies in the data presented. The purpose of Table 7.1-2 on page 7.1-5 in Section 7.1 of the DEIR was to provide the reader with an overall picture of the relative magnitude and seasonal variability of flow in streams that could potentially be affected by the proposed project. The Department recognizes that flow data averaged over a period of time provides only limited information. The periods over which data is averaged could respond to flow-affecting events, for example, completion of a reservoir, or it could use a common period regardless of events occurring during the period. The Department chose the latter approach and provided data for the period 1956 to 1995, just prior to implementation of the proposed project. In some cases, measurements at a particular gauging station were discontinued prior to 1995 and as a result the record at that station is abbreviated.

River flows shown in the table would not be expected to sum up to Delta outflow. The rivers shown, together with others tributary to the Delta and not shown in the table, would be expected to sum up to Delta inflow. Net Delta outflow is approximately equal to Delta inflow minus diversions for export and use within the Delta.

Only limited flow data was presented in the DEIR because it was apparent that the proposed project would have only a minor effect on river flow and Delta outflow. Presentation of large amounts of data on a particular environmental element in the setting section of an EIR is inappropriate when it is known that the impacts on the environmental element are minor. Detailed flow data is available for inspection by interested parties at the sources referenced in Table 7.1-2 on page 7.1-5 of the DEIR.

Although limited flow data was presented in the environmental setting section of the DEIR, hydrologic data from a 73-year period was used in the analysis of project effects conducted using CALSIM II. Monthly flows in rivers tributary to the Delta are simulated in CALSIM II.

Only limited water quality data was presented in the environmental setting section of the DEIR (Tables 7.1-3 and 7.1-4 on pages 7.1-5 and 7.1-6, respectively) because it was apparent the proposed project would have only a minor effect on water quality in rivers and the Delta.

See also Response to Comment 22-15 in FEIR Chapter 6.3.

## Response to Comment 22-16

The comment claims that there are frequency charts used throughout the DEIR. There are no frequency charts in the DEIR although there are some in Appendix F. For more information, see response to comments on Methods in Chapter 6 of this Final EIR, including CALSIM II.

## Response to Comment 30-86

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-86 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that the project discussion did not adequately assess the consequences of the proposed action for joint state and federal operations of the SWP and the CVP. See Response to Comment 1-1.

## Response to Comment 30-91

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-91 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document cites several court decisions and indicates that these decisions may change flows in the Sacramento and San Joaquin Rivers. The comment notes that there may be less water in the Sacramento River and more in the San Joaquin River.

The Department acknowledges that these decisions could change Delta inflow volumes and timing in the future. The actual effect of these decisions is not yet known with any precision, and whether they would affect the SWP share of export pumping is not known. Any changes in Delta inflow due to these decisions are not predictable at this time, and any attempt to determine how the changes would affect SWP operations is speculative.

Regardless of the changes and their magnitude, the EIR analyzes a broad range of hydrologic conditions that sufficiently brackets Delta inflow from flood flows to droughts. Any decrease in Delta inflow would mean that the system would experience more dry-type years as modeled; increases in inflow from the San Joaquin River would improve water quality and increase Delta inflow.

Any change in Delta inflow would affect the baseline and the with-project case in an identical manner, and the impact of the proposed project would be the same as analyzed in the EIR. Therefore, the Department believes that the analysis of the impacts of the proposed project in the EIR is accurate and adequate. See Response to Comment 30-91 in FEIR Section 6.2.

**Response to Comment 30-148**

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-148 is a letter provided to the Department by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the comment asks that the DEIR alternatives analysis analyze the full water quality impacts associated with actions that result in timing, salinity or temperature of water in Lake Oroville, the Feather River, the Sacramento River and the Bay-Delta estuary. It also states that alternatives (other than the no project alternative) should address the full impacts resulting from the implementation of the turn-back pool (including the sale to contractors) Table A transfers, storage outside the service area and expanded use of Article 21.

The DEIR examined all the impacts of the project with regard to water quality and determined that any potential impacts were less than significant. See DEIR Section 7.1 on Surface Water Hydrology, Water Quality and Water Supply. See also the discussion in FEIR Subsection 7.2.2.2 on the POD.

## Response to Comment 47-3

The comment states that geological reports on groundwater overstate its availability. The commenter's opinion is noted. The proposed project includes provisions that encourage groundwater banking and therefore would likely result in an increase in conjunctive use of surface and groundwater but it does not include proposals to increase groundwater use by the SWP or any other party. See Response to Comment 19-3 and Response to Comment 47-3 in Section 6.2.

## Response to Comment 62-9

The comment points out that water evaporates from surface reservoirs in California at a high rate and suggests that evaporative losses associated with surface water storage should be compared to the losses that occur when water flows down a river and percolates into a groundwater basin. Surface storage and groundwater storage are both subject to losses, in the case of the latter by percolation into deep groundwater bodies and lateral flow. The relative magnitude of the losses depends on circumstances.

The proposed project does not include the addition of surface water reservoirs to the SWP. It does include provisions that encourage storage outside of SWP contractors' service areas. Based on history and availability of banking facilities, most of the storage by SWP contractors outside of their own service areas is expected to occur in groundwater basins in Kern County. See Response to Comment 62-9 in FEIR Section 6.2.

## Response to Comment 64-1

The comment states that the EIR fails to analyze or disclose impacts to the environmental economy of Butte County that are likely to occur as a result of the increased water exports that are enabled by the proposed project. The DEIR did not find any significant impacts of the proposed project on groundwater or surface water in the Sacramento or San Joaquin Valley outside of the Delta. See also Response to Comment 19-3.

## Response to Comment 64-4

The comment states that the settlement agreements between agricultural and urban contractors that remove water shortage provisions create incentives for contractors to replace annual crops with permanent crops and this will reduce flexibility and increase demands to develop drought water supplies such as conjunctive use of the Sacramento Valley groundwater as well as deeper draining of the Oroville Reservoir. The DEIR did not find any significant impacts of the proposed project on groundwater or surface water in the Sacramento or San Joaquin Valley outside of the Delta. See also Response to Comment 19-3.

## Response to Comment 64-5

The comment expresses concerns about how Oroville Reservoir has affected the economy of Butte County and states that it hopes the FEIR will "analyze some of the impacts to Butte County associated with the more aggressive operation of the Oroville Reservoir that will be necessary during drought conditions where the decrease flexibility that is inherent in the installation of permanent crops where temporary crops are currently existing." The DEIR did not find any significant impacts of the proposed project on groundwater or surface water in the Sacramento or San Joaquin Valley outside of the Delta. See Response to Comment 19-3.

## Response to Comment 64-6

The comment expresses concern, generally, about export of ground water from Butte County to users in the San Joaquin Valley, including impact on fish. It states that there should be an analysis of these effects if the groundwater in Butte County is developed as a groundwater bank to meet the proposed project demands. The DEIR did not find any significant impacts of the proposed project on groundwater or surface water in the Sacramento or San Joaquin Valley outside of the Delta. See also Response to Comment 19-3.

## Response to Comment 64-7

The comment asks how impacts to areas of origin will be monitored and who will gather the data and report the possible impacts to the economy and the environment of Butte County. The DEIR did not find any significant impacts of the proposed project on ground water or surface water in the Sacramento or San Joaquin Valley outside of the Delta. See Response to Comment 19-3.

See also Response to Comment 64-7 in FEIR Chapter 13 on how the proposed project does not affect areas of origin rights.

### Response to Comment 64-8

The comment expresses concern about the effects of using Butte County groundwater as part of the state water supply because it could dewater residual hardwood growths. The DEIR did not find any significant impacts of the proposed project on groundwater or surface water in the Sacramento or San Joaquin Valley outside of the Delta. See also Response to Comment 19-3.

### Response to Comment 64-21

The comment expresses concern about the groundwater pumping in Northern California, especially with regard to the Lower Tuscan Aquifer. The DEIR did not find any significant impacts of the proposed project on groundwater or surface water in the Sacramento or San Joaquin Valley outside of the Delta. See also Response to Comment 19-3 and Response to Comment 64-21 in FEIR Section 7.2.

### Response to Comment 64-22

The comment expresses concern about the groundwater pumping in Northern California, especially with regard to the Lower Tuscan Aquifer. The DEIR did not find any significant impacts of the proposed project on groundwater or surface water in the Sacramento or San Joaquin Valley outside of the Delta. See also Response to Comment 19-3.

### Response to Comment 64-23

The comment states that the SWP relies on both water quantity and quality from the Sacramento and Feather Rivers and that it is important that water quality be protected. The Department agrees. However, as stated in the Draft EIR on pages 7.1-41 through 7.1-44 the proposed project would have no effect on water quality in the Sacramento and Feather Rivers.

### Response to Comment 64-29

The comments focus on current hydrologic conditions, including low storage in Lake Shasta and Oroville Reservoir. The comment also mentions use of JPOD to move federal water at Banks. DWR acknowledges the comments on the low reservoir storage, and agrees the storage was low in spring and summer 2008.

Reclamation occasionally uses Banks to move federal CVP water under JPOD. As analyzed in the DEIR on pages 7.1-56 through 7.1-58, there was no historical impact of the proposed project on CVP use of JPOD from 1996-2005. However, there could be a small impact in the future from the proposed project reducing the time during which excess capacity at Banks would be available to the CVP as described in those same pages. The analysis of potential impacts on federal use of JPOD is detailed in DEIR Appendix L. See also Response to Comment 1-1.

## 7.2 FISHERIES IMPACTS

# 7.2 FISHERIES IMPACTS

## 7.2.1 Introduction

The following responses address comments on the fisheries, the POD, and the Delta impact analysis contained in Section 7.3 of the DEIR. The Department received a number of comments regarding the impact of the proposed project on POD, the Delta, and Delta fisheries. A number of comments also requested that the EIR incorporate recent findings from the POD science team into the impact analysis. Comments also covered other primary issues including environmental compliance. Some comments ask for a discussion of impacts and measures of the SWP in its entirety. The master response is organized by the following subtopics:

7.2.2.1 Environmental Compliance
7.2.2.2 Pelagic Organism Decline and the Bay-Delta Estuary

Some of the comments received on the DEIR's fisheries section are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments received is included in Subsection 7.2.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include references to the appropriate subsection or subsections of the master response where the comment is addressed.

Text changes to the DEIR Section 7.3 are presented in Subsection 7.2.3 and 7.2.4 and are included in Chapter 2 of this FEIR.

### Comments Addressed

This section addresses the following comments: 6-6, 6-7, 6-8, 16-12, 16-13, 16-81, 16-82, 16-83, 16-84, 16-85, 16-86, 16-87, 16-88, 16-89, 16-90, 16-91, 16-92, 17-10, 20-9, 21-24, 21-26, 21-27, 21-29, 21-30, 21-31, 21-32, 21-33, 21-34, 21-35, 21-36, 22-21, 26-3, 26-5, 26-7, 30-43, 30-56, 30-84, 30-127, 30-143, 30-145, 30-149, 31-5, 35-4, 36-1, 36-13, 36-14, 36-15, 36-16, 64-14, 64-16, 64-18, 64-21, 64-31, 64-32, 65-5, 65-12, 65-22, 66-5, and 67-4.

## 7.2.2 Master Response

### Summary

This EIR examines changes resulting from the proposed project (the Monterey Amendment and the Settlement Agreement) and its potential environmental impacts. It is not an EIR on all the operations and impacts of the SWP or on all of the problems regarding the Delta or relating to land use and water supply. The Monterey Amendment is an agreement between the Department and the SWP contractors primarily about how exported water that is available to the SWP is allocated and managed. The Department has and continues to export SWP water to the SWP contractors in compliance with all State and federal environmental laws and regulations. The Department recognizes that there are conflicts between the management of water supply and fisheries in the Delta and is actively participating in a number of programs that are focused on resolving those conflicts while benefiting the Delta ecosystem. The conflicts in the Delta between aquatic resources, particularly listed fish species, and water exports, would

continue to exist even if there was no proposed project and thus under CEQA they are part of the baseline conditions rather than program-generated environmental impacts that determine the required range of program alternatives. This EIR does not need to address all of the environmental impacts that may be associated with operation of the SWP or to address all of the Delta's existing problems that existed before the Monterey Amendment. It only needs to study in detail the adverse impacts generated by the proposed project and mitigation measures and alternatives that address those project-generated impacts.

To help in the understanding of the issues, this master response discusses the existing and future regulatory framework that governs the operation of the SWP. It then discusses the impacts and mitigation measures for impacts of the proposed project on the Delta. It also updates information on the status of the decline of pelagic organism and on salmonids in the Delta.

When exporting water from the Delta the Department must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, and regulations relating to Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other users. The needs of other users include in-Delta users and the water rights of the areas of origin of Delta inflow. These requirements include applicable SWRCB orders, Corps permits, Biological Opinions and other regulatory constraints including any relevant judicial orders in effect at the time of the operation. They have established water quality and flow requirements and limits on the rate of export of water that can be pumped by the state and federal pumping plants. These regulatory requirements, however, do not affect how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported from the Delta. See FEIR Subsections 14.2.1, 14.2.3 and 7.2.2.1.3.

The only change resulting from the Monterey Amendment that has the potential to cause increased exports and adverse impacts on Delta fisheries is the implementation of the water supply management practices. The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

The EIR found that some of the water supply management practices could have a small but potentially significant impact on fisheries resources in the Delta. The Department has determined that its commitment to continue to operate the SWP facilities in compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will minimize, avoid and/or reduce potential effects on the Delta aquatic environment from the proposed project now and in the future to a less than significant level. The Department has determined that relying on the requirements of the existing regulatory process is not improper deferral of mitigation. See FEIR Subsection 7.2.2.1.3.

The DEIR recognized the existence of the POD, but the CALFED Bay-Delta program, using the best available science at the time, was based on the assumption that the SWP operations, in compliance with environmental regulatory restrictions and with voluntary pumping curtailments, compensated by EWA, would not adversely affect special status species and could prevent a further decline of the POD species. The DEIR recognized the multiple stressors currently thought to be responsible for the decline of the POD species, including entrainment, food web changes, introduced species and contamination and more recently, predation. It also recognized that water project operations were being examined as a potential environmental stressor as part of the POD investigations. See page 7.3-25 of the DEIR. See also FEIR Subsection 7.2.2.2. Even though SWP and CVP operations in the Delta have become more constrained recently by the court and regulatory agencies, the populations of at-risk fish have not rebounded. Therefore, additional environmental regulatory restrictions have been placed on SWP exports by both courts and regulatory agencies since publication of the DEIR based on their view that the best available science at this time requires minimizing the effects of pumping on fisheries populations in order to prevent further jeopardy of sensitive fish species and habitat. As a result, it is expected that estimated future exports will decrease and any resulting impacts will be less under the new regulatory restrictions than under the 2003 regulatory scenario described in the DEIR, and therefore no new environmental impact analysis is required. See FEIR Subsection 7.2.2.2. See also FEIR Subsection 11.2.4.2 on reduced export pumping.

### 7.2.2.1 Environmental Compliance

#### 7.2.2.1.1 Existing Regulatory Programs from 2003 to 2008

Comments addressed in this subsection include: 6-6, 6-7, 17-10, 21-24, 21-34, 21-35, 26-3, 26-5, 30-84, 30-149, 31-5, 35-4, 36-13, 64-14, 64-18, 65-5, 65-12, and 65-22.

A number of comments state that the DEIR did not consider recent changes in court and agency protections for the Delta. Others state that the EWA, “no-net loss” (under SWRCB Decision 1641 export “limitations”) and altered export operations have caused the drastic and catastrophic decline of the fish species. Others suggest that the SWP export facilities are being operated without “take” authorization under the CESA and that the CVP was operating under (later) voided Biological Opinions.

*Introduction*

This EIR examines changes resulting from the proposed project (the Monterey Amendment and the Settlement Agreement) and its potential environmental impacts. It is not an EIR on all the operations and impacts of the SWP or on all of the problems regarding the Delta or relating to land use and water supply. The Monterey Amendment is an agreement between the Department and the SWP contractors primarily about how exported water that is available to the SWP is allocated and managed. The Department has and continues to export SWP water to the SWP contractors in compliance with all State and federal environmental laws and regulations. The Department recognizes that there are conflicts between the management of water supply and fisheries in the Delta and is actively participating in a number of programs that are focused on resolving those conflicts while benefiting the Delta ecosystem. The conflicts in the Delta between aquatic resources, particularly listed fish species, and water exports, would continue to exist even if there was no proposed project. This presents a situation similar to that confronted by the California Supreme Court in *In re Bay-Delta* regarding the CALFED program, where the Court found that conflicts in the Delta between aquatic resources, particularly listed fish species, and water exports, would continue to exist even if there was no proposed project

and thus under CEQA they are part of the baseline conditions rather than program-generated environmental impacts that determine the required range of program alternatives This EIR does not need to address all of the environmental impacts that may be associated with operation of the SWP or to address all of the Delta's existing problems that existed before the Monterey Amendment. It only needs to study in detail the adverse impacts generated by the proposed project and mitigation measures and alternatives that address those project-generated impacts. See FEIR Subsection 5.2.1.1.

In addition, the Department is also actively involved in programs focused on understanding the causes and finding the solutions for the current decline in fisheries resources and POD. Scientific information developed since 2003 on the fisheries is included in FEIR Subsection 7.2.4.1 on Salmon and Subsection 7.2.4.2 Decline of Delta Pelagic Organisms. See FEIR Subsection 5.2.3.2 for a discussion of other water policy actions.

To help ensure compliance with all environmental regulatory constraints, the Department follows a set of mitigation and environmental programs (some already in place and some forthcoming; including those on pages 7.3-69 through 7.3-71 of the DEIR). This mitigation is designed to minimize, avoid or reduce potential impacts to a level that is less than significant on the environment.

The fishery regulatory setting is discussed in the DEIR on pages 7.3-28 through 7.3-30 and more specifically with regard to pelagic fisheries on pages 7.3-52 through 7.3-53 and pages 7.3-69 through 7.3-71. These discussions include environmental agreements and regulatory constraints or restrictions on project operations such as the CALFED process decisions, SWRCB Decisions, federal Biological Opinions for delta smelt and salmonids, the Delta Pumping Fish Protection Agreement (Delta Fish Agreement), and EWA and EWA-type programs. Different regulatory constraints control actions in the Delta at different times. Those in place as of the time of the DEIR are fully described in Chapter 7 of the DEIR.

There is no dispute that several species, including delta smelt, winter- and spring-run salmon, steelhead, and green sturgeon, are currently at risk. See FEIR Subsection 7.2.2.2 for more discussion on the decline of POD and FEIR Section 7.4 for an update on POD and salmonid species. Exports and operations of the SWP are subject to numerous environmental laws and regulations relating to fisheries. The most significant laws affecting the SWP activities in the Delta currently are laws relating to SWRCB water rights and State and federal endangered species law. These are discussed in more detail below.

### *Federal*

#### Federal Biological Opinions for Protection of the Delta, including Delta Smelt and Salmonids

As stated in the DEIR on page 7.3-70, in June 2007, Judge Wanger of the United States District Court in Fresno found the USFWS's Biological Opinion for delta smelt to be invalid, but he did not vacate the Biological Opinion. Following this decision, he held several days of evidentiary hearings to address plaintiff's concerns that the invalid opinion would continue to be in effect pending completion of a new delta smelt opinion. On December 14, 2007, he issued an order for interim operational constraints on the SWP and CVP Delta exports, in addition to others already existing, that would be in effect until a new Biological Opinion is adopted. This 2007 Wanger order which was planned as a one year remedy phase operation is called the Wanger decision in this FEIR. Since the court's order above, the Department operated the export pumps in compliance with the court's decision in addition to all other applicable constraints, until

a new USFWS Biological Opinion for delta smelt was released on December 15, 2008. This document is incorporated by reference in the EIR pursuant to CEQA Guidelines Section 15150. Since then, the Department has been operating pursuant to the new Biological Opinion. Separate lawsuits have been filed challenging the validity of this Biological Opinion.

In April 2008, Judge Wanger also found the NMFS Biological Opinion for various salmon and steelhead subgroups to be invalid, but also did not vacate the Opinion. He held hearings during the summer to determine if an interim remedy hearing or actions would be needed pending the completing of a new Salmon Biological Opinion. An interim remedy was not ordered and the Department operated the export pumps in compliance with all other applicable constraints, including those for delta smelt. The new NMFS Biological Opinion for salmonids was issued in June 2009. This document is incorporated by reference in the EIR pursuant to CEQA Guidelines Section 15150. Separate lawsuits have been filed challenging the validity of this Biological Opinion.

As part of the process required for obtaining biological opinions, the Bureau and the Department prepared a Biological Assessment (BA) on the Continued Long-term Operations of the Central Valley Project and the State Water Project. This document, commonly referred to as the Long-Term Operational Criteria and Plan for Coordination of the Central Valley Project and State Water Project or OCAP explains the operations of the SWP and CVP and their impacts on delta smelt and salmonids. This document is incorporated by reference in the EIR pursuant to CEQA Guidelines Section 15150.

### U.S Army Corps of Engineers Permit

The diversion of water at Banks for pumping purposes is also controlled by permits issued by the Corps under Section 10 of the Rivers and Harbors Act. See FEIR Subsection 14.2.2.2 for more discussion on the Corps Permits.

## *State*

### SWRCB Water Rights

As discussed in the DEIR on pages 6-2 and 7.1-29, the SWP is operated pursuant to water rights and orders issued by the SWRCB. The foundation of California water rights is the recognition of the public trust and the constitutional prohibition on waste and unreasonable use, a requirement that water resources of the State be put to a beneficial use. Based on this foundation, water rights are issued, in the case of the SWP, by the SWRCB. As discussed in the DEIR on pages 6-2 and 7.1-29, the SWP is operated pursuant to water rights permit issued by the SWRCB. In 1978, the SWRCB adopted Water Rights Decisions 1485 (D-1485) adopting the Bay/Delta WQCP and modified the terms and conditions of the Department and Bureau permits making the projects solely responsible for meeting the water quality objectives of the water quality control plan. D-1485 established minimum flows in the Delta and limited exports of water by the SWP and CVP. The SWRCB adopted new water quality and flow objectives in 1995 as part of the 1995 Bay-Delta WQCP, and a new water rights decision (SWRCB Decision 1641), implementing the 1995 WQCP, was issued on December 29, 1999 (revised March 15, 2000). Prior to that time, from December 1995 through December 1999, the SWP and CVP voluntarily operated to meet the new objectives. SWRCB Decision 1641 was the subject of an EIR prepared by the SWRCB. SWRCB Decision 1641 and the Implementation EIR prepared by the SWRCB were challenged by numerous parties. In 2006 the Third District Court of Appeal issued a decision on the consolidated cases affirming the validity of SWRCB Decision 1641 and the Implementation EIR (SWRCB cases). SWRCB Decision 1641, the Corps permit for the

SWP, and the SWP biological opinions imposed to protect endangered species, set restrictive limits and standards on the SWP and CVP export operations from the Delta, regardless of how the exported water was eventually classified by these water projects (Table A, Article 21, or other classifications). The 1995 Bay-Delta WQCP, the 1995 Bay-Delta WQCP Implementation EIR and SWRCB Decision 1641 are incorporated by reference in the EIR pursuant to CEQA Guidelines Section 15150. In 2006, the SWRCB issued an updated WQCP but it did not change any requirements in SWRCB Decision 1641.

### CESA Litigation and Department of Water Resources Banks Pumping Plant Operations

Spring-run salmon and delta smelt are listed as threatened, and winter-run salmon are listed as endangered by the California Fish and Game Commission under CESA (see updated Table 7.3-5 in Subsection 7.2.4). In October 2006, a lawsuit was filed against the Department alleging that operation of the SWP was in violation of certain provisions of CESA. The trial court held the Department was in violation of CESA and ordered the Department to obtain CESA take authorization from the CDFG or cease exporting water at its Banks Pumping Plant. The Department and SWP contractors appealed the decision, which stayed the order of the lower court. In addition, the appellate court granted the parties request to stay the appellate proceedings to allow time for the federal Biological Opinions on these species to be issued. This was done with the understanding that once the federal Biological Opinions discussed above that cover effects of the SWP operations were completed, the Department would work with CDFG to obtain the requested CESA compliance. The federal Biological Opinion for Delta smelt was completed in December 2008 and the Biological Opinion for salmonids was complete in June 2009. Based on these federal Biological Opinions, the Department requested from CDFG that the opinions be determined consistent with CESA. In 2009, DFG issued consistency determinations for delta smelt and salmon which provides DWR take authorization as required by the trial court. DWR dismissed its appeal and is waiting for other appellate matters to resolve so that it can request a dismissal of the trial court order based on DWR's satisfaction of the order.

### Longfin Smelt - New CESA Listing

On February 29, 2008, the California Fish and Game Commission accepted a petition to list longfin smelt (*Spirincus thaleichthys*), thereby establishing its candidacy for listing under CESA. During the period that the CDFG analyzed whether listing was warranted, the Commission issued a regulation allowing for the take of the candidate species. At the end of January 2009, CDFG submitted a Status Review with a recommendation to the Commission. Based on this recommendation, on March 4, 2009, the commission listed longfin smelt as threatened under CESA. In anticipation of this listing, the Department submitted an application for a Section 2081 Incidental Take Permit to comply with CESA and allow incidental take of longfin smelt. CDFG issued an Incidental Take Permit under CESA for longfin smelt on February 23, 2009. The permit includes a number of conditions, including restrictions on SWP operations in the Delta based on estuarine conditions and longfin smelt distribution, evaluating fish screen efficiencies, and funding monitoring of longfin smelt sampling. This permit has been challenged by the water users. The CDFG Incidental Take Permit for longfin smelt and the DWR and DFG Notice of Determinations and Negative Declarations regarding the Take Permit are incorporated by reference in the EIR pursuant to CEQA Guidelines Section 15150.

#### *Summary*

Thus since the publication of the DEIR, new regulatory restrictions have been imposed on SWP operations which significantly reduce exports from the Delta. These restrictions include the

2007 interim Wanger decision which was replaced by the USFWS Biological Opinion for delta smelt issued in December 2008. In February 2009, additional restrictions were included in the CDFG Incidental Take Permit for longfin smelt and NMFS added more restrictions in its Biological Opinion for salmonids issued in June 2009. These new regulatory restrictions are based on the OCAP and assess the operation of the SWP and include the Monterey Amendment as part of SWP operations. These restrictions are based upon what the regulatory agencies consider to be the current best available science and are, in their view, necessary to minimize the effects of pumping on fisheries populations currently and in the future in order to prevent jeopardy and protect listed fish species and habitat. The biological opinions and permits for these listed species include requirements that improve Delta aquatic habitat through export restrictions, changes in Delta flows, and land-based projects to restore fish habitat. In addition, requirements include improvements in handling of fish salvaged at the fish protection facilities and other measures to improve fish survival. Such requirements also improve the Delta ecosystem and provide benefits to other fish besides those listed under the state and federal endangered species acts. Although the DEIR presented information that effects of the proposed project on non-listed species are less than significant, the protections provided by the current and future regulatory requirements will provide benefits to the non-listed species. These decisions, SWRCB orders and Corps permits control the conditions under which the Department can export SWP water from the Delta, and do not restrict how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported. See FEIR Subsections 7.2.2.1.3.

### 7.2.2.1.2 Should the DEIR Consider a No Increased Exports Alternative Resulting from Changing Regulatory Conditions

Comments addressed in this subsection include: 6-6, 6-7, 17-10, 21-34, 21-35, 26-3, 30-149, 36-14, and 64-18.

Some comments state that the SWP and CVP are operating without legal authority and that the EIR must have a no-project scenario or alternative that “assumes that SWP exports will be very limited unless and until the Department applies for and receives a take permit under CESA” and that “until this or some legally equivalent action occurs, there is not authorization to take smelt (and other species) and therefore pumping cannot occur when take is likely or in fact occurs.” Some comments also state that the Department cannot “assume that EWA or any actions are sufficient to mitigate the adverse impacts to the fisheries since EWA” and the “DEIR fails to examine a scenario where exports are radically reduced due to existing environmental regulations and endangered species laws.”

The suggested alternative is not an alternative to implementation of the Monterey Amendment but addresses the entire operation of the SWP. If changed regulatory requirements cut back exports, the action would reflect a response of the regulatory agencies to the operation of the entire SWP, not just to the small potential increase in exports resulting from implementation of the Monterey Amendment. This regulatory action would not be an alternative chosen by the Department as part of the decision to implement the Monterey Amendment. Regulatory cutbacks would be the result of discretionary decisions made independently by the regulatory agencies responding to the entire SWP.

Although the following comments pertain to the SWP generally and not to the proposed Monterey Amendment, the Department provides the following response in the interest of promoting public understanding of the SWP.

The Department considers the SWP to be in compliance with all laws and regulations currently in effect. Recent regulatory requirements have resulted in fewer exports. As discussed in the DEIR on pages 11-7 through 11-30 and clarified in Chapter 11 (Alternatives) of the FEIR, the no project alternative variations reflect differences in what parts of the Monterey Amendment would be implemented. NPA 1 is the same as the baseline (or no Monterey Amendment) except that it includes development of a state-owned water bank on the KFE property with a capacity of 500,000 AF (see Chapter 11 of the DEIR). All of the alternatives would be subject to the regulatory environment that exists at that time. If changes to the regulatory environment in the future result in further decreases in exports, SWP exports would be lower than those assumed in the modeling and the amount of water delivered to SWP contractors would be less. Thus, years when full Table A demands are met and Article 21water is available would be fewer. If future regulatory conditions result in decreases in water pumped from the Delta for any reason, the environmental analysis would show reduced impacts compared to those shown in the DEIR. The DEIR explained why reducing exports was not a feasible alternative to the proposed project. See DEIR Section 11.2 and FEIR Subsection 11.2.4.2. In addition, The FEIR also includes an analysis of the effects of operating the SWP with Article 18(b) invoked and limited or no Article 21 water delivered to SWP contractors. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3. See also FEIR Subsection 5.2.3.2 for a discussion of the relationship between the proposed project and other water policy actions.

#### 7.2.2.1.3 Impact Analysis and Mitigation

Comments addressed in this subsection include: 6-6, 6-7, 6-8, 16-12, 16-13, 17-10, 20-9, 21-24, 21-26, 21-31, 21-32, 21-33, 21-34, 21-35, 22-21, 26-3, 26-5, 26-7, 30-43, 30-56, 30-127, 30-149, 31-5, 35-4, 36-1, 36-13, 36-15, 64-14, 64-18, 64-32, 64-31, 65-5, 65-12, and 65-22.

*Impacts Identified in the DEIR*

As discussed in FEIR Subsection 14.2.5.2, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta and have no impact on Delta fisheries resources. Potential impacts on the Delta aquatic environment identified in the DEIR are:

Impact 7.3-6 Delta Outflow Changes

The DEIR determined that implementation of the proposed project would not affect special status fish species in the Delta due to outflow changes (less than 0.03 percent for the period 1996-2004 [DEIR page 7.3-74] and less than 0.35 percent of average annual Delta outflow in the future). It concluded that any reductions in Delta outflow attributable to the proposed project are too small to have a measurable effect on X2, particularly as the reductions would only occur in wet months of wet years when X2 is typically at its seasonally most downstream location. See DEIR pages 7.1-13 and 7.3-73 for a discussion of the X2 concept.

Impact 10.1-1 Cumulative Impact Relating to Outflow from the Delta

The DEIR concluded that the proposed projects contribution to flow in the Delta changes would not be cumulatively considerable and that because the proposed project would contribute less than 0.15 percent to the total cumulative change in flows in the Sacramento and Feather Rivers, and approximately 0.35 percent of the average annual Delta outflow, the project's contribution to

decreased water quality would not be considerable and this would be a less than significant cumulative impact. See DEIR pages 10.1-22 and 10.1-23.

### Impact 10.1-2 Cumulative Impact

The DEIR concluded that for the future impact analysis, compared to baseline conditions, potential exists for the proposed project to have an adverse impact on Delta fish species as a result of higher pumping at Banks as a result of the water supply management practices and that this was a potentially significant cumulative impact. It also concluded that implementation of Mitigation Measure 7.3-5 would limit the proposed project's contribution and this would be a less-than-significant impact. See DEIR pages 10.1-22 through 10.1-26. See also the discussion of Impact 7.3-5 below regarding the potential impacts and mitigation relating to the water supply management practices.

### Impact 7.3-5 the Water Supply Management Practices

The only change resulting from the Monterey Amendment that has the potential to cause an adverse impact on Delta fisheries is the implementation of the water supply management practices. These potential additional exports and their impact on Delta fisheries are analyzed in Subsection 7.3.3 of the DEIR (see Impacts 7.3-5 and 7.3-6; pages 7.3-42 to 7.3-77 of the DEIR). Impact 7.3-5 (pages 7.3-42 to 7.3-73 of the DEIR) recognizes that implementation of the water supply management practices facilitated by the Monterey Amendment could possibly result in longer periods of sustained Delta export pumping relative to the baseline at certain times from November through March (see DEIR Impact 7.3-5) when water is available to be exported by the SWP within permitted levels in compliance with State and federal regulatory permits and other requirements, in effect at the time of pumping, that provide protection for the Delta aquatic environment, including for water quality, listed species and other aquatic resources. The DEIR concluded that although past implementation of the water supply management practices did not result in a significant impact, there was a small, but potentially significant, impact from the proposed project due to future application of the water supply management practices that could increase Delta exports at times when special-status fish species could be near the pumps. The magnitude of this impact depends on the timing of the increased export rate, the location of at-risk fish, the influence of export pumping on in-Delta channel flows, and other factors. The adverse impact on Delta fish species would be evidenced by increased salvage at the Skinner Fish Facility as a result of increased exports from Banks Pumping Plant during certain periods. This impact is discussed in more detail in FEIR Subsection 15.2.2. The discussion explains why the amounts discussed below are overstated and likely to be less.

### Past Impacts

With regard to past impacts (1996 to 2004), the DEIR found that the water supply management practices increased Delta exports and reduced Delta outflow by a cumulative total amount of 44,000 AF compared to the baseline scenario, equal to 0.03 percent of total Delta outflow during that nine-year period (DEIR page 7.3-74) and concluded that this increase was less than significant. The increase in Delta exports occurred during four events: January 13, 1998 (1,000 AF; a wet year), February 24 through March 31 of 1999 (3,000 AF; a wet year), February 22 through March 31 of 2000 (14,000 AF; an above normal year), and March 23 through March 30 of 2004 (26,000 AF; a below normal year). Some comments criticize the determination of the DEIR on page 7.3-53 that the impacts due to increased exports during the period 1996 to 2003 were less than significant based on the analysis of the four export events that occurred during that time, and based on the consideration of the Department and regulatory agencies

that existing standards and the EWA would be sufficient to prevent export pumping from adversely impacting special-status species.

The comments claim that the analysis should consider current knowledge regarding the POD. The Department reviewed the four events in light of today's current knowledge about the special-status species and this review discussed below confirms the conclusions of the DEIR that implementation of the water supply management practices from 1996 to 2004 were less than significant. FEIR Subsections 7.2.2.2 and 7.4.2 provide current information on the POD.

## Updated Analysis of Impacts of Past Water Supply Management Practices

As stated in the DEIR on pages 7.3-44:

> The Department determined that these Monterey Amendment provisions [Water Supply Management Practices] resulted in increased pumping in a few months from 1996 to 2004. Increased pumping was infrequent because from 1996 to 2004 there were only a few months when these provisions resulted in an added SWP demand at a time when the contractors otherwise had all the SWP water they could use or store, and all SWP reservoirs south of the Delta were full or at their storage targets. The Department estimates that from 1996 to 2004, these provisions resulted in the SWP pumping a total of about 44,000 AF more at the Banks Pumping Plant than it would have under the baseline scenario. Thus, from 1996 to 2004 (see note below), these Monterey Amendment provisions increased Delta exports and reduced Delta outflow by a total of about 44,000 AF. The increase in Delta exports occurred during four events: January 13, 1998 (a wet year); February 24 through March 31 of 1999 (a wet year), February 22 through March 31 of 2000 (an above normal year), and March 23 through March 30 of 2004 (a below normal year).

The DEIR, on pages 7.3-45 through 7.3-52, documents an event by event description of increased pumping due to the proposed project as a percentage of total Delta outflow. The daily increment in pumping due to the proposed project as a percentage of total Delta outflow ranged from 0.03 to 2.9 percent (excluding Event 4 which occurred outside the time designated for this analysis; there was no salvage of delta smelt during or immediately following Event 4). 73 out of 76 days analyzed had increases in pumping less than 0.29 percent of Delta outflow. The results are summarized briefly below; however, for further information regarding this analysis, its methodology and assumptions, see DEIR Appendix K.

### Event 1: January 13, 1998 (Table 7.3-22 of the DEIR)

This proposed project-induced pumping represented about three additional hours of Banks pumping at the export level that had prevailed for multiple days prior to the event. During those three hours on January 13, 1998 the project-induced pumping represented about 9.1 percent of Delta outflow for that brief period, equivalent to a 1.14 percent increase on a daily basis. The next project-induced pumping event did not occur until more than a year later.

### Event 2: February 24, 1999 through March 31, 1999 (Table 7.3-23 of the DEIR)

During the week prior to February 24, 1999, pumping at Banks Pumping Plant was down to zero twice, and within the 70 cfs range three times. The pumping at Banks Pumping Plant increased to 2,552 cfs on the day that the proposed project-induced pumping began. At this time salvage numbers began to increase. However, the proposed project-induced pumping only added 200 AF per day (ranging from 0.09 to 0.11 percent of Delta outflow) for the first five days, and then added only 65 AF per day (ranging from 0.03 to 0.08 percent of Delta outflow) to base pumping

at Banks Pumping Plant for the rest of the impact period. The general increase in pumping may have led to increased salvage; however, the extra pumping due to the proposed project was minimal and probably did not contribute to increased salvage.

Pumping at Banks was curtailed later in the spring to address an increase in delta smelt salvage at the Skinner facility. Banks pumping was curtailed by 292,000 AF between May 20, 1999 and June 30, 1999 to address the salvage of delta smelt.

Event 3: February 22, 2000 through March 31, 2000 (Table 7.3-24 of the DEIR)

Pumping at Banks Pumping Plant was upwards of 9,000 cfs just prior to February 22, 2000. Of the pumping that actually occurred during this event, the first two days of the proposed project-induced pumping include 6,300 AF (2.9 percent of Delta outflow) and 4,077 AF (1.6 percent of Delta outflow), respectively, and then the proposed project-induced pumping reduced to 129 AF per day (ranging from 0.04 to 0.27 percent of Delta outflow) over the base level for the duration of the impact period. During the impact period, overall pumping at Banks Pumping Plant ranged daily from levels of 2,000 cfs up to a high 8,000 cfs. Also, Old and Middle river flows moved back to the positive, before returning negative again towards the end of the impact period. Delta smelt salvage numbers generally decline throughout the impact period, while splittail levels remain consistent, with the exception of a spike on March 20 and 21, 2000. This could possibly be from Old and Middle river flows going from positive to negative three days prior. Overall Banks Pumping Plant pumping also increased at this time. Based on the evidence from this event, it seems unlikely that the proposed project exacerbated the salvage numbers.

Pumping at Banks was curtailed later in the spring to address an increase in delta smelt salvage at the Skinner facility. Banks pumping was curtailed by 28,000 AF between May 25, 2000 and May 31, 2000 to address the salvage of delta smelt.

Event 4: March 23, 2004 through March 30, 2004 (Table 7.3-25 of the DEIR)

During the week prior to March 23, 2004 Old and Middle river flows were between -5,000 and -10,000 cfs. There was no recorded salvage of delta smelt at the Skinner facility during this period, although there was continued salvage of splittail. When reverse flows in Old and Middle rivers combined exceed 5,000 cfs, fish salvage at the pumps tends to increase (this is an especially dangerous time for juveniles, although few would be expected in the area in March). The salvage numbers relative to the salvage numbers prior to the proposed project-induced pumping seem to support this. Pumping at Banks Pumping Plant was around 6,500 cfs during the impact period, and dropped to 4,000 cfs after the impact period.

The proposed project-induced pumping had no impact on delta smelt in 2004, as there was no salvage during or following Event 4.

### Future Impacts

The DEIR also concluded that there was a small, but potentially significant, impact from the proposed project on fisheries due to future application of the water supply management practices as a result of increased Delta export pumping even though this increased pumping would be in compliance with current and future regulatory requirements. Assuming hydrologic conditions in the future are similar to those that occurred from 1996 to 2004, the DEIR (pages 6-63 and 7.3-69), concluded that water supply management practices could potentially increase SWP deliveries by a cumulative total of approximately 450,000 AF over a nine year period. This amounts to an average annual increase of about 50,000 AFY (or 1.6 percent of the average annual SWP deliveries) based on assumed operations under the 2003 regulatory baseline. The

estimate of future project-related export pumping was based on historical events that occurred in 6 out of 9 years ranging from 20,000 AF to 132,000 AF.

The DEIR points out on pages 6-63 and 6-65 that this estimate may overstate the effects of the water management practices because of a number of factors. These include:

- The future estimate of an average of about 50,000 AF per year is based on extrapolation of the historical period of 1996 through 2004, when hydrologic conditions in the Sacramento-San Joaquin watershed were wetter than average.
- As demand increases in contractors' service areas, the contractors will need their SWP water to meet immediate needs, making less SWP water available for storage outside their service areas for future dry years.
- The analysis did not include the effects of the retirement of 45,000 AF of demand and the permanent Table A transfers, which will decrease the estimated future impact by some undetermined amount. Because the two analyses are different, analysis results by year type cannot readily be combined. However, in general, the net Delta export changes would most likely be evident in wetter years.
- More stringent constraints on export pumping will also result in less water that could be banked outside of service areas for future dry years. For information on recent regulatory changes that will constrain future Delta export pumping, see FEIR Subsection 7.2.2.1.1 and the Mitigation section below.

Less water for outside service storage area would result in a decreased potential for an adverse impact on the Delta from that identified in the DEIR.

### *Mitigation*

A number of comments questioned mitigation for pumping impacts potentially caused by water supply management practices. Others had questions regarding Mitigation Measure 7.3.5, especially with regard to the application of the EWA or an equivalent program.

### SWP Operates Subject to Current Delta Regulatory Processes

When exporting water from the Delta the Department must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, and regulations relating to Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other users. The needs of other users include in-Delta users and the water rights of the areas of origin of Delta inflow. These requirements include applicable SWRCB orders, Corps permits, Biological Opinions and other regulatory constraints including any relevant judicial orders in effect at the time of the operation. They have established water quality and flow requirements and limits on the rate of export of water that can be pumped by the state and federal pumping plants. These regulatory requirements, however, do not affect how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported from the Delta. See FEIR Subsection 14.2.1 and 14.2.3.

The underlying fundamental purpose of the Monterey Agreement and the Monterey Amendment is to resolve conflicts and disputes between and among the urban and agricultural SWP contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. One key objective of the Monterey Agreement and the

Monterey Amendment is to facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies. The primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water The Monterey Amendment does not increase Delta exports beyond permitted limits. See FEIR Subsection 5.2.1.2.

As discussed above in FEIR Subsection 7.2.2.1.1, the DEIR used Delta regulatory restrictions in effect in 2003 as part of the environmental setting in evaluating impacts of the proposed project. See FEIR Subsection 6.3.2.3. Since the publication of the DEIR, new regulatory restrictions have been imposed on SWP operations which significantly reduce exports from the Delta. These restrictions include the 2007 interim Wanger decision which was replaced by the USFWS Biological Opinion for delta smelt issued in December 2008. In February 2009, additional restrictions were included in the CDFG Incidental Take Permit for longfin smelt and NMFS added more restrictions in its Biological Opinion for salmonids issued in June 2009. These new regulatory restrictions are based on the OCAP assess the operation of the SWP and include the Monterey Amendment as part of SWP operations. These restrictions are based upon what the regulatory agencies consider to be the current best available science and are, in their view, necessary to minimize the effects of pumping on fisheries populations currently and in the future in order to prevent jeopardy and protect listed fish species and habitat. The biological opinions and permits for these listed species include requirements that improve Delta aquatic habitat through export restrictions, changes in Delta flows, and land-based projects to restore fish habitat. In addition, requirements include improvements in handling of fish salvaged at the fish protection facilities and other measures to improve fish survival. Such requirements also improve the Delta ecosystem and provide benefits to other fish besides those listed under the state and federal endangered species acts. Although the DEIR presented information that effects of the proposed project on non-listed species are less than significant, the protections provided by the current and future regulatory requirements will provide benefits to the non-listed species. These decisions, SWRCB orders (including SWRCB Decision 1641) and the Corps permits control the conditions under which the Department can export SWP water from the Delta, and do not restrict how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported. See FEIR Subsection 7.2.2.1.1.

In summary, the DEIR presented information regarding future environmental impacts of the proposed project under a regulatory scenario in effect in 2003 that had fewer protective restrictions on Delta export pumping than exist today. Estimated future exports are expected to decrease and any resulting impacts are likely to be less under the regulatory restrictions in effect as of June 2009 and therefore no new environmental impact analysis is required. See FEIR Subsection 7.2.2.1.1.

### Mitigation for Future Delta Impacts

As discussed in the paragraph above, in those few years when water supply management practices may have an impact, the SWP will be operated in compliance with State and federal regulatory permits and other requirements, in effect at the time of the export pumping, that provide protection for the Delta aquatic environment, including for water quality, listed species and other aquatic resources. These requirements include constraints set by federal and State agencies under State and federal endangered species laws for operations of the SWP, including any operations resulting from the Monterey Amendment, which are designed to minimize the effects of pumping on fisheries populations currently and in the future in order to prevent jeopardy and protect listed species and habitat. See pages 7.3-69 through 7.3-71 of the DEIR

and FEIR Subsection 7.2.2.1.1. The requirements described in the federal and State permits and opinions are in effect and on-going, although they are subject to change. For example, the 2004 NMFS Biological Opinion for salmonids was replaced in June 2009 with a new opinion. Despite possible future changes in regulatory requirements, DWR believes that the regulatory agencies will continue their oversight and permitting responsibilities by conditioning SWP operations to appropriately protect the Delta aquatic environment. Therefore, in this case, the Department has determined that it is appropriate under CEQA to rely on this continual and on-going regulatory process to mitigate any potential current and future impacts to the Delta aquatic environment from the proposed project. The Department has determined that its commitment to continue to operate the SWP facilities in compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will minimize, avoid and/or reduce potential effects on the Delta aquatic environment from the proposed project now and in the future to a less-than-significant level. If the Department were to propose additional specific mitigation measures, conflict would be likely given the uncertainties about the relative importance of the factors causing the fish declines in the Delta, the variety of possible measures to deal with them, and the differences among experts on Delta conditions. The Department has determined that relying on the requirements of the existing regulatory process is not improper deferral of mitigation. Mitigation measures discussed are not indefinite and vague possibilities; they are being imposed on the SWP right now in ways that include mitigation of the Monterey Amendment Delta impacts.

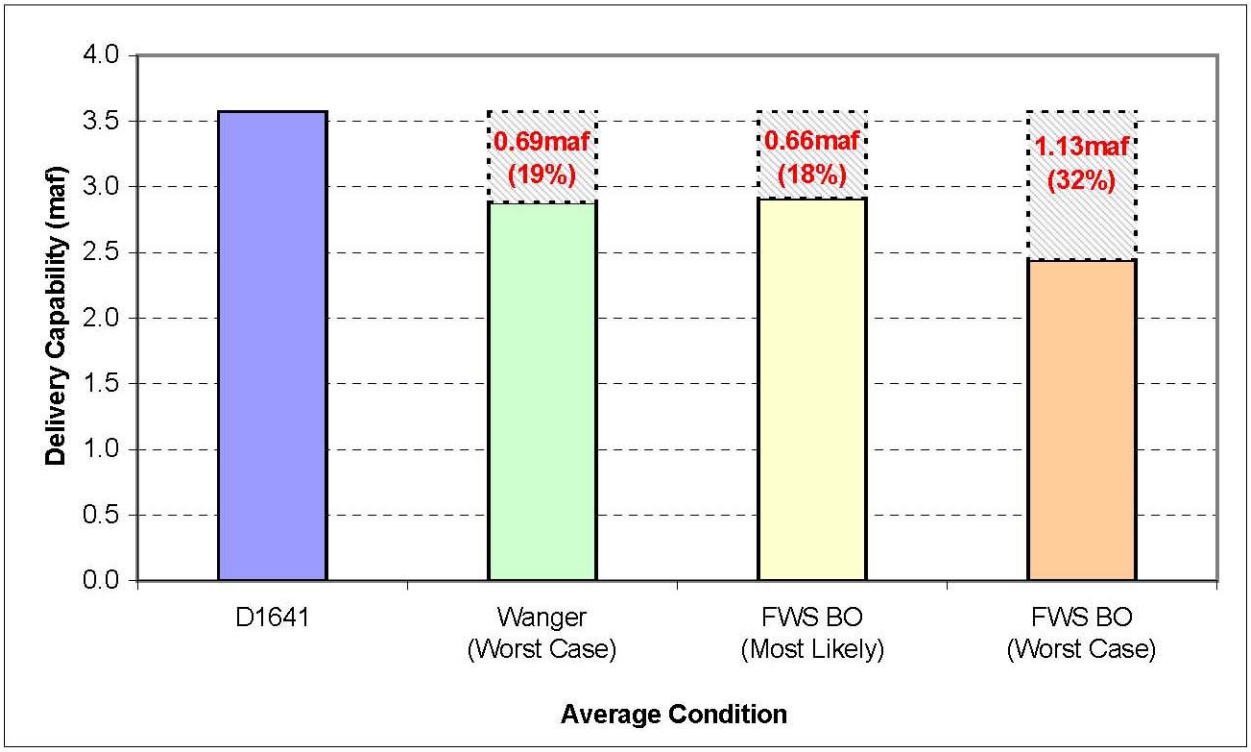
The Department has also determined that its compliance with the requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will comprise the mitigation measures that will minimize, avoid or reduce potential effects to a less than significant effect on the Delta aquatic environment from the proposed project now and in the future. The next few paragraphs further clarify the relationship between the recent regulatory requirements and the mitigation proposed in the DEIR.

The Department has committed 48,000 AF of water from the Yuba Accord and the SWP to the VAMP (for more information on VAMP see page 7.1-33 in the DEIR) and associated actions as part of the resources to provide fish protection as part of the OCAP BA and the Delta smelt Biological Opinion. See discussion on EWA in FEIR Subsection 7.2.2.1.5. The Department may continue to use EWA assets to help recover water supplies lost as a result of new regulatory restrictions. However, the new Biological Opinions and Incidental Take Permit impose requirements that reduce export pumping substantially in excess of the value of these assets. Therefore, while EWA-type programs may be in place, the Department is no longer relying on the EWA to mitigate for fisheries impacts in the future. The operational assets included in Mitigation Measure 7.3-5 as granted to the EWA in the CALFED ROD are described in the Delta smelt Biological Opinion and will be used to help recover a portion of the water supply lost to pumping curtailments for fish protection.

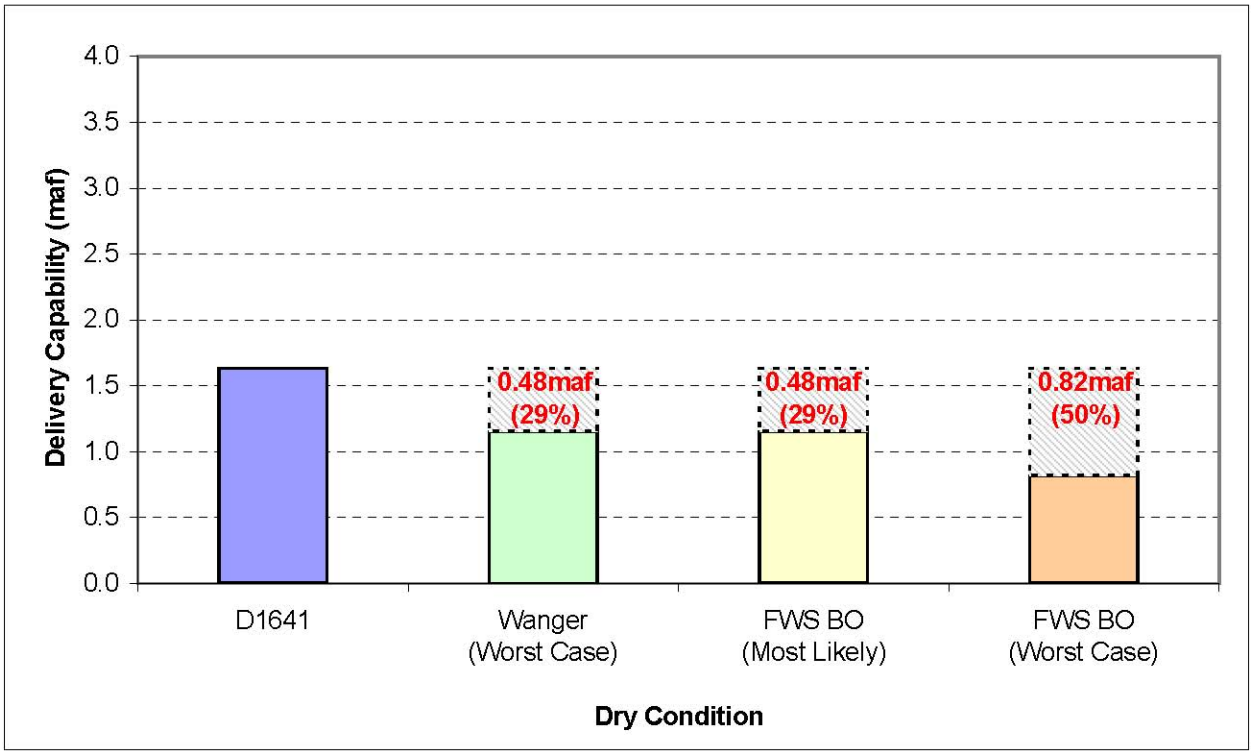
The current USFWS Biological Opinion for delta smelt and the CDFG Incidental Take Permit for longfin smelt for SWP operations include specified additional measures that further reduce the rate at which water is available for export to the SWP from December through June. These measures include actions such as: (1) restrictions to SWP Delta diversions in December through June to restrict movement of fish into the central and south delta and reduce entrainment; (2) habitat improvements through restoration of a specific amount of Delta acreage; (3) improvements in handling and trucking of salvaged fish from the Skinner fish facility; (4) additional monitoring; and (5) other measures to improve survival of fish. The Department analyzed the effects of the restrictions to SWP diversions required under the 2008 USFWS Biological Opinion for delta smelt. This analysis estimates that the measures restricting Delta exports will reduce SWP deliveries during average water conditions by about 20 to 30

percent (or about 660,000 AF), and under certain dry water conditions up to 50 percent (or about 480,000 AF) depending on hydrologic conditions. See FEIR Figures 7.2-1 and 7.2-2 showing Estimated SWP Delivery Impacts (FEIR Appendix E, Part 1, John Leahigh tables attachment to DWR News Release December 15, 2008).

FEIR Figure 7.2-1
Estimated SWP Delivery Impacts
(Reduction from pre-Wanger regulation (D1641))



FEIR Figure 7.2-2
Estimated SWP Delivery Impacts




maf = Million acre feet

The period of time in which these restrictions are in place is the same period when potential future impacts from the Monterey Amendment's water supply management practices could occur. The potential impact of exporting water for these management practices under the 2003 baseline conditions is a potential annual average 50,000 AF, with a possible range of between 0 to 132,000 AF. The new restrictions are expected to significantly reduce opportunities when Delta exports supporting deliveries resulting from the water supply management practices could occur. With fewer opportunities to export water to fill storage areas in the contractor's service areas, there will be fewer potential impacts from the water supply management practices. The recent restrictions on SWP deliveries demonstrate that the Delta regulatory process responds to changing conditions by adjusting the SWP operations to protect sensitive species and their environment.

Responding to these regulatory requirements, the Department has modified Measure 7.3-5 for potential direct, indirect and cumulative impacts resulting from the water supply management practices to clarify that the Department will continue to operate the SWP Delta export facilities in compliance with requirements of federal and State agencies in effect at the time of operation, to avoid, reduce, or minimize potential impacts on the Delta aquatic environment, including water quality, listed species and other aquatic resources caused by SWP pumping attributable to the proposed project. See Response to Comment 6-8 for the specific modification to Mitigation Measure 7.3-5. See also FEIR Chapter 2.

In summary, revisions to Mitigation Measure 7.3-5 are for clarification and do not change the conclusion of the DEIR on page 7.3-71 that implementation of the mitigation measure in combination with environmental programs already in place or forthcoming that are relevant to the SWP would reduce this impact to a less-than-significant level.

## Reliance on Existing Regulatory Processes is not Improper Deferral

Some comments have stated they think that reliance on the continuing and ongoing regulatory process, including existing and forthcoming Biological Opinions and other regulatory requirements, is improper deferral of mitigation measures. Other comments have suggested that the Department should propose additional mitigation measures on its own, separate from the current Delta regulatory forums.

The Department has determined that relying on the requirements of the existing regulatory process is not improper deferral of mitigation. Mitigation measures discussed are not indefinite and vague possibilities; they are being imposed on the SWP right now in ways that include mitigation of the Monterey Amendment Delta impacts.

This mitigation approach is consistent with Section 15126.4 (a)(1)(B) of the CEQA Guidelines, which provides: "Where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way."

The Department has relied upon the following facts and conclusions in reaching its determination that relying on the existing regulatory process is not improper deferral of mitigation.

- A comprehensive and complex regulatory system exists that is designed to protect the Delta aquatic environment. Agencies that have regulatory authority over the SWP operations in the Delta currently include the SWRCB, the Corps, UWFWS, NMFS and CDFG. The Department and the water contractors cannot circumvent their obligations under regulatory requirements by changing the terms of the long-term water supply contracts. SWP operation under the proposed project, which includes operating pursuant to the Monterey Amendment, is subject to these requirements and any additional water exports from the Bay-Delta potentially due to the proposed project ultimately must be within the export limitations imposed by all appropriate and legally applicable permits and rules mandated by State and federal agencies for the SWP in effect at the time of operation.
- Mitigation requirements regarding Delta export pumping are not general standards but are developed by regulatory agencies specifically regarding Delta export pumping. Because neither the Delta aquatic environment nor the regulatory constraints are static, Delta export pumping will occur within regulatory constraints that respond to seasonal and daily environmental conditions. There are many on-going studies by the Department, fishery agencies and others to try to determine causes of declines of fisheries in the Delta. Both the courts and regulatory agencies have shown that they are willing to require enforceable changes in limits on Delta export pumping based on new information regarding impacts and/or mitigation due to SWP Delta operations where the information indicates an operational change is needed to reduce impacts on listed species. These changes are individually crafted measures designed for SWP Delta operations.
- Changing regulations based upon re-evaluating conditions at the time can be characterized as a change in future conditions under which the proposed project will operate. These future conditions have the potential to influence the environment in

which the proposed project operates and may affect the magnitude of impacts of the proposed project on the environment.

- In order to operate SWP Delta diversion facilities, the Department must obtain from the State and federal fishery agencies biological opinions and/or take permits, including take permits received through a habitat protection plan, that include detailed operating conditions to prevent jeopardy and protect listed fish species and habitat. As a result of recent court decisions and other factors, including the POD, the fishery agencies have developed and are developing biological opinions and take permits that include operating criteria for the SWP. This FEIR recognizes that the Delta smelt Biological Opinion, the NMFS Biological Opinion for salmonids and the CDFG Incidental Take Permit for longfin smelt have been released. This fact has been included in this FEIR Master Response and in appropriate responses to comments.
- The requirements under the federal and State endangered species laws and their regulations prohibit the "take" of listed species unless the Department and USBR operate the SWP and CVP as required under the biological opinions and permits. The federal biological opinions include conditions to protect Critical Habitat in the Delta by prohibiting "any significant habitat modification or degradation that results in death or injury of wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering." (50 CFR 222.102) In addition, the biological opinions look at the effects of an action on the species and critical habitat together with effects of other activities that are interrelated and interdependent. The effects analysis also considers cumulative effects of future State or private activities that are reasonably certain to occur (50 CFR 402.02). The Fish and Game Code (FGC) requirements for issuance of a "take" permit for listed species, such as the longfin smelt, requires CDFG to determine, based on the best scientific and other information that is reasonably available, the adverse impacts of the taking of the listed species in light of several factors, including reasonably foreseeable impacts on the species from other related projects and activities. (FGC section 2081(c)). Finally, the FGC requires CEQA compliance prior to issuing a take permit.
- The Department has reviewed the requirements of the State and federal endangered species laws, including the current Delta smelt and salmonid Biological Opinions and the longfin smelt Incidental Take Permit, as well as other Delta regulatory programs, with regard to potential direct, indirect and cumulative impacts of the proposed project on the Delta aquatic environment, including water quality, listed species and other aquatic resources. It has determined that, in this particular case, they are either equally or more protective than the CEQA standard of less than significant.
- In *In re Bay-Delta* the Supreme Court also recognized that Bay-Delta ecosystem restoration to protect endangered species is mandated by both state and federal endangered species laws, and for this reason water exports from the Bay-Delta ultimately must be subordinated to these laws. This DEIR and FEIR both recognize that the Monterey Amendment actions are also subject to these same endangered species and other Delta regulatory laws and therefore are subordinate to legally applicable requirements in effect at the time.
- Furthermore, independent mitigation measures by the Department are not necessary in the context of current regulatory and governmental processes relating to the Delta. Independent actions by the Department could cause impacts in other areas of the Delta aquatic environment or to other users, and potential changes need to be considered in the context of contemporaneous regulatory and non-regulatory actions. See FEIR Subsection 5.2.3.2 on the relationship of the proposed project to other water policy

actions, including the Bay Delta Conservation Plan and Delta Vision. If the Department were to propose specific mitigation measures, conflict would be likely given the uncertainties about the relative importance of the factors causing the fish declines in the Delta, the variety of possible measures to deal with them, and the differences among experts on Delta conditions. If the Department were to make separate commitments about specific operating procedures, the Department would likely need to change to other operating procedures required by a fishery agency opinion or permit.

### 7.2.2.1.4 Sampling of Entrained Fish

Comments addressed in this subsection include: 17-10, 21-30, 21-31, 26-3, and 30-56.

Sampling of fish at the Skinner Delta Fish Protective Facility is used to estimate salvage for the monitoring of incidental take of listed fish species. Total entrainment is calculated based on estimates of the number of fish salvaged. Salvage is an index of entrainment (loss). However, this number greatly underestimates the actual number of fish entrained. It does not include losses through the guidance louvers. For Banks Pumping Plant in particular, it does not account for high rates of predation on fish in Clifton Court Forebay. Fish less than 30 millimeter fork length are not efficiently collected by the fish screens.

Currently, there are no estimates of loss for delta smelt. The Department acknowledges that the observed salvage of delta smelt only represents a fraction of the total number of delta smelt entrained by the pumping facilities. While the DEIR does not estimate the number of Delta smelt lost, it does conclude on page 7.3-71 that the future impact on Delta fish species as a result of higher pumping at Banks by the proposed project is potentially significant. See further discussion on this issue in FEIR Subsection 7.2.2.1.3.

Comment 21-31 questions the use of the term “negligible” used to describe the number of fish taken in Events 2 and 3 on page 7.3-51 of the DEIR. Events 2 and 3 describe four time periods where the proposed project resulted in additional pumping at Bank Pumping Plant. The term “negligible” was not used in the fisheries analysis (see Section 7.3 of the DEIR). If the data indicate an increase in exports and correlated increase in fish salvage numbers, the event demonstrates a possible impact to delta fish populations. During certain events (see Tables 7.3-22 through 7.3-34 in the DEIR) the salvage numbers showed no noticeable increase during periods of increased exports due to the water supply management practices. When considered in context with the analysis of the four events discussed on pages 7.3-45 through 7.3-51 of the DEIR and compliance with environmental programs relevant to the SWP which were already in place (see pages 7.3-52 and 7.3-53 of the DEIR), the proposed project from 1996 to 2003 had a less-than-significant impact on listed fish species in the Delta due to effects of the water supply management practices.

### 7.2.2.1.5 Environmental Water Account

Comments addressed in this subsection include: 21-26, 21-27, 22-21, 30-43, 30-127, 30-145, 36-15, 64-21, 64-32, and 67-4.

Several comments addressed issues regarding the EWA. As stated in FER Subsection 7.2.2.1.3, the Department may continue to use EWA assets to help recover water supplies lost as a result of new regulatory restrictions. However, the new regulatory restrictions impose constraints that reduce export pumping substantially in excess of the value of these assets. Therefore, while EWA-type programs may be in place, the Department is no longer relying on the EWA to mitigate for fisheries impacts in the future.

This discussion provides an update on the status of the program, its operations, and assets, and responds to other issues raised by the comments. The impacts of the EWA are not due to the Monterey Amendment and were covered in the EIR/EIS on the EWA. The following background and information on the EWA is included in this FEIR so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. To the extent that these issues are related to potential physical changes in the environment, they have already been included in the EIR. See FEIR Subsection 4.2.1.3.

Descriptions of the EWA are located in the DEIR on pages 6-12 to 6-14; 7.1-18; 7.1-34 and 7.1-61. The EWA Operating Principles Agreement provided the basis for the operation of the EWA Program since the CALFED Record of Decision was signed in August 2000. The five EWA Agencies (the Department, CDFG, NMFS, USFWS, and Reclamation) all signed the EWA Operating Principles Agreement, giving the program its operational guidance through September 2004. The five agencies signed a MOU extending the EWA through December 31, 2007. The principle underlying the EWA was that the Department and Reclamation would operate the state and federal water projects in response to requests from CDFG, NMFS, and USFWS to provide protections to fish beyond those required in existing regulatory standards to the extent that replacement water would be provided to the projects later in the season at no extra cost to the state and federal water contractors. The EWA, using the best available science at the time, was based on the assumption that the SWP operations, in compliance with environmental regulatory restrictions and with voluntary pumping curtailments compensated by EWA, would not adversely affect special status species and could prevent a further decline of the POD species. See FEIR Subsection 7.2.2.2 for more discussion on the POD.

In 2006, the EWA Agencies were cooperating in developing an EIS/EIR for a long-term extension of the EWA Program. However, due to the decision by Reclamation to pursue reconsultation under the FESA on the OCAP for the CVP and SWP Delta facilities, the agencies decided to suspend work on the long-term EWA EIR/EIS and instead develop a Supplement to the EIS/EIR to facilitate another MOU covering the EWA operations through 2011. That Supplement was completed in early summer 2008. The EWA Operating Principles Agreement were part of the 2000 CALFED Record of Decision and can be found at http://www.calwater.ca.gov/content/Documents/ROD2.pdf; the EIR/EIS (2004) on the EWA and the Supplement (2008) – Clearinghouse # 1996032083 – can be found at http://www.usbr.gov/mp/ewa/documents.html.

In 2007 the EWA Agencies, based on criteria different from those used in previous EWA operational years, used new scientific information to determine when to reduce pumping. SWP and CVP pumps were curtailed by 501,500 AF during the 2007 water year, the largest curtailments made during the seven-year history of the EWA Program.[1]

The Wanger decision on December 14, 2007 placed constraints on the SWP and CVP Delta export pumps in the form of prescribed operational triggers associated with flow parameters, and pumping curtailments that essentially replace most of the voluntary adaptive decisions on pumping curtailments made under the EWA Program. The flow parameters imbedded in the Wanger decision translate into export curtailments when Delta hydrodynamics are likely to draw fish towards the pumps or when fish are detected near the export pumps. These restrictions

1 The EWA Agencies in 2007 repaid the water cost of these curtailments to the SWP and CVP with purchased water and operational assets except for 51,000 AF. In 2008, the SWP was fully repaid; the CVP is still owed 5,400 AF. The EWA currently has a net debt to the projects of 10,200 AF as a result of VAMP costs in 2008.

applied for most of the time from January through June 2008. These restrictions on pumping were similar to those voluntarily implemented during 2007 (as mentioned above). The delta smelt Biological Opinion constraints are similar to the Wanger decision parameters in application and effect on Delta exports.

The EWA Program was intended to use public funding during its initial years to provide the replacement water required to meet the program goal of no uncompensated water cost to the SWP and CVP water users. Substantial public funding was provided in several bond issues; however, most of that funding has been used and the remaining public funding for the continuation of the EWA is very limited.

There is no plan at this time to provide for additional public funding to continue EWA. Since 2008, public funding has been insufficient to provide replacement water to compensate for reductions in Delta pumping to protect Delta fish species as has been the case in prior years. In addition, some of the pumping reductions that were previously part of environmental agreements have become mandatory. Thus the nature of the future EWA Program, if any, is subject to further discussion among the five EWA Agencies.

The Department has executed an agreement with Yuba County Water Agency to implement a portion of the Yuba Accord, providing about 60,000 AF of water per year (effectively 48,000 AF after estimated 20 percent carriage losses in the Delta) to the Department for EWA purposes through 2015.

As part of the project description of the BA submitted to USFWS and NMFS, the Department and Reclamation have defined a “limited EWA” as being part of that project description. Under this definition, the EWA will no longer operate in the same manner as it did from 2000 through 2007. The operation has changed effective in 2008 in response to the declining availability of public funding to acquire water assets and increasing asset needs for fishery protection. The EWA is now a limited EWA that has fewer assets at its disposal and will focus on providing those assets (48,000 AF from the Yuba Accord) to support the VAMP and related actions such as the post-VAMP shoulder.

The EWA incorporated operational assets that were used to repay the water cost of curtailments and thereby supported a portion of the pumping cuts to protect fish. The operational assets increased the water assets available to the EWA. Because the pumping curtailments are now mandatory under the delta smelt Biological Opinion constraints, the operational assets will be used to help recover a portion of the water supply lost to pumping curtailments for fish protection. Those operational assets as granted to the EWA in the CALFED ROD and described in the delta smelt Biological Opinion that are relevant to recovery of a portion of the lost water supply are:

- A 50 percent share of SWP export pumping of (b)(2) water and ERP water from upstream releases;
- Use of 500 cfs increase in authorized Banks Pumping Plant capacity in July through September (from 6,680 to 7,180 cfs).

### 7.2.2.2 Pelagic Organism Decline and the Bay-Delta Estuary

Comments addressed in this subsection include: 6-6, 6-7, 16-12, 17-10, 21-24, 21-29, 21-30, 21-31, 21-32, 21-34, 26-3, 26-7, 30-56, 30-143, 35-4, 36-1, 64-14, 64-16, 64-31, 65-12, and 65-22.

## POD Data and POD Relationship to Proposed Project and DEIR

### *Summary*

This section addresses comments requesting current POD scientific information. It also clarifies that this EIR analyzes potential impacts associated with the proposed project, not the SWP as a whole. Some comments have suggested that the proposed project is responsible for indirect effects associated with POD relating to water quality and habitat; however, the studies cited as support discuss changes in water quality resulting from SWP and CVP operations as a whole. As stated in this Master Response, this EIR does not analyze impacts of the SWP operations; it analyzes impacts related to the Monterey Amendment and the Settlement Agreement; it does not analyze impacts resulting from all SWP operations. Delta ouflow changes resulting from the proposed project's water supply management practices project were minor, occurred over short periods of time, occurred during high Delta outflow periods, and, therefore, could not have caused the impacts suggested by these comments. However, this EIR provides some information and background on some of these issues so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. See FEIR Subsection 4.2.1.3.

The DEIR considered the relationship of the proposed project to POD on pages 7.3-24 to 7.3-27. New information is provided to clarify and amplify information in the DEIR and does not change the conclusions of the DEIR on page 7.3-71 that the proposed project in the future could have an impact on Delta fish species and that these impacts are mitigated. The DEIR recognized that there are multiple stressors currently thought to be responsible for the decline of POD species, including entrainment, food web changes, introduced species, and contamination and more recently, predation that may be responsible for the decline of POD species.

### *Background*

The DEIR recognized the existence of the POD, but the CALFED Bay-Delta program, using the best available science at the time, was based on the assumption that the SWP operations, in compliance with environmental regulatory restrictions and with voluntary pumping curtailments, compensated by EWA, would not adversely affect special status species and could prevent a further decline of the POD species. The DEIR recognized the multiple stressors currently thought to be responsible for the decline of POD species, including entrainment, food web changes, introduced species, contamination, and predation. It also recognized that water project operations were being examined as a potential environmental stressor as part of the POD investigations. See page 7.3-25 of the DEIR.

Even though SWP and CVP operations in the Delta have become more constrained recently by the court and regulatory agencies, the populations of at-risk fish have not rebounded. While it is clear that multiple factors are causing these declines, there is concern that any increased impact or stress could contribute to their further decline. Although the relative contribution of each environmental stressor is currently unclear, it appears that entrainment at the CVP and SWP pumps, especially during peak salvage events, may be important in some years for some species of fish.

Therefore, additional environmental regulatory restrictions have been placed on SWP exports by both courts and regulatory agencies since publication of the DEIR based on their view that the best available science at this time requires minimizing the effects of pumping on fisheries

populations in order to prevent further jeopardy of sensitive fish species and habitat. As a result, it is expected that estimated future exports will decrease and any resulting impacts will be less under the new regulatory restrictions than under the 2003 regulatory scenario described in the DEIR, and therefore no new environmental impact analysis is required. See FEIR Subsection 11.2.4.2 on reduced export pumping.

### *POD Update*

On January 16, 2008 the IEP presented a 2007 synthesis report to the California SWRCB. The IEP is a group of a group of State and federal agencies, as well as university and private scientists, who conduct long-term monitoring and applied research in the San Francisco Estuary. Based on the 2007 synthesis report, the DEIR POD Subsection (7.3.2.4 of the DEIR) has been updated and can now be found in FEIR Subsection 7.2.4.2, Decline of Delta Pelagic Organisms since 2003.

### *POD Discussion in the DEIR*

Some comments state that the SWP and CVP have been a major, if not primary cause of the fisheries decline. Specifically comments state that: (1) there is a correlation between the POD and increases and shifts in Delta exports; (2) that the EIR should include evaluations of indirect effects of exports on fish; and (3) that the DEIR does not accurately disclose the status of scientific understanding regarding the cause of the POD and comments disagree with the Department's use of the word "hypothesis." Comments also state that the DEIR fails to incorporate findings from the POD science team into the impact analysis. The following addresses these concerns.

#### Changes in Delta Exports

The DEIR discussion on POD is based on the POD Science Team studies available at that time and recognized that water project operations were examined as a primary environmental stressor being evaluated as part of POD investigations as discussed on page 7.3-25 of the DEIR. The most recent studies, discussed below in the revision to Subsection 7.3.2.4 of the DEIR can be found in FEIR Subsection 7.2.4.2 Decline of Delta Pelagic Organisms since 2003. This update examines the increases and shifts in water project operations and shows that it is still not clear what is causing the decline in pelagic fisheries. Results of the studies[2,3] show that entrainment at the CVP and SWP pumps may be important in some years for some species of fish.

#### Indirect Impacts

Comments state that the EIR should evaluate impacts such as water quality or habitat modifications caused by the proposed project. These impacts, whether direct or indirect, were discussed in the DEIR. Delta outflow changes resulting from the proposed project's water supply management practices were minor, occurred over short periods of time, and occurred during high Delta outflow periods, and were not considered a substantial change in fish habitat (DEIR Impact 7.3-6, starting on page 7.3-6). Therefore, they could not have caused the kinds of impacts suggested by these comments. As discussed in FEIR Subsection 7.2.2.1.3, to the extent that there are potential direct or indirect impacts of the Monterey Amendment they are

2 Manly, B.J.F., and M.A. Chotkowski. 2006. Two new methods for regime change analysis. Archiv für Hydrobiologie 167: 593-607.

3 Kimmerer, W. J., J. H. Cowan, Jr., L. W. Miller, and K. A. Rose. 2001. Analysis of an estuarine striped bass population: effects of environmental conditions during early life. Estuaries 24: 557- 575.

mitigated by Mitigation Measure 7.3-5. Although not the subject of this EIR, the impacts related to water quality and habitat modification related to water operations as a whole (including both CVP and SWP) are discussed below so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR.

Changes in water quality (such as specific conductance) in the Delta are likely due to the interaction of both climatic variability and anthropogenic factors, including how water is managed. Comment 21-29 cites studies by Feyrer et al.[4] (2007) and Monsen et al.[5] (2007) as support for the assertion that there is mounting evidence indicating that the exports pumps are a major contributing cause to POD. These studies discuss changes in water quality that may be a result of water project operations (both release of water from upstream dams and exports from the south Delta) and may have led to changes in specific conductance. Changes in specific conductance, in addition to the declining quality of other environmental variables such as turbidity, are associated with POD and may have contributed to the further decline of the ecosystem (see FEIR Subsection 7.2.4.2 Decline of Delta Pelagic Organisms since 2003). The results of both studies (Feyrer et al. 2007 and Monsen et al. 2007) can be found in the 2007 POD Synthesis Report and suggest that competition and predation from invasive species are also considered a stressor to POD. These studies discuss changes in water quality that may be a result of water project operations as a whole and not due to the proposed project.

While there is some speculation that overall SWP operations may have indirectly helped to promote invasive species, the minimal Delta flow changes associated with the water supply management practices that occurred over 84 days in a nine-year period from 1996-2004, all during times of high Delta outflow, cannot reasonably be correlated to the propagation of invasive species in the Delta.

For more information on impacts due to water operations in the Delta and how they are being addressed, see the OCAP BA at: http://www.usbr.gov/mp/cvo/ocapBA.html, and the IEP publications website: http://iep.water.ca.gov/AES/aes_publications.htm.

### Disclosure of the status of scientific understanding regarding the cause of the POD

Comment 21-29 disagrees with the use of the word “hypothesis” in the statement in the DEIR on page 7.3-25 and contends that the Department has not accurately disclosed the status of scientific understanding regarding the cause of POD. As stated in the DEIR on page 7.3-25:

> The POD investigations have proceeded under a working hypothesis that the recent declines are a response to a new stressor (or a least a new version of an old stressor). The investigation centers around impacts of water project operations, food web changes, and contaminants (Table 7.3-13).

There is no documented research claiming to have discovered the cause of POD. There are however, multiple stressors (see Table 7.3-13 of the DEIR) and the Department recognizes that entrainment, food web changes, temperature changes, in addition to other human-related factors such as introduced species and contamination may be responsible for the declining

4 Feyrer, F., M. Nobriga, and T. Sommer. 2007. Multi-decadal trends for three declining fish species: habitat patterns and mechanisms in the San Francisco Estuary, California, U.S.A. Canadian Journal of Fisheries and Aquatic Sciences 64:723-734

5 Monsen, N.E., J.E. Cloern, and J.R. Burau. 2007, Effects of flow diversions on water and habitat quality; examples from California's highly manipulated Sacramento-San Joaquin Delta. San Francisco Estuary and Watershed Science 5, Issue 3 (July 2007), Article 2.

abundances of pelagic fishes in the Delta. Furthermore, the mechanism(s) by which these stressors impact fish abundances is not clear. A combination of long-term and recent changes in the ecosystem could have produced the observed POD. Therefore, it is necessary to describe the uncertainty behind the conceptual models aimed at explaining the observed declines as hypotheses, and more accurately as "working hypotheses."

The Department acknowledges that the export pumps are a stressor contributing to POD. However, based on the findings of the most recent POD Synthesis Report (see FEIR Subsection 7.2.4.2 Decline of Delta Pelagic Organisms since 2003) the relative contribution of each environmental stressor is currently unclear.

### Impact Analysis

Comment 30-143 states that the DEIR fails to incorporate findings from the POD science team into the impact analysis. The POD Update (see FEIR Subsection 7.2.4.2 Decline of Delta Pelagic Organisms since 2003) is an update to the POD section found in 7.3.2.4 of the DEIR. On January 16, 2008 the IEP presented a 2007 synthesis report to the California SWRCB. The synthesis report summarizes the most current information regarding POD; however, many of these studies are in progress and have yet to be peer reviewed. Until results are peer reviewed, the POD management team encourages readers to be cautious when evaluating each study's relative value. The most current findings of the 2007 synthesis report are included in FEIR Subsection 7.2.4.2 to respond in part to comments on the DEIR. As new scientific information becomes available and incorporated into the environmental regulation framework, the Department will alter SWP operations as necessary in order to remain in compliance. The impact analysis in FEIR Subsection 7.2.2.1.3 re-evaluated the impacts of the water supply management practices based on current knowledge and confirmed the conclusion of the DEIR that past impacts were not significant and future impacts may be significant but would be mitigated.

### 7.2.2.2.1 Exports

The Department acknowledges that entrainment from potential additional exports is one of several stressors currently being evaluated as contributors to the decline of delta smelt and other Bay-Delta fish populations (i.e. the POD). Additional exports and their impact on Delta fisheries are analyzed in Subsection 7.3.3 of the DEIR (see Impacts 7.3-5 and 7.3-6; pages 7.3-42 to 7.3-77 of the DEIR). From 1996 to 2004, the Monterey Amendment provisions increased Delta exports and reduced Delta outflow by a total of 0.03 percent and 0.35 percent of total Delta outflow during that period and the future respectively. Also see the discussion in FEIR Subsection 7.2.2.1.3 for more information.

### 7.2.2.2.2 Timing of Exported Water

Comments state that many of the provisions of the proposed project, such as the turnback pool and Article 21, would "increase the amount of water exported by the SWP during times of excess conditions in the Delta at a time when delta smelt are vulnerable to project operations. The comments state that the DEIR fails to incorporate the timing factor into the analysis of impacts in the DEIR. The DEIR, however, did incorporate the timing factor into the analysis of impacts and recognized the concerns about winter and spring pumping (see pages 7.3-68 through 7.3-77). As suggested by Comment 30-143, the DEIR analysis includes "explicit studies on the degree to which increased winter demand has been or will be facilitated through storage outside" the service area of a contractor and "the degree to which water pumped in the winter has been and will be stored" outside the service area of a contractor. That analysis did

not show a significant adverse environmental impact as a result of transfers, retirements and altered water allocation procedures. It did show a potential significant environmental impact could result from the water supply management practices in the future. As discussed in Impact 7.3-5 (beginning on page 7.3-42 of the DEIR), the analysis of the water supply management practices showed that they did not result in a significant impact on the environment during the 1996 to 2003 analysis. See FEIR Chapter 14 for more information on Article 21 and Chapter 15 for more information on water supply management practices.

In the future, the water supply management practices were found to have a potentially significant impact on fish because the amount of export pumping would be greater and would likely take place during the months when delta smelt would potentially be subject to SWP entrainment (see page 7.3-69 of the DEIR). Some of that water would be classified upon delivery to contractors as Table A water and some as Article 21 water. As discussed in the DEIR on page 7.3-25 and in FEIR Subsection 7.2.2.1.3, this export pumping was (and would be) within existing operational and regulatory constraints. As stated in the DEIR, "[A]s new scientific data and regulatory environmental issues surface regarding the SWP operation in the Delta, the Department will continue to evolve its SWP operations to ensure environmental compliance and SWP contractor deliveries."

Comment 30-143 also cited to a study by Arve Sjovold that tied changes in Oroville storage and releases, and increases in pumping from the Delta, to changes as a result of the Monterey Amendment. The DEIR confirms that the changes discussed in these studies did occur; however, the changes are a result of changes in overall operation of the SWP that would have occurred even if the Monterey Amendment had not been implemented. They include increases in response to hydrologic conditions, specifically added releases to maintain required flood control space in Lake Oroville, releases to meet year-end storage targets, and releases to move additional wet year water to the Delta to meet standards and provide SWP exports. Much of the period following implementation of the Monterey Amendment was a wetter than normal period, and Lake Oroville was operated consistent with all regulatory conditions and did make greater releases as a result of greater reservoir inflow. Increasing SWP contractor requests for SWP water during that period also influenced the reservoir releases to provide Delta exports. See FEIR Subsection 15.2.3.3 for more discussion on how most increased Delta export pumping since implementation of the Monterey Amendment is due to factors other than the Monterey Amendment. See also Response to Comment 1-1 in FEIR Section 7.1.

The Department recognizes that there are conflicts between water supply and fisheries in the Delta and is actively funding and participating in a number of programs that are set on finding the causes of the decline and best possible solutions for the Delta ecosystem. Recent POD studies have investigated many stressors and their potential impact on the Delta. The most current scientific information regarding POD is included in the update (see FEIR Subsection 7.2.4.2). See also FEIR Subsection 5.2.3.2 for related water policy activities.

### 7.2.3 Responses to Individual Comments

### Response to Comment 6-6

The comment requests that the DEIR clarify which Delta fish species are subject to potentially significant impacts and the source of those impacts. The comment also requests that the DEIR discuss what has changed since the SWRCB's Decision 1485. The potential physical environmental impacts of proposed project implementation are evaluated in Chapter 7 of the DEIR; fisheries impacts are discussed in Section 7.3 of the DEIR and cumulative impacts are addressed in DEIR Section 10.1. Species of Concern (including Delta fish) are listed in DEIR

Subsections 7.3.2.1, 7.3.2.3, and 7.3.2.4. See also FEIR Subsections 7.2.2.1 and 7.2.2.2 for more discussion on the effects of the proposed project on the Bay-Delta estuary, its fish and its ecosystem, and FEIR Section 10.1 of the FEIR for more discussion on cumulative impacts.

As discussed in FEIR Subsection 15.2.1, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta. The Department agrees that water supply management practices facilitated by the Monterey Amendment can result in increased exports from the Delta. The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. This potential future increase is likely to be less than estimated for a variety of reasons.

The Monterey Amendment cannot increase pumping unless the pumping is permitted under appropriate regulatory constraints. The EIR found that some of the water supply management practices could have a small but potentially significant impact on fisheries resources in the Delta. The Department has determined that its commitment to continue to operate the SWP facilities in compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will minimize, avoid and/or reduce potential effects on the Delta aquatic environment from the proposed project now and in the future to a less than significant level. The Department has determined that relying on the requirements of the existing regulatory process is not improper deferral of mitigation. See FEIR Subsection 7.2.2.1.3.

The comment asked for clarification regarding what species the DEIR identified as subject to potentially significant risks from future pumping due to the proposed project and whether the source of potential impacts was just entrainment or whether it included changes in flow pattern and disruptions of movement of species.

Species of Concern are listed in DEIR Subsection 7.3.2.1 (Life Histories of Fish Species of Concern through 2003); 7.3.2.3 Changes in Physical Setting between 1996 and 2003; and 7.3.2.4 Decline of Delta Pelagic Organisms since 2003. The primary species of concern are the state and federal listed species which include Delta smelt, longfin smelt, and various salmonid species including spring run and winter run salmon. Increased salvage at the pumps is one source of information used in the analysis to determine potential significant impacts. Additionally, Old and Middle river flow patterns, Delta outflow, and increases in Banks pumping are analyzed in relation to fisheries impacts (see Tables 7.3-22 through 7.3-34 on pages 7.3-46 to 7.3-66 of the DEIR). FEIR Subsection 7.2.2.1.3 Impact Analysis and Mitigation discusses these issues and clarifies the relationship. See also FEIR Subsection 7.2.2.2. An update of factors, which may directly and indirectly impact aquatic species in the Delta, can be found in FEIR Subsection 7.2.4.

The comment also refers to findings in the SWRCB's 1978 Decision 1485. The SWRCB has issued a later SWRCB Decision 1641, which governs current SWP operations. The DEIR recognizes that the proposed project may result in increases in pumping, which could impact fisheries in the Delta. The Department has and will operate the SWP in compliance with SWRCB Decision 1641 and all State and federal environmental regulations. See FEIR Subsection 7.2.2.1.1 regarding the fact that this EIR does not need to address all of the environmental impacts that may be associated with operation of the SWP or to address all of the Delta's existing problems that existed before the Monterey Amendment. It only needs to

study in detail the adverse impacts generated by the proposed project and mitigation measures and alternatives that address those project-generated impacts. See FEIR Subsection 5.2.1.1.

For clarification on regulatory programs relating to fisheries in the Delta, see FEIR Subsections 7.2.2.1.1 and 7.2.2.1.2. See also Subsection 14.2.2.2 on SWP water rights.

## Response to Comment 6-7

The comment states that the DEIR must specify what species Mitigation Measure 7.3-5 is intended to apply to and what impacts are being reduced to less than significant. The comment also notes that mitigation measures must be fully enforceable and that reliance on programs that are forthcoming is deferral of mitigation. See FEIR Subsections 7.2.2.1.1, 7.2.2.1.2, 7.2.2.2, and 7.2.2.1.3. See also Response to Comment 6-6.

## Response to Comment 6-8

The comment questions the adequacy of Mitigation Measure 7.3-5. As discussed in FEIR Subsection 7.2.2.1.3, responding to regulatory requirements, the Department has modified Measure 7.3-5 for impacts resulting from the water supply management practices to read as follows:

> 7.3-5 *The Department shall ~~implement operational assets that could be deployed through a continuation of the EWA, through an equivalent type of program, or through another project that would replace the EWA and provide the fish protection required by the court and the Biological Opinions on delta smelt and Chinook salmon that would limit any adverse impact resulting from the proposed project on special status Delta fish species as a result of higher pumping at Banks during periods when san Luis Reservoir, absent of the proposed project, would be full.~~ continue to operate the SWP Delta export facilities in compliance with requirements of federal and State agencies in effect at the time of operation to avoid, reduce, or minimize potential impacts on the Delta aquatic environment including water quality, listed species and other aquatic resources caused by SWP pumping attributable to the proposed project.*

See FEIR Subsection 7.2.2.1.3.

## Response to Comment 16-12

The comment states that the DEIR overstates impacts to Delta exports and therefore also overstates Delta fisheries impacts. See FEIR Subsection 7.2.2.1.3 for clarification of the DEIR's analysis of impacts on fisheries. Also, for more information regarding comments and responses to CALSIM, see Analytical Methods including CALSIM II in FEIR Section 6.3, including the responses to Comments 16-8 through 16-12. The comment suggests that the DEIR overstates the impacts of the proposed project on Delta exports and consequently on Delta fisheries. The DEIR indicates that the estimated increase in annual average diversion from the Delta by the SWP of 50,000 AF under 2020 conditions may be overstated and identifies several reasons why this may be the case (see DEIR Chapter 6, page 6-63 and 6-65). However, as described in DEIR Chapter 5 there is no perfect method for making estimates of the effects of the proposed project on Delta diversions. The Department concluded that the estimate of an average increase in future Delta diversions of 50,000 AFY based on an analysis of historical data would constitute the greatest potential impact from exports in the future from the proposed project. Since it was at the high end of the probable range, it would show the greatest potential environmental

impact, which is appropriate for CEQA purposes. The Department agrees that the impacts are most likely overstated and that the combined effects of the Monterey Agreement, increased use of Table A by contractors and increased environmental limitations will reduce Delta exports that could result from the Monterey Amendment and therefore result in less impact. See FEIR Subsections 15.2.2 and 15.2.3 for a discussion of the impacts of the water supply management practices.

The comment agrees with the DEIR conclusion that estimated effects of the water supply management methods on future Delta diversions cannot readily be combined with the CALSIM II results with respect to Delta diversions. However, the comment states that the potentially offsetting effects of other provisions of the proposed project (as analyzed using CALSIM II) and other factors that might reduce diversions should be discussed in the DEIR. The discussion is included in DEIR Chapter 6, pages 6-63 and 6-65. The Department concluded that it was not appropriate to add the values of future Delta diversions derived from historical analysis and CALSIM II simulations because the analytical methods used to obtain the estimates are dissimilar.

See also FEIR Subsections 7.2.2.1.3 and 7.2.2.2 for further clarification and FEIR Section 6.3 on methods, including CALSIM.

### Response to Comment 16-13

The comment suggests that Mitigation Measure 7.3-5 is unclear and makes recommended language changes. See Response to Comment 6-8 and FEIR Subsection 7.2.2.1.3.

### Response to Comment 16-62

The comment states that the SWC agrees with the statement on page 6-64 of the DEIR (last sentence of second to last paragraph) that “Overall, the Monterey Amendment probably had little effect on deliveries between 1996 and 2003” and that this should result in a clear statement that the Monterey Amendment had no impact on Delta fisheries during this time frame. The DIER concludes that the Monterey Amendment had a less than significant impact on Delta fisheries in DEIR Section 7.3 on page 7.3-53. No changes to the DEIR are made as a result of this comment.

### Response to Comment 16-51

The comment requests that the last sentence of the fourth paragraph on page 6-12 of the DEIR be revised to include the phrase “although no findings of jeopardy were made for any of those events.” The last sentence of the fourth paragraph on page 6-12 of the DEIR is revised to read as follows:

> Curtailments of pumping occurred at times in May and June of 1996, 1997, 1999, and 2000, <u>although no findings of jeopardy were made for any of those events.</u>

### Response to Comment 16-52

The comment requests that the third paragraph on page 6-13 of the DEIR be clarified to state that the three fisheries agencies referred to as the “Management Agencies” are the ones who make the allocation decisions, pursuant to the EWA Operating Principles Agreement. The third paragraph on page 6-13 of the DEIR is revised to read as follows:

> The Department and Reclamation are called the Project Agencies; the others (the fishery agencies) are called the Management Agencies. The Management Agencies evaluate the current hydrology, fish monitoring data, and other scientific evidence and recommend changes in Delta export pumping (pumping curtailments) to protect the fish, considering the available EWA assets that can be provided to offset the curtailments. The Project Agencies implement the export curtailments and transfer the replacement water (EWA assets) to the projects later in the year when fish are not at risk near the Delta export pumps. The EWA began operation in late 2000.

### Response to Comment 16-53

The comment requests that the words "for diversions into Clifton Court Forebay" be added to the second sentence of the fourth paragraph on page 6-13 of the DEIR. The second sentence of the fourth paragraph on page 6-13 of the DEIR is revised to read as follows:

> As part of the EWA adaptive management process described above, the SWP is permitted to pump an additional 500 cfs from July 1 to September 30, making the summer limit for diversions into Clifton Court Forebay effectively 7,180 cfs rather than 6,680 cfs.

### Response to Comment 16-82

The comment requests that the work "all" be added to the first sentence of the third paragraph on page 7.3-12 of the DEIR before the words "Central Valley." The first sentence of the third paragraph on page 7.3-12 of the DEIR is revised to read as follows:

> Fall-run – Historically, fall-run Chinook were in all Central Valley streams that had enough water during the fall. …

### Response to Comment 16-83

The comment requests that fourth paragraph on page 7.3-17 of the DEIR be revised to note that the striped bass population in the San Luis Reservoir is non-reproducing. The fourth paragraph on page 7.3-17 of the DEIR is revised to read as follows:

> … The reservoir supports an excellent sport fishery for striped bass. The striped bass population is non-reproducing and is thought to be replenished by the pumping of small bass through the California Aqueduct.

### Response to Comment 16-84

The comment requests that the first paragraph on page 7.3-18 of the DEIR be revised to note that the largemouth bass are non-native and are significant predators on listed and special status fish species. The first paragraph on page 7.3-18 of the DEIR is revised to read as follows:

> … The Delta also supports an important largemouth bass fishery, as well as catfish. Largemouth bass are non-native and are predators on special status fish species.

## Response to Comment 16-85

The comment requests that the third paragraph on page 7.3-24 of the DEIR be revised to state that there is no established relationship between young-of-year populations of striped bass and adult population levels. The third paragraph on page 7.3-24 of the DEIR is revised to read as follows:

> … Together, these indices indicate that the population of young striped bass continued to decline through 2003. <u>It should be noted that there is no established relationship between young-of-year populations of striped bass and adult population levels.</u>

## Response to Comment 16-86

The comment requests that repetitive text in the last paragraph on page 7.3-25 of the DEIR be deleted because it appears in the previous paragraph. The last paragraph on page 7.3-25 of the DEIR is deleted:

> ~~at Banks after record low number of delta smelt. On June 8, 2007, limited pumping resumed to meet critical water needs. Increasingly, fish species in the Delta face stressors that include competition with invasive species, toxicity run-off from surrounding farms, and a shortage of food sources. Additional information is currently being obtained regarding the multiple threats currently faced in the Delta and San Francisco Estuary. The Department continues to follow all legal environmental restrictions regarding the timing and amount of water that is pumped at Banks. As new scientific data and legal environmental issues surface regarding the SWP operation in the Delta, the Department will continue to evolve its SWP operation strategies to ensure environmental compliance and SWP contractor fulfillment. In Fall 2007 a new POD synthesis report will be available that will include all the latest scientific data and information as it pertains to the Delta and the POD.~~

## Response to Comment 16-87

The comment requests that the duplicative discussion of splittail included as the last paragraph starting on page 7.3-27 of the DEIR be deleted because it appears in the previous paragraphs starting on page 7.3-26. The last paragraph on page 7.3-27 of the DEIR is deleted:

> ~~Splittail are a large cyprinid fish species endemic to the San Francisco Estuary and its watershed. Splittail can sexually mature at two years; most splittail seem to live at least five years and ages up to eight have been recorded. Splittail spawn on flooded vegetation, mainly during February through May. Splittail spawning habitat is greatly increased during periods of floodplain inundation in the Sacramento and San Joaquin basins. Consequently, like longfin smelt, splittail populations have fluctuated in response to river flows as indexed by X2. Unlike longfin smelt, the invasion of overbite clam did not affect the X2-abundance relationship for splittail, presumably because the young fish are not dependent on the upper estuary pelagic food web. Young splittail feed on zooplankton, insect larvae, and miscellaneous benthic invertebrates, including overbite clams. Larval splittail typically rear in shallow freshwater habitats; juveniles may migrate into brackish water habitats. Juvenile and adult splittail are physiologically hardy and are very tolerant of estuarine conditions (elevated salinity, low dissolved oxygen, and high water temperatures). Splittail are not readily collected by the CDFG trawling surveys because they are often distributed in very shallow water. However, their annual~~

~~abundance trends have been indexed by the FMWT Survey since 1967. The index has averaged 32 per year, with a maximum index of 281 in 1998.~~

## Response to Comment 16-88

The comment requests that the flow values shown in the top half of Table 7.3-19 under the heading “2020 Monthly Flow Change Due to Changes in Deliveries, AF” on page 7.3-37 of the DEIR be reduced by a factor of 1,000 in order to be correct. Table 7.3-19 on page 7.3-37 of the DEIR is revised to read as follows:

## TABLE 7.3-19

## AVERAGE MONTHLY FLOW CHANGES FOR PROPOSED PROJECT COMPARED TO BASELINE UNDER 2020 CONDITIONS (AF, %)

| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | TOT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2020 Monthly Flow Change Due to Change in Deliveries, AF** | | | | | | | | | | | | |
| **Feather River Region: Butte, Plumas, Yuba City** | | | | | | | | | | | | | |
| Monterey Plus 2020 Monthly Delivery Increase | | | | | | | | | | | | | |
| 22-94 Avg | -20,000 | -0 | -0 | -0 | -0 | -0 | -10,000 | -10,000 | -10,000 | -20,000 | -20,000 | -20,000 | -120,000 |
| 22-94 Wet | -20,000 | -0 | -0 | -0 | -0 | -0 | -20,000 | -20,000 | -20,000 | -20,000 | -20,000 | -30,000 | -170,000 |
| 22-94 AN | -10,000 | -0 | -0 | -0 | -0 | -0 | -10,000 | -10,000 | -10,000 | -10,000 | -10,000 | -10,000 | -70,000 |
| 22-94 BN | -30,000 | -0 | -0 | -0 | -0 | -10,000 | -20,000 | -20,000 | -20,000 | -20,000 | -30,000 | -40,000 | -190,000 |
| 22-94 Dry | -10,000 | -0 | -0 | -0 | -0 | -0 | -10,000 | -10,000 | -10,000 | -10,000 | -10,000 | -10,000 | -70,000 |
| 22-94 Crit | -20,000 | -10,000 | -0 | -0 | -0 | -10,000 | -10,000 | -10,000 | -10,000 | -20,000 | -20,000 | -10,000 | -110,000 |
| **North Bay Region: Feather River Region, Solano, Napa** | | | | | | | | | | | | | |
| Monterey Plus 2020 Monthly Delivery Increase | | | | | | | | | | | | | |
| 22-94 Avg | -700,000 | -590,000 | -600,000 | -330,000 | -370,000 | -460,000 | -600,000 | -660,000 | -680,000 | -700,000 | -700,000 | -680,000 | -7,070,000 |
| 22-94 Wet | -1,090,000 | -920,000 | -960,000 | -680,000 | -740,000 | -840,000 | -1,020,000 | -1,100,000 | -1,130,000 | -1,170,000 | -1,170,000 | -1,130,000 | -11,950,000 |
| 22-94 AN | -800,000 | -670,000 | -660,000 | -400,000 | -540,000 | -710,000 | -900,000 | -970,000 | -990,000 | -1,030,000 | -1,030,000 | -990,000 | -9,690,000 |
| 22-94 BN | -730,000 | -620,000 | -630,000 | -290,000 | -320,000 | -450,000 | -630,000 | -730,000 | -750,000 | -770,000 | -770,000 | -750,000 | -7,450,000 |
| 22-94 Dry | -340,000 | -280,000 | -280,000 | -140,000 | -150,000 | -190,000 | -290,000 | -320,000 | -330,000 | -340,000 | -340,000 | -330,000 | -3,320,000 |
| 22-94 Crit | -150,000 | -120,000 | -130,000 | -40,000 | -40,000 | -50,000 | -60,000 | -70,000 | -70,000 | -70,000 | -70,000 | -70,000 | -920,000 |
| | **2020 Monthly Baseline River Flows, AF** | | | | | | | | | | | | |
| **2020 Feather River Baseline Flows** | | | | | | | | | | | | | |
| 22-94 Avg | 153,000 | 130,000 | 222,000 | 284,000 | 317,000 | 368,000 | 189,000 | 224,000 | 280,000 | 431,000 | 293,000 | 125,000 | 3,015,000 |
| 22-94 Wet | 171,000 | 175,000 | 389,000 | 621,000 | 653,000 | 738,000 | 413,000 | 456,000 | 338,000 | 445,000 | 232,000 | 101,000 | 4,733,000 |
| 22-94 AN | 152,000 | 105,000 | 222,000 | 289,000 | 391,000 | 541,000 | 151,000 | 274,000 | 261,000 | 519,000 | 362,000 | 114,000 | 3,381,000 |
| 22-94 BN | 155,000 | 119,000 | 148,000 | 164,000 | 211,000 | 189,000 | 80,000 | 105,000 | 329,000 | 515,000 | 406,000 | 140,000 | 2,560,000 |
| 22-94 Dry | 142,000 | 103,000 | 138,000 | 93,000 | 90,000 | 133,000 | 94,000 | 101,000 | 257,000 | 420,000 | 314,000 | 143,000 | 2,030,000 |
| 22-94 Crit | 132,000 | 119,000 | 128,000 | 82,000 | 91,000 | 101,000 | 81,000 | 82,000 | 165,000 | 248,000 | 183,000 | 132,000 | 1,545,000 |
| **2020 Sacramento River Baseline Flows** | | | | | | | | | | | | | |
| 22-94 Avg | 754,000 | 924,000 | 1,530,000 | 2,009,000 | 2,186,000 | 2,102,000 | 1,462,000 | 1,180,000 | 1,038,000 | 1,130,000 | 880,000 | 770,000 | 15,965,000 |
| 22-94 Wet | 898,000 | 1,296,000 | 2,824,000 | 3,427,000 | 3,402,000 | 3,226,000 | 2,531,000 | 1,992,000 | 1,406,000 | 1,246,000 | 950,000 | 1,003,000 | 24,201,000 |
| 22-94 AN | 726,000 | 958,000 | 1,356,000 | 2,730,000 | 2,940,000 | 3,104,000 | 1,746,000 | 1,362,000 | 1,086,000 | 1,301,000 | 980,000 | 798,000 | 19,086,000 |
| 22-94 BN | 720,000 | 798,000 | 1,098,000 | 1,520,000 | 1,969,000 | 1,611,000 | 1,112,000 | 948,000 | 1,049,000 | 1,213,000 | 969,000 | 741,000 | 13,749,000 |
| 22-94 Dry | 686,000 | 774,000 | 927,000 | 978,000 | 1,295,000 | 1,383,000 | 830,000 | 734,000 | 827,000 | 1,077,000 | 838,000 | 688,000 | 11,039,000 |
| 22-94 Crit | 657,000 | 592,000 | 716,000 | 875,000 | 872,000 | 829,000 | 606,000 | 470,000 | 623,000 | 758,000 | 626,000 | 480,000 | 8,103,000 |

## Response to Comment 16-89

The comment requests that the statement about decreases in flow on the Sacramento River in the third paragraph on page 7.3-40 of the DEIR be clarified by adding reference to the flows being downstream of the Feather River. The first sentence of the third paragraph on page 7.3-40 of the DEIR is revised to read as follows:

> At most, the proposed project under 2003 conditions may result in minor decreases in Sacramento River flow downstream of the Feather River as compared to the baseline scenario. …

## Response to Comment 16-90

The comment requests that the second sentence of the fifth paragraph on page 7.3-40 of the DEIR be revised to reflect the correct flow value in AF and not TAF. See Response to Comment 16-88. The second sentence of the fifth paragraph on page 7.3-40 of the DEIR is revised to read as follows:

> The maximum monthly delivery increases would be up to about 1,170 ~~TAF (11,700,000 AF)~~ in June through September of wet years as shown in Table 7.3-19. …

## Response to Comment 16-91

The comment requests that the fourth paragraph on page 7.3-53 of the DEIR be clarified to state that the EWA Management Agencies do not just "recommend" pumping changes; that they make decisions regarding use of EWA assets that are carried out by the Project Agencies. The fourth paragraph on page 7.3-53 of the DEIR is revised to read as follows:

> … The EWA program relies on continuous monitoring of fish distribution and density in the Delta, combined with assessment of the risk to the fish from Delta export pumping, to identify periods when pumping changes can best benefit fish. See pages 6-12 to 6-14 for a description of the EWA program. ~~When there are fish species of concern present near the pumps, the Management Agencies recommended make decisions regarding use of EWA assets that are carried out by the Project Agencies that. pumping at Banks Pumping Plant and/or Jones Pumping Plant can be curtailed to lower pumping rates to protect fish by reducing salvage at the pumps or to control in-Delta channel flows to avoid attracting fish (especially delta smelt) toward the pumps.~~

## Response to Comment 16-92

The comment requests that the use of the word "aided" in the third sentence of the first paragraph on page 7.3-67 of the DEIR be clarified. The third sentence of the first paragraph on page 7.3-67 of the DEIR is revised to read as follows:

> Based on the fact that the water supply management practices would have sustained similar pumping patterns to those that occurred prior to the impact period, the water supply management practices would have possibly contributed to an increase ~~aided~~ in the salvage numbers.

## Response to Comment 17-10

The comment states that the DEIR inadequately examines the project's effects on POD and that SWP and CVP operations have been a major, if not the primary cause of POD. See the discussions in FEIR Subsections 7.2.2.1.1 through 7.2.2.1.4, and 7.2.2.2. See also FEIR Subsection 5.2.1.1 regarding the fact that this EIR is on the Monterey Amendment, not on the SWP; Subsection 6.2.2 on changed conditions; Subsections 5.2.1.2, 14.2.1, and 14.2.2 on the fact that any exports under the Monterey Amendment are subject to regulatory restrictions; Subsection 15.2.2 and 15.2.3.3 regarding the potential for increased exports and deliveries from the Monterey Amendment, especially Subsection 15.2.3.3; and FEIR Subsection 11.2.4.2 on reduced exports as an alternative. See also FEIR Subsection 7.2.4 which updates the salmon and discussion in the DEIR.

## Response to Comment 20-9

The comment states that they would like to incorporate by reference the "Declaration of John Leahigh in Support of the California Department of Water Resources Proposed Interim Remedy." The numbers stated in the comment are selected from Mr. Leahigh's testimony about the water costs to the SWP of complying with the alternative remedies proposed to Judge Wanger at the August 21, 2007 hearing in *NRDC v. Kempthorne* (Wanger hearing). The alternate remedies involve substantially reducing pumping at certain times of the year below the rates allowable under SWRCB Decision 1641. The costs cited by Mr. Leahigh are those necessary in addition to compliance with SWRCB Decision 1641 to also comply with the added delta smelt remedies that were proposed by plaintiffs and the Department. The baseline for comparison is full compliance with SWRCB Decision 1641. The Leahigh declaration is included in this FEIR as Appendix E Part 1.

The amount of water that the SWP can pump from the Delta is limited by the need to comply with environmental standards that are designed to protect water quality and the Delta's biological resources, including those established by the SWRCB and state and federal ESA laws. As discussed in FEIR Subsections 6.2.2.2 and 7.2.2.1.3, regulatory restrictions as well as hydrologic conditions are part of the environment in which the proposed project operates. Operation of the SWP complies with the standards in SWRCB Decision 1641. To the extent that regulatory restrictions (such as those imposed by the Wanger Decision or the new Biological Opinions) reduce the amount of water that can be exported, the less effective the water supply management practices will be in improving reliability and flexibility of SWP water supplies in conjunction with local supplies. The DEIR, therefore, presents information regarding environmental impacts under the situation where the greatest impacts would occur. To the extent that hydrologic and regulatory restrictions reduce the amount of water that can be exported, the smaller the impacts identified in the DEIR would be.

## Response to Comment 21-24

The comment states that the DEIR does not make reference to the Wanger decision with respect to the Delta smelt. Although issuance of the DEIR preceded issuance of the December 2007 order imposing interim operational constraints conditions on Delta pumping, the DEIR makes reference to the July 2007 order of Judge Wanger which found the Biological Opinion to be invalid but did not vacate the opinion and states that the court will impose a court-order remedy (see DEIR page 7.3-70). As noted in FEIR Subsection 6.3.2.3, more stringent environmental standards and limitations on pumping would reduce the environmental effects of the proposed project as described in the DEIR because San Luis Reservoir would fill less often

and there would be fewer opportunities to pump surplus water. The most recent limitations on SWP operations are discussed in the FEIR Subsections 7.2.2.1.1, 7.2.2.1.3, and 7.2.2.2.

The comment also makes reference to a declaration of John Leahigh. See the Response to Comment 20-9.

## Response to Comment 21-26

The comment requests that the DEIR should more clearly explain what the EWA is and how it operations, including an explanation that the EWA causes increased pumping at Banks.

### Current EWA Plans

The Department has committed 48,000 AF of the Yuba Accord water and SWP project water to the (VAMP; for more information on VAMP see page 7.1-33 in the DEIR) and associated actions as part of the resources to provide fish protection as part of the OCAP BA and the delta smelt Biological Opinion. See discussion on EWA at FEIR Subsection 7.2.2.1.5. The Department may continue to use EWA assets to help recover water supplies lost as a result of new regulatory restrictions. However, the new Biological Opinions impose constraints that reduce export pumping substantially in excess of the value of these assets. Therefore, while EWA-type programs may be in place, the Department is no longer relying on the EWA to mitigate for fisheries impacts in the future. See FEIR Subsection 7.2.1.1.3.

There is no plan at this time to provide for additional public funding to continue EWA. Beginning in 2008, public funding will be insufficient to provide replacement water to compensate for reductions in Delta pumping to protect Delta fish species as has been the case in prior years. In addition, some of the pumping reductions that were previously part of environmental agreements have become mandatory. Thus the nature of the future EWA Program, if any, is subject to further discussion among the five EWA Agencies.

### Operation of the EWA

This comment raises several issues with regard to operation of the EWA. The impacts of the EWA are not due to the Monterey Amendment and were covered in environmental documents on the EWA. The following background and information on the EWA is included in this FEIR so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. To the extent that these issues are related to potential physical changes in the environment, they have already been included in the EIR. See FEIR Subsection 4.2.1.3.

The DEIR discusses the operation of the EWA Program in Chapters 6 and 7. To clarify, the EWA has been operated consistent with the EWA Operating Principles Agreement, which is part of the CALFED Record of Decision, located at http://www.calwater.ca.gov/content/Documents/ROD2.pdf. Descriptions of the EWA are located in the DEIR on pages 6-12 to 6-14; 7.1-18; 7.1-34; 7.1-61; and in DEIR Appendix M. Additional information on the EWA can be found in the EIR/EIS on the EWA and the supplemental EIR/EIS on the EWA, located at http://www.usbr.gov/mp/ewa/documents.html. The size of the EWA (the amount of water assets to be obtained annually) was developed in 2000 several years after the Monterey Amendment had been incorporated into SWP operations. Thus the Monterey Amendment was included in the original sizing of the EWA Program, including the impacts of acquiring more water than was actually acquired (up to 600,000 AF annually). See Response to Comment 30-145.

The EWA Agencies stored water in San Luis Reservoir to return to the SWP or CVP to compensate for pumping curtailments. In practice, EWA seldom stored water for long in San Luis Reservoir because of the risk that water would be displaced by project water when the reservoirs filled, usually in the spring of most years. Although one purpose of the EWA was to augment streamflows and Delta outflows, the major focus of the program was reducing pumping at the Delta export facilities to benefit the at-risk Delta fish species by reducing the loss of fish at the pumps. The EWA Agencies purchased water both upstream of the Delta and within the export service area. The balance between the sources was closely related to hydrology and capacity at the Delta pumps during the summer transfer period when the fish are much less likely to be affected by Delta export pumping.

Water levels in the Delta do not change materially due to inflow, and using EWA assets just to augment Delta inflow without also supporting cuts in export pumping would not have had as many benefits as providing the releases in a fish-friendly pattern that also allows export of the water to support the winter and spring pumping curtailments to reduce loss of fish at the pumps.

In years with relatively wet hydrology, the EWA Program was limited in how much water it could export at Banks to compensate for pumping curtailments. The EWA program had the use of about 500 cfs of capacity at Banks from July 1 through September 30 (a practical capacity that would move an average of about 60,000 AF of EWA water in that period). To offset the higher CVP and SWP water cost of pumping curtailments at the federal and state export pumps (123,000 – 502,000 AFY), the EWA Agencies purchased water from the export service area south of the Delta as well. That water would be transferred from the seller to the EWA Agencies at O'Neill Forebay, adjacent to San Luis Reservoir.

Under the EWA, the Department met its obligations to maintain Delta water quality standards and comply with ESA obligations in conjunction with the CVP as part of its normal operations, including making required releases from Oroville Reservoir. The Department retained sufficient storage in Oroville Reservoir to meet its ESA obligations in the event it was needed to make additional releases under the applicable Biological Opinions to protect fish. As discussed above the concept behind the EWA was to curtail Delta export pumping at strategic times and then provide replacement transfer supplies on a fish-friendly flow schedule. DEIR Subsection 6.2.3 beginning on page 6-4 provides a detailed discussion of how the Department allocates water to its contractors while reserving sufficient storage to meet its environmental obligations. See FEIR Subsection 7.2.2.1 for a discussion of environmental compliance. See also discussion of SWP operations in FEIR Chapter 14 Article 21.

## Effect on the Delta of EWA

The comment states that the EWA causes increased Delta exports. This statement is not correct. The operation of the EWA resulted in less pumping in the Delta on a full year basis in most years. Pumping was curtailed for fish during the December-June period, and some added pumping occurred during the summer months when few at-risk fish are near the pumps. Some of the pumping curtailments were also repaid with groundwater extracted from groundwater banks in the export service area. To the extent that this water would make up for December-June pumping curtailments, less water is exported from the Delta within the full year.

The comment also notes that the description of filling of San Luis Reservoir is vague. The description in the DEIR on pages 6-12 to 6-14 states that the Department will continue to pump from the Delta at the permitted rate until the SWP share of San Luis Reservoir is completely full. Once the reservoir is full, all demands are being met, and there is no place to store or deliver any added water from Delta exports, the pumping is cut back to just meet demands. If the EWA

owed water to the SWP or CVP, the Department would have operated the Delta pumps to meet contractor demands and, to the extent pumping capacity is available, fill that space in San Luis Reservoir and thus extinguish the EWA debt in the reservoir.

To the extent that sales of water banked in Kern County to the EWA Program stimulated added water banking in Kern County in subsequent years to replenish the groundwater bank balances, there could be added requests for SWP water. In those circumstances, if Delta capacity is available in the wetter years when surface supplies to Kern County exceed demand and SWP allocations are sufficiently high (generally greater than 70 percent), there could have been added SWP Delta exports to supply KCWA with water to replenish groundwater banks if those banks would otherwise have been full absent the EWA sales. Because the EWA sales and subsequent replacement banking occur within the KCWA service area, the water supply management practices of the proposed project are not relevant, and this impact is not an impact of the proposed project. However, the added requests for water for banking, if any, would offset to some degree the decreased Delta exports supported by the EWA Program. See FEIR Subsections 16.2.5 and 16.2.7 regarding the fact that use of the KWB by local entities does not increase exports from the Delta and Subsection 16.2.11 on the KWB and water marketing.

Unrelated to the EWA, the impacts of added Delta exports as a result of the proposed project are fully addressed in the DEIR analyses of the increased pumping that could occur as a result of the water supply management practices (see pages 7.3-54 through 7.3-73). See FEIR Chapter 15 for more information on the effect of the water supply management practices on deliveries.

## Response to Comment 21-27

The comment states that the DEIR improperly classifies the impact of increasing EWA costs as an economic not an environmental impact. The DEIR concluded that there was no impact on the EWA by the proposed project for the period 1996 to 2003 and that the potential increase in up to 10 percent EWA debt caused by the proposed project for the future was an economic not a physical environmental impact and therefore no significance conclusions were drawn (see DEIR pages 7.1-61 to 7.1-62). The comment disagrees with the conclusion and states that that the EWA has been underfunded and therefore it has limited the willingness of responsible agencies to fully implement recommended fish protection actions. The comment states that the past performance of the EWA and the environmental impacts that have resulted from under funding the program must be considered in subsequent drafts.

This EIR is on the Monterey Amendment and Settlement Agreement, not on the EWA and therefore only the impacts of the Monterey Amendment need to be considered in this EIR. The nature of the EWA for the future is extremely limited.

For past events, the DEIR concluded that the Monterey Amendment had no impact on the EWA during the period 1996 to 2003 as it is not possible to discern whether any different decisions on use of EWA water would have been made absent implementation of the Monterey Amendments. For the future, the DEIR concluded that the Monterey Amendment could increase the water cost of EWA by about 10 percent in about one of every three years, based on a review of the 1996 to 2004 period as described in DEIR Appendix M. This impact would be approximately 26,000 AF in the affected years, compared to historical EWA pumping curtailments averaging 250,000 AFY. However, this analysis was prepared in 2007 while the EWA was in full operation. This impact will not occur as defined in the DEIR because the EWA Program will no longer function as it did from 2001 to 2007. The pumping curtailments

mandated by new Biological Opinions will incorporate sufficient export reductions to protect fish and replace all but limited EWA operations related to VAMP.

See FEIR 7.2.2.1.3 and 7.2.2.1.5. See also Response to Comment 21-26.

### Response to Comment 21-29

The comment states that the DEIR should disclose that project operations are believed to be a significant contributor to POD. See FEIR Subsections 7.2.2.2 and 7.2.4.2 for a discussion of POD update to EIR.

### Response to Comment 21-30

The comment states that the EIR include the most up-to-date information on POD. See also FEIR Subsections 7.2.2.1.4, 7.2.2.2, and 7.2.4.2.

### Response to Comment 21-31

The comment states that the EIR should explain why the document considers project-related contributions to certain salvage events to be negligible. See FEIR Subsections 7.2.2.1.3, 7.2.2.1.4, and 7.2.2.2.

### Response to Comment 21-32

The comment states that the DEIR did not evaluate the indirect impacts exports have on fish. See the discussion of direct and indirect export impacts on fisheries in the Delta in FEIR Subsections 7.2.2.1.3, 7.2.2.2, and 7.2.4.2.

### Response to Comment 21-33

The comment states that the EIR should more closely evaluate project impacts on salmonids passing through the Delta. The Department acknowledges that on page 7.3-52 the DEIR stated the project could “disrupt movement of species of fish, and increase entrainment losses of adult delta smelt and salmonid smolts.” However, the paragraph continues and explains that this impact will be based upon the magnitude of changes in Delta outflow and the relative reduction due to increased pumping.

The EIR is not intended to evaluate the total operations of the SWP. Rather, the EIR evaluates the changes in pumping that occur as a result of the proposed project and alternatives. Thus it only evaluates the proposed project’s impacts on the Delta relative to baseline conditions. Impact 7.1-1 of the DEIR analyzes the change in outflow from the Delta as a result of the proposed project. Table 7.1-13 (page 7.1-37 of the DEIR) displays the estimated effects of the Monterey Amendment on Delta outflow during periods when pumping was increased due to the proposed project. At most, the percent change of Delta outflow was reported as 0.80 percent (2004). The other differences ranged from 0.02 to 0.18 percent.

For further information on pumping changes and its impact on Delta fisheries, see Impacts 7.3-5 and 7.3-6; and pages 7.3-42 to 7.3-77 of the DEIR. From 1996 to 2003, the Monterey Amendment provisions increased Delta exports and reduced Delta outflow by 0.03 percent of total Delta outflow during that period. Future effects of the Monterey Amendment provisions on outflow would also be small, with reductions expected to represent about 0.35 percent of Delta outflow. Also see FEIR Subsections 7.2.2.1.3 and 7.2.4.1.

## Response to Comment 21-34

The comment states that the DEIR's conclusion that environmental programs in place from 1996 through 2003 were sufficient to render project impacts less than significant is unsupportable. Please see FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3. Based on information known at the time the DEIR was published, and based on the detailed analysis of the added export pumping attributable to the proposed project (a cumulative total of 44,000 AF over nine years from 1996 to 2004), it was concluded that there was no significant adverse impact for that time period. It was also believed that the regulatory constraints in place were sufficient to protect the at-risk fish species of the Delta.

The DEIR recognizes (pages 7.3-69 thorough 7.3-73) in its analysis of potential future impacts of the proposed project that there could be significant adverse impacts in the future. The DEIR also recognizes that there were problems that were noticed after 2000 that existing regulatory mechanisms did not appear to be solving. From 2000 through 2007, the Department and the federal and State fishery agencies relied upon the EWA and other programs to provide the required fish protection. New requirements by the court and new Biological Opinions on delta smelt and Chinook salmon and an Incidental Take Permit on long-fin smelt reflect new knowledge and impose more stringent constraints on Delta exports to provide added protection to for special-status Delta fish as a result of potential higher pumping at Banks, including during periods when San Luis Reservoir, absent the proposed project, would be full.

The conclusion in the DEIR that increased Delta exports resulting from the proposed project in the 1996 to 2003 period evaluated in the EIR were less than significant was reviewed and confirmed in FEIR Subsection 7.2.2.1.3. The Department has determined that its commitment to continue to operate the SWP facilities in compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will minimize, avoid and/or reduce potential effects on the Delta aquatic environment from the proposed project now and in the future to a less than significant level. The Department has determined that relying on the requirements of the existing regulatory process is not improper deferral of mitigation. See also FEIR Subsections 7.2.2.1.2, 7.2.2.1.3, and 7.2.2.2.

## Response to Comment 21-35

The comment states that it is improper for the DEIR to rely so heavily on existing and planned programs designed to comply with ESA requirements. See FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3.

## Response to Comment 21-36

The comment states that the proposed mitigation measure of implementing an EWA-type program is insufficient. See Response to Comment 6-8 and FEIR Subsection 7.2.2.1.3.

## Response to Comment 22-21

The comment states that the DEIR's discussion of the EWA does not assist the reader understand how the EWA is supposed to work. The comment also questions whether water sold south of the Delta results in a profit. See FEIR Subsections 7.2.2.1.3 and 7.2.2.1.5 and Response to Comment 21-26. See also Response to Comment 30-43.

## Response to Comment 22-30

The comment asks what are prudent conditions in drier years for the health of the Delta. See FEIR Subsections 7.2.2.1.1, 7.2.2.1.3, and 7.2.2.2.

## Response to Comment 26-3

The comment raises the concern that adoption of the proposed project will perpetuate the already alarming decline of endangered fish species in the Delta. See FEIR Subsections 7.2.2.1.1, 7.2.2.1.2, 7.2.2.1.3, 7.2.2.1.4, and 7.2.2.2. See also FEIR Subsections 17.2.6.1 and 17.2.6.2 for a summary of these issues.

## Response to Comment 26-5

The comment states that the DEIR violates CEQA because it relies on mitigation measures that will be created and evaluated in the future. See FEIR Subsection 7.2.2.1.1 and 7.2.2.1.3. In *Vineyard,* the court said that City of Rancho Cordova could not rely on a not yet completed comprehensive analysis on water supply to support a long term development plan. In the case of SWP compliance with regulatory standards, the DEIR and this FEIR recognize that SWP operations are currently in compliance with existing standards; that there are significant impacts that can occur from the proposed project; that the primary constraints at this time are imposed through Biological Opinions and an Incidental Take Permit; that regulatory agencies have considered additional new standards; and that the SWP will operate in compliance with whatever standards will be developed. Unlike the case in *Vineyard* where a development once built, cannot be undone or revised, proposed project related SWP operations are subject to continuous review by the SWRCB and endangered species regulatory agencies and operations can (and have been) regulated on daily basis.

## Response to Comment 26-7

The comment states that the DEIR effectively ignores the effect of the proposed project on the location of X2, the 2,000 mg/L isohaline. The Department does not agree. Section 7.1 of the DEIR contains an analysis of the proposed project's effect on X2 (pages 7.1-42 through 7.1-45).

The proposed project would only affect the position of X2 if it caused a change in flow in the Delta. The effects of the proposed project on Delta inflow and outflow are analyzed in the DEIR and summarized on pages 7.1-38 and 7.1-40. The retirements and transfers of Table A amounts and the altered allocation procedures that are a part of the proposed project would have very little effect on Delta inflow and outflow and so would have very little effect on the position of X2 as shown in Tables 7.1-14 and 7.1-17. Analysis of historical data indicated that some of the water supply management practices that are part of the proposed project reduced Delta outflow between 1996 and 2004. However, the effects on Delta outflow were small, the reductions were never greater than 2.9 percent of outflow on a daily basis, and occurred only in parts of six months of the 108-month period. In the historical analysis, Delta outflow was reduced an estimated 0.03 percent during the period from 1996 to 2003. Future effects of the water supply management procedures would also be small, with reductions expected to represent about 0.35 percent of average annual Delta outflow. The reductions in flow in the Delta attributable to the proposed project are too small to have a measurable effect on X2 particularly as the reductions would only occur in wet months of wet years when X2 is typically at its seasonally most downstream location.

The effect of implementation of the proposed project on special-status fish species in the Sacramento-San Joaquin Delta due to Delta outflow changes is discussed in Impacts 7.3-6 and 10.1-1 in the Section 7.3 and 10.1, respectively, in the DEIR. These impact analyses include a discussion of movement of the X2 position which similarly support the determination that the changes caused by the proposed project are less than significant. See also FEIR Subsection 7.2.2.1.3 and 7.2.2.2.

Although the changes in the position of X2 attributable to the proposed project are too small to represent a significant impact on water quality, the proposed project's implementation of the water supply management practices could result in increased pumping and was determined to have a potentially significant impact on Delta fisheries (DEIR Impact 7.3-5, pages 7.3-42 through 7.3-73). The DEIR also concluded in Impact 10.1-2 (pages 10.1-22 through 10.1-26) that the proposed project could increase pumping in the Sacramento-San Joaquin Delta and could have a significant cumulative impact on the decline of special-status fish species. The increase in cumulative pumping could change Delta flow patterns, disrupt movement of species of fish, and increase entrainment losses of adult smelt and salmon smolts. See FEIR Subsection 7.2.2.1.3 for a discussion of these impacts and mitigation that reduces the impacts to a level that is less than significant.

## Response to Comment 30-43

The comment states that the DEIR failed to analyze key environmental consequences of the KWB's operation without statewide trust accountability. The comment states that "the effective possession of the Kern Water Bank enabled Paramount Farming subsidiary Westside Mutual and other interests within the KWBA to secure surplus water from the state, only to sell it back to the state's Environmental Water Account at a profit." It is assumed for purposes of this comment that the term "surplus water" refers to Article 21 water. The comment also raises several issues regarding operation of the KWB Lands that are not related to the EWA.

This comment raises several other issues with regard to operation of the EWA. The impacts of the EWA are not due to the Monterey Amendment and were covered in the environmental documents on EWA. The following background and information on the EWA is included in this FEIR so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. To the extent that these issues are related to potential physical changes in the environment, they have already been included in the EIR. See FEIR Subsection 4.2.1.3. See FEIR Subsections 7.2.2.1.3 and 7.2.2.1.5 and Response to Comment 21-26 on the current plans for EWA, operation of the EWA and impacts on the Delta of EWA.

### Selling Water to the EWA

See FEIR Subsection 16.2.11 on KWB Lands and Water Marketing. Water stored in the KWB Lands has been recovered by the KWBA participants either for their own direct use or for sale to others. From 1995 through 2005 (years including or following dry years), recovery for participants totaled 138,224 AF. During the same period, water sales totaled 423,320 AF. Three quarters of this amount was sold to the EWA. The remainder went to agricultural entities within the San Joaquin Valley, a wildlife refuge, a power plant located within Kern County, and four percent made available to adjoining water districts. KWB Lands water operations are described in DEIR Appendix E, pages 26-37.

Water transferred out of the KWB has been primarily for EWA purposes. Agencies in the export service area that sold water to the EWA include the Kern County Water Agency, a number of the Agency's member units, and Santa Clara Valley Water District. These agencies had previously banked some of their allocated SWP water in groundwater. FEIR Table 7.2-1 provides the details of EWA transactions from 2001 through 2007. The delivery arrangements to EWA sometimes involve exchanges of current Table A or, rarely, Article 21 supplies, for banked groundwater.

The EWA Agencies were required to purchase water from willing sellers, and expected the selling agencies to price the water in a way that would recover the expenses and losses associated with the banking and withdrawal of the water plus a profit. While these sellers of water benefited from the EWA water, the EWA Agencies faced a limited market of willing sellers, especially in the export service area. Surface reservoir supplies are not available from the export service area, leaving established groundwater banks as the primary available source. Because of limitations in cross-Delta transfer capacity in most years, purchases from the Kern area groundwater banks made sense from the EWA buyer's perspective because there were no carriage losses or other risks from moving water through the Delta. Purchase efforts were made so that the benefits of the EWA water were shared among all SWP contractors and CVP Delta export contractors in proportion to EWA pumping curtailments, knowing that EWA funds were limited.

The EWA Agencies purchased water from a number of KCWA's member agencies in 2001, following complex negotiations with multiple parties. From 2002 to 2005, and again in 2007, the EWA Agencies purchased water from KCWA and allowed KCWA to enter into its own subsequent negotiations with its member agencies. Thus the EWA Agencies did not engage in the negotiations that determined the sharing of the responsibilities and benefits of the EWA transactions at the local level within Kern County.

Similarly, the Department did not examine how KCWA and its member agencies used the proceeds of the EWA sales, what reliance they placed on the revenues, or what infrastructure improvements were funded by the proceeds within Kern County. The Department made sure that the EWA received the water that the EWA Agencies had purchased, and that the water was used as prescribed within the EWA Program.

## Operation of the KWB by the Department for EWA purposes

This comment also raises a number of comments with regard to operation of the KWB.

The comment argues that, if the Department operated the bank, the Department could pump surplus project water to the bank and then at times of environmental need could pump that water to users in lieu of Delta exports. By paying less for water, the Department could slow the depletion of EWA assets, which in turn would allow the EWA to take more protective actions. In response, the EWA Program was not allowed to purchase water directly from the Department, as that would have reduced supplies available to the 29 SWP contractors pursuant to their long-term water supply contracts. Such an arrangement is contrary to the program operating principles in that it would have reduced exports to the SWP contractors without compensation. The arrangement suggested in the comment would have earmarked banked SWP water for the EWA, not the contractors that would have funded the development of the bank and paid for the banking of SWP water.

Had there been a Department-operated KWB, the banked water would have been held as "surplus" or Article 21 water. It would have been unallocated SWP supply, reserved for

extraction and subsequent allocation to SWP contractors as Table A water in the drier years when Delta supplies would be diminished by the hydrology. Extraction and sale of such unallocated SWP water supplies to the EWA would have reduced supplies available for the SWP contractors in dry years, would therefore have been viewed as an injury to the contractors, and would have been unlikely to have been permitted to be withdrawn and used as EWA water by the Department under terms of the EWA Operating Principles Agreement.

See also Response to Comment 30-43 in FEIR Chapter 16.

## Response to Comment 30-56

The comment states that the DEIR fails to disclose impacts to the Bay-Delta Estuary. See FEIR Subsection 7.2.2.1.3, 7.2.2.1.4, and 7.2.2.2, especially the discussion in Subsection 7.2.2.2.2 of timing of exported water. See FEIR Subsection 17.2.6.1 and 17.2.6.2 for a summary of Delta fishery issues.

## Response to Comment 30-84

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-84 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments related to a description of SWP history and states that the EIR must analyze the range of legal and environmental constraints, other than the contracts and hydrologic conditions that could impact water deliveries to SWP contractors and the environmental impacts of these deliveries. It lists as examples Delta water quality standards, endangered species requirements, the SWP's coordination operations agreement with the CVP competing water rights and elements of the CALFED and states that these constraints should be studied both as they existed before any element of Monterey were implemented and as they have evolved since that time.

Each Section of Chapter 7 Environmental Analysis includes a discussion of the physical and regulatory setting in 1995 and 2003. The examples listed in the comment are discussed in Section 7.1 Surface Water Hydrology, Water Quality, and Water Supply and in Section 7.3 Fisheries Resources. FEIR Subsection 7.2.2.1.1 provides an update of physical and regulatory constraints since the publication of the DEIR.

## Response to Comment 30-127

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-127 is a comment on an interim

## FEIR TABLE 7.2-1

## SUMMARY OF EWA'S ACTUAL WATER PURCHASES (2001 - 2007)

| Seller | 2001 | | 2002 | | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Water Purchased (AF) | Cost | Water Purchased (AF) | Cost | Water Purchased (AF) | Cost | Water Purchased (AF) | Cost | Water Purchased (AF) | Cost | Water Purchased (AF) | Cost | Water Purchased (AF) | Cost | Water Purchased (AF) | Cost |
| **Upstream of the Delta** | | | | | | | | | | | | | | | | |
| Butte Water District | 0 | $0 | 0 | $0 | 0 | $84,070[1] | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $84,070[1] |
| Merced Irrigation District | 25,000 | $1,875,000 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 25,000 | $3,750,000 | 50,000 | $5,625,000 |
| South Feather Water & Power Agency (Formerly Oroville-Wyandotte Irrigation District) | 10,000 | $750,000 | 0 | $0 | 4,914 | $368,550 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 14,914 | $1,118,550 |
| Placer County Water Agency | 20,000 | $1,500,000 | 0 | $0 | 0 | $0 | 18,700 | $1,552,100 | 0 | $0 | 0 | $0 | 0 | $0 | 38,700 | $3,052,100 |
| Sacramento Groundwater Authority | 0 | $0 | 7,143 | $535,725 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 7,143 | $535,695 |
| Yuba County Water Agency | 50,000 | $5,000,000 | 135,000 | $10,125,000 | 65,000 | $5,525,000 | 100,000 | $8,800,000 | 6,044 | $483,496 | 62,000[4] | $4,340,000 | 63,000[5] | $4,410,000 | 481,044 | $38,683,496 |
| ***Sub-total*** | *105,000* | *$9,125,000* | *142,143* | *$10,660,725* | *69,914* | *$5,977,620* | *118,700* | *$10,352,100* | *6,044* | *$483,496* | *62,000* | *$4,340,000* | *88,000* | *$8,160,000* | *591,801* | *$48,098,911* |
| ***Average Cost/AF*** | | $87 | | $75 | | $84 | | $87 | | $80 | | $70 | | $93 | | $83 |
| **Export Service Area (South of the Delta)** | | | | | | | | | | | | | | | | |
| Arvin Edison Water District | 10,000 | $1,380,000 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 10,000 | $1,380,000 |
| Buena Vista Water Service District, West Kern Water District, Rosedale-Rio Bravo Water Storage District | 23,718 | $6,641,040 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 23,718 | $6,641,040 |
| Cawelo Water District | 5,000 | $1,800,000 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 5,000 | $1,800,000 |
| Kern County Water Agency | 20,000 | $7,400,000 | 97,400 | $17,672,730 | 125,000 | $21,250,000 | 35,000 | $8,610,000[2] | 89,712 | $15,845,280 | 0 | $0 | 125,000 | $25,000,000 | 492,112 | $95,778,090[2] |
| Rosedale-Rio Bravo Water Storage District | 19,036 | $2,626,968 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 19,036 | $2,626,968 |
| Santa Clara Valley Water District | 30,000 | $8,700,000 | 0 | $0 | 20,000 | $3,240,000 | 0 | $0 | 8,804 | $1,620,000 | 0 | $0 | 0 | $0 | 58,804 | $13,560,000 |
| Semitropic Water Storage District, Tulare Irrigation District | 15,000 | $4,500,000 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 15,000 | $4,500,000 |
| Westside Mutual Water District | 15,000 | $2,070,000 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 15,000 | $2,070,000 |
| Dudley Ridge Water District, Westside Mutual Water District, Tejon-Castec Water District | 21,000 | $5,880,000 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 21,000 | $5,880,000 |
| ***Sub-total*** | *158,754* | *$40,998,008* | *97,400* | *$17,672,730* | *145,000* | *$24,490,000* | *35,000* | *$8,610,000* | *98,516* | *$17,465,280* | *0* | *$0* | *125,000* | *$25,000,000* | *659,670* | *$134,236,018* |
| ***Average Cost/AF*** | | $258 | | $181 | | $169 | | $190 | | $177 | | | | $200 | | $201 |
| *Total by Year* | 263,754 | $50,123,008 | 239,543 | $28,333,455 | 214,914 | $30,467,620 | 153,700 | $18,962,100 | 104,560 | $17,948,776 | 62,000 | $4,340,000 | 213,000 | $33,160,000 | 1,251,471 | $183,334,929 |
| *Average Total Cost/AF* | | $190 | | $118 | | $142 | | $123 | | $172 | | $70 | | $156 | | $145 |
| **Source Shift** | | | | | | | | | | | | | | | | |
| Metropolitan Water District of Southern California | 50,000 | $4,250,000 | 0 | $1,000,000 | 0 | $500,000 | 0 | $500,000.00 | 0 | $0 | 0 | $0[3] | 0 | $0[3] | 50,000 | $6,250,000 |
| **Exchanges** | | | | | | | | | | | | | | | | |
| Metropolitan Water District of Southern California | 0 | $0 | 0 | $0 | 0 | $0 | 0 | $0 | 50,000 | $4,250,000 | 0 | $0 | 0 | $0 | 50,000 | $4,250,000 |
| **Grand Total** | **313,754** | **$54,373,008** | **239,543** | **$29,333,455** | **214,914** | **$30,967,620** | **153,700** | **$19,462,100** | **154,560** | **$22,198,776** | **62,000** | **$4,340,000** | **213,000** | **$33,160,000** | **1,351,471** | **$193,834,929** |

Notes:
1. Cost includes Additional Option Fee of $84,070 for water not called for in 2003 and that is included in cost sub-total, but not in the Average Cost/AF.
2. Cost includes Additional Option Fee of $1,960,000 for water not called for in 2004 and that is included in the cost sub-total, but not in the Average Cost/AF.
3. A Source Shift Agreement was in place in 2006 and 2007 providing up to 100,000 AF of source shifting services, but no request for source shifting was made for EWA purposes, and no option fees were paid.
4. Although 62,000 AF was purchased in 2006, none of the water could be delivered by YCWA because of excess conditions in the Delta. The water was delivered in 2007.
5. In 2007, 60,000 AF was purchased from YCWA, and all except 8,400 AF was delivered to EWA in 2007. An additional 3,000 AF was requested from YCWA as well. A total of 11,400 AF of water released by YCWA is in storage in Oroville Reservoir as of June 2008, and is expected to be delivered in summer 2008. If the additional 3,000 AF is delivered, the 2007 purchase total will be increased to 63,000 AF and the cost increased to $4,410,000.

Source: DWR, State Water Project Analysis Office, unpublished data, 2009.

document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments that the DEIR analysis must take into account the interaction between Paramount, KWB, its storage partners, and water marketing opportunities such as those provided by the EWA. See FEIR Subsections 7.2.2.1.3 and 7.2.2.1.5. See also Response to Comment 30-43 and Response to Comment 30-43 in FEIR Chapter 16.

## Response to Comment 30-143

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-143 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments stating that new information including POD and winter pumping impacts have not been incorporated into the EIR analysis. See the discussion in FEIR Subsection 7.2.2.2 especially Subsection 7.2.2.2.2 on the timing of exported water. See also FEIR Subsections 15.2.2 and 15.2.3, especially Subsection 15.2.2.3 on how most increased pumping since implementation of the Monterey Amendment is due to other factors. The comment references two attachments by Mr. Sjovold, titled Supplemental Information on SWP Pumping Regimes in the Delta, 1996-2004, September 18, 2004 and Additional Data on Oroville Storage 1996-2004, October 8, 2006. These attachments were not included with the comment letter.

See also FEIR Subsection 7.2.4 updating the salmon and POD discussion in the DEIR. See also Response to Comment 30-134 in FEIR Chapter 15.

## Response to Comment 30-145

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-145 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments stating that the DEIR must disclose the impacts and costs to EWA. The size of the EWA (the amount of water assets to be obtained annually) was developed in 2000 several years after the Monterey Amendment had been incorporated into SWP operations. Thus the Monterey Amendment had no distinguishable independent effect on the size of the EWA. Some parties have argued that the EWA was not provided with sufficient assets to achieve its intended purpose. It is not possible to discern whether any different decisions on use of EWA water would have been

made absent implementation of the Monterey Amendments. See Response to Comment 21-26 for more information on the current status of the EWA, EWA operations and impact on the Delta. See also FEIR Subsection 7.2.2.1.5.

## Response to Comment 30-149

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-149 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented a summary of significant events relating to water quality in 1994 according to Bulletin 132-95. See the discussions in FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3 on the effect of the endangered species laws on the SWP and the proposed project. Impacts of alternatives are discussed on pages 11-31 to 11-33 of the DEIR which points out that the increased pumping associated with the water supply management practices would not occur under several of the no-project alternatives and Alternative 5. Operation of the SWP under any alternative must be in compliance with federal and state endangered species laws and the applicable Biological Opinions, which are designed to protect and promote the recovery of listed species. See also FEIR Subsection 11.2.4.2 for a discussion of why an alternative to reduce Delta pumping exports was rejected. See also FEIR Subsection 7.2.2.1.2 in response to comments on a no-project alternative.

## Response to Comment 31-5

The comment states that the EIR will not comply with CEQA until it performs a proper analysis of the long term shortage alternative. See the discussions in FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3 on the effect of the endangered species laws on the SWP and the proposed project. Impacts of alternatives are discussed on pages 11-31 to 11-33 of the DEIR which points out that the increased pumping associated with the water supply management practices would not occur under several of the no-project alternatives and Alternative 5. Operation of the SWP under any alternative must be in compliance with federal and state endangered species laws and the applicable Biological Opinions, which are designed to protect and promote the recovery of listed species. See also FEIR Subsection 11.2.4.2 for a discussion of why an alternative to reduce Delta pumping exports was rejected. For a discussion on an analysis of Article 18(b) or the "long-term shortage alternative" see Response to Comment 31-5 in FEIR Chapter 9.

## Response to Comment 35-4

The comment states that changed pumping regimes in the Delta have caused serious impacts to endangered fish species as identified in the DEIR. See FEIR Subsections 7.2.2.1.3 and 7.2.2.2 for a discussion of POD and the Bay-Delta estuary, especially 7.2.2.2.1. See FEIR Subsections 17.2.6.1 and 17.2.6.2 for a summary of Delta Fishery issues.

## Response to Comment 36-1

The comment suggests that the change in pumping regimes promulgated by the proposed project and proceeding without a certified EIR allowed extensive increased pumping at a time that would affect smelt migration and that this occurred without the benefit of mitigation measures. See FEIR Subsections 7.2.2.1.3 and 7.2.2.2 for a discussion of POD and the Bay-Delta estuary. See Response to Comment 6-8 for revisions to proposed fisheries mitigation. See also FEIR Subsections 17.2.4.1, 17.2.6.1, and 17.2.6.2 for a summary of Delta fisheries issues.

## Response to Comment 36-13

The comment states that the DEIR does not make reference to the Wanger decision with respect to the Delta smelt. Although issuance of the DEIR preceded issuance of the December 2007 order imposing interim operational constraints conditions on Delta pumping, the DEIR makes reference to the July 2007 order of Judge Wanger which found the Biological Opinion to be invalid but did not vacate the opinion and states that the court will impose a court-order remedy (see DEIR page 7.3-70). As noted in FEIR Subsection 6.3.2.3 more stringent environmental standards and limitations on pumping would reduce the environmental effects of the proposed project as described in the DEIR because San Luis Reservoir would fill less often and there would be fewer opportunities to pump surplus water. The most recent limitations on SWP operations are discussed in the FEIR Subsections 7.2.2.1.1, 7.2.2.1.3, and 7.2.2.2. See also Subsection 6.2.2 on changing conditions.

The comment also makes reference to a declaration of John Leahigh. See the Response to Comment 20-9.

## Response to Comment 36-14

The comment states that the DEIR failed to respond to the requirements of the Wanger decision in alternatives analysis or to recognize that significant decision. See Response to Comment 36-13. Regardless of what alternative the SWP is operating under the SWP must operate in compliance with all permits, regulatory constraints, and environmental standards, including those established by the court. The result of more stringent environmental standards will be increased outflow and reduced exports to SWP contractors during all year types, and especially during wet years. The reduced exports would affect all alternatives addressed in the EIR. See also Response to Comment 36-14 in FEIR Chapter 11. See also FEIR Subsection 7.2.2.1.2.

## Response to Comment 36-15

The comment requests an update to both the delta smelt recovery tables and salvage numbers found in Section 7.3 of the DEIR. For updates to the recovery index, see the update to Table 7.3-14 in Subsection 7.2.4 of the FEIR. The salvage numbers used in Section 7.3 of the DEIR were included in the discussion to describe any changes in salvage that may have occurred in association with increased pumping induced by the Monterey Amendments. As stated on page 7.3-45 of the DEIR:

> There are a couple of purposes for including salvage numbers one week prior and after events due to induced pumping under 2003 conditions of the proposed project. One purpose is for numerical comparison and the second purpose is due to the behavior of delta smelt and splittail. When an increase in pumping occurs that may influence fish movement, it may take up to an estimated three to seven days for the cohorts of delta

smelt and splittail to reach the salvage facilities (Skinner Delta Fish Protective Facility and Tracy Fish Collection Facility) near the pumps.

Therefore, the salvage numbers included were used to determine the impact of specific pumping increase events that had taken place through 2004.

The comment states that 400,000 AF of water was placed in storage in the KWB in the interim period from 1996 to 2003, and that the water previously supported aquatic life. With the exception of water stored by Dudley Ridge, all SWP water delivered to the KWB Lands was by KWB participants located within Kern County and could have been delivered to KCWA if the Monterey Amendment's transfer of the KFE property had not happened. See FEIR Subsection 16.2.7.

The comment indicates that if the EWA is to be mitigation for the proposed project its inadequacy and insufficient funding need to be disclosed. The EWA is no longer proposed as mitigation. See FEIR Subsections 7.2.2.1.3 and 7.2.2.1.5.

To the extent that this comment deals with issues regarding the Public Trust Doctrine, and Water Rights, see the Response to Comment 36-15 in Chapter 14 of the FEIR.

## Response to Comment 36-16

The comment states that the DEIR must address the affect on temperature changes as a result of changes in reservoir management required to support the proposed project and the associated impact to pelagic fish species. The management of reservoirs operated as part of the SWP that could potentially be impacted by the proposed project is analyzed in Impact 7.1-4 in DEIR Section 7.1 Surface Water Hydrology, Water Quality, and Water Supply on page 7.1-45. Reservoirs, whether owned and operated by the State, federal, or other governing bodies, follow legal constraints and permit conditions regarding the timing and quantity of releases. Reservoirs such as Lake Oroville, Shasta Lake, and Keswick Reservoir, adhere to certain water temperature regulations regarding the water released downstream. If there were alterations to reservoir operations resulting from the proposed project, releases from these reservoirs still must follow the same rules and regulations.

Table 7.1-15 on page 7.1-45 of the DEIR shows the potential water releases from Lake Oroville based on water year type for the proposed project as compared to the baseline. This table demonstrates that releases to the Feather River are unlikely to be altered by the proposed project in any water year type. As discussed on page 7.1-51 of the DEIR, "Average annual storage in Lake Oroville with the Table A transfers and retirements and the altered water allocation procedures under 2020 conditions would be about 7,000 AF greater than under the baseline scenario (an increase of about 0.3 percent)."

## Response to Comment 64-14

The comment states that the DEIR discussion of the setting in the Delta is inadequate. For a discussion of the analysis of the proposed project's in relation to POD see FEIR Subsection 7.2.2.2. See also FEIR Subsection 7.2.4.2 for an update on POD and Subsection 7.2.2.1.1 for a discussion of the Wanger decision and other recent regulatory changes. See FEIR Subsection 7.2.2.1.3 for a discussion of impacts and mitigation. See also FEIR Subsections 17.2.4.1, 17.2.4.2, 17.2.6.1, 17.2.6.2, and 17.6.4.

## Response to Comment 64-16

The comment requests that the EIR include some analysis of what role the proposed project plays in the destruction of the pelagic fishery in the Delta. Please see Response to Comment 64-14. See also Subsection 7.2.2.2.2 on timing of exported water in relationship to POD. See also FEIR Subsection 14.2.4 on changes in availability of Article 21 water as a result of the Monterey Amendment.

## Response to Comment 64-18

This comment contends that mitigation using the EWA and a later Biological Opinion are illegal and that mitigation cannot be deferred. See FEIR Subsection 7.2.2.1.3 on impacts and mitigation. See also FEIIR Subsections 7.2.2.1.1 and 7.2.2.1.2.

## Response to Comment 64-21

The comment expresses concern about the EWA and its effect on groundwater levels and the availability of groundwater to support overlying agricultural operations in the upstream of Delta area. While EWA is not the subject of this EIR, the Department is providing this information for clarification purposes. The EWA program can implement groundwater substitution transfers from willing sellers to obtain water supplies. The EIR/EIS covering the EWA operations provides for monitoring and mitigation to prevent adverse impacts on groundwater resources from occurring, or to cease pumping and reverse such impacts before they can become significant, should declines in groundwater levels begin to affect existing wells in the areas of potential influence of the groundwater pumping.

However, given limited EWA resources, as described in Subsection 7.2.2.1.5 of the master response in this chapter, it appears highly unlikely that the EWA Program would be implementing any groundwater substitution transfers that would have the potential to cause any impacts to agricultural irrigation in Butte and Tehama Counties. It should also be mentioned that the EWA has never purchased any water through crop idling, and has not endangered orchards or other crops in the Sacramento Valley. EWA purchases have been primarily from reservoir storage releases (Yuba and Placer Counties), banked groundwater from the Kern County region, and a small amount of groundwater substitution from Merced Irrigation District, Yuba County Water Agency, and Sacramento Groundwater Authority.

See also Response to Comment 64-21 in FEIR Section 7.1.

## Response to Comment 64-31

The comment states that the EIR should state that the proposed project caused some art of the decline of pelagic fish in the Delta. See FEIR Subsections 7.2.2.2 and 7.2.4.2 on POD. This update examines the increases and shifts in water project operations and shows that it is still not clear what is causing the decline in pelagic fisheries. Results of the studies[6,7] show that entrainment at the CVP and SWP pumps may be important in some years for some species of fish. See also FEIR Subsection 7.2.2.1.3.

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6 Manly, B.J.F., and M.A. Chotkowski. 2006. Two new methods for regime change analysis. Archiv für Hydrobiologie 167: 593-607.

7 Kimmerer, W. J., J. H. Cowan, Jr., L. W. Miller, and K. A. Rose. 2001. Analysis of an estuarine striped bass population: effects of environmental conditions during early life. Estuaries 24: 557-575.

## Response to Comment 64-32

The comment states that the EWA did not work. While EWA is not the subject of this EIR, the Department is providing this information for clarification purposes. See FEIR Subsection 7.2.1.1.5. The comment questions the success of the EWA Program. The success of the EWA remains a matter for debate. The program did begin promptly, was implemented as envisioned with considerable flexibility, and did acquire and apply a significant quantity of assets from 2001-2007. Until the causes of the pelagic organism decline in the Delta are determined, and the role of export pumping in that decline can be better estimated, there is no way to provide a definitive answer to the question of whether EWA was successful, or if other actions are necessary to protect the fish in the Delta.

The comment also criticizes the use of the EWA as mitigation and suggests that at least 1 million AF of water has been enabled by the Monterey Amendment. The only change resulting from the Monterey Amendment that has the potential to cause increased exports and adverse impacts on Delta fisheries is the implementation of the water supply management practices. The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

The EIR found that some of the water supply management practices could have a small but potentially significant impact on fisheries resources in the Delta. The Department has determined that its commitment to continue to operate the SWP facilities in compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will minimize, avoid and/or reduce potential effects on the Delta aquatic environment from the proposed project now and in the future to a less than significant level. The Department has determined that relying on the requirements of the existing regulatory process is not improper deferral of mitigation. See FEIR Subsection 7.2.2.1.3.

## Response to Comment 65-5

The comment discusses the Wanger decision and points out that the modeling in the DEIR does not reflect the recent biological opinions and other lawsuits that might affect the operation of the SWP and that this may have adverse effects on urban areas during drought periods. See FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3. See also Response to Comment 65-5 in FEIR Chapter 13.

## Response to Comment 65-12

The comment expresses concern that the proposed project would promote water management practices that would continue to harm the environment, in particular the Delta. See FEIR Subsections 7.2.2.1.1 for current regulatory actions; 7.2.2.1.3 for impacts and mitigation; and 7.2.2.2 on POD. For a summary of these issues see FEIR Subsections 17.2.4.1, 17.2.6.1, and 17.2.6.2. See also Response to Comment 65-12 in FEIR Chapter 15.

### Response to Comment 65-22

The comment states an opinion that the proposed project has had a tremendously negative impact on Delta resources, including fisheries. See FEIR Subsections 7.2.2.1.1 for current regulatory actions, including the most recent biological opinions; 7.2.2.1.3 for impacts and mitigation; and 7.2.2.2 on POD, including timing issues of surplus water. For a summary of these issues see FEIR Subsections 17.2.4.1, 17.2.6.1, and 17.2.6.2. See also Response to Comment 65-22 in FEIR Chapter 13 on Article 18 and reliability of SWP water deliveries and Chapter 14 on Article 21 water.

### Response to Comment 66-5

The comment states that they would like to incorporate by reference the "Declaration of John Leahigh in Support of the California Department of Water Resources Proposed Interim Remedy." See Response to Comment 20-9.

### Response to Comment 67-4

The comment notes that the EWA was envisioned as a program to help improve conditions not necessarily related to the proposed project, but just generally attributable to the operation of the CVP and SWP. The Department agrees. As noted in Response to Comment 130-145, the size of the EWA (the amount of water assets to be obtained annually) was developed in 2000, several years after the proposed project had been incorporated into SWP operations. Thus the proposed project was incorporated into the size of the EWA. It is not possible to discern whether any different decisions on use of EWA water would have been made absent implementation of the Monterey Amendment. See the Response to Comment 21-26 for more information on the current status of the EWA, EWA operations and impact on the Delta.

The comment notes that the impacts of Monterey are less than other influences, such as the reduction in Colorado River deliveries to southern California (see discussion in Response to Comment 1-1 in FEIR Chapter 7.1). The Department agrees. See the Response to Comment 67-4 in FEIR Chapter 15. See also FEIR Subsection 7.2.2.1.5.

## 7.2.4 Updates to DEIR Section 7.3 Fisheries

Corrections and updates initiated by staff have been made to DEIR Subsections 7.3.2.1 and 7.3.2.4 as shown below. These changes do not change any significance findings or mitigation measures found in the DEIR.

### 7.2.4.1 Salmon (Update to Subsection 7.3.2.1 of the DEIR)

The DEIR lists life histories and spawner populations for the following Chinook salmon individual runs: winter-, spring-, late-fall, and fall-run (see 7.3.2.1 Life Histories of Fish Species of Concern through 2003). Current data show that several runs (winter-run, spring-run, and fall-run) continue to decline or are at critically low population levels since writing the DEIR (see Tables 7.3-2 and 7.3-3).

## TABLE 7.3-2

## CHINOOK SALMON SPAWNERS POPULATIONS IN SELECTED SACRAMENTO RIVER TRIBUTARIES

| | Yuba River | Battle Creek | | Big Chico | Butte Creek | | Clear Creek | | Mill creek | | Feather River*2 | | American River*2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Fall Run | Fall Run | Late Fall Run | Spring Run | Fall Run | Spring Run | Fall Run | Spring Run | Fall Run | Spring Run | Fall Run | Spring Run | Fall Run |
| 1985 | 13,042 | 39,808 | 181 | 0 | 100 | 254 | 700 | N/D | 3,840 | 121 | 56,002 | 1,632 | 65,213 |
| 1986 | 19,328 | 31,252 | 197 | N/D | N/D | 1,371 | N/D | N/D | 574 | 291 | 55,471 | 1,433 | 55,067 |
| 1987 | 18,518 | 24,249 | 349 | N/D | N/D | 14 | N/D | N/D | 282 | 90 | 77,846 | 1,213 | 46,143 |
| 1988 | 9,000 | 67,475 | 53 | N/D | N/D | 1,290 | 4,453 | N/D | 1,487 | 572 | 49,036 | 6,833 | 33,514 |
| 1989 | 7,622 | 31,048 | 65 | N/D | N/D | 1,300 | 2,153 | N/D | 1,565 | 563 | 48,119 | 5,078 | 28,924 |
| 1990 | N/D | 21,088 | 92 | 0 | N/D | 250 | 1,011 | N/D | N/D | 844 | 6,126 | 1,893 | 10,239 |
| 1991 | 14,008 | 17,241 | 161 | N/D | N/D | N/D | 2,026 | N/D | N/D | 319 | 42,062 | 4,303 | 25,211 |
| 1992 | 6,362 | 12,708 | 344 | 0 | N/D | 730 | 600 | N/D | 999 | 237 | 40,545 | 1,497 | 11,267 |
| 1993 | 6,703 | 18,616 | 528 | 38 | N/D | 650 | 1,246 | 1 | 1,975 | 61 | 42,914 | 4,672 | 39,410 |
| 1994 | 10,890 | 43,265 | 598 | 2 | N/D | 474 | 2,546 | 0 | 1,081 | 723 | 53,584 | 3,641 | 40,087 |
| 1995 | 14,237 | 83,192 | 323 | 200 | 445 | 7,500 | 9,298 | 2 | N/D | 320 | 72,061 | 5,414 | 86,828 |
| 1996 | 27,900 | 73,587 | 1,337 | 2 | 500 | 1,413 | 5,922 | N/D | N/D | 253 | 65,277 | 6,381 | 82,396 |
| 1997 | 25,948 | 101,414 | 4,578 | 2 | 800 | 635 | 8,569 | N/D | 478 | 200 | 65,675 | 3,653 | 57,845 |
| 1998 | 31,090 | 98,308 | 3,079 | 369 | 500 | 20,259 | 4,259 | 47 | 546 | 424 | 18,889 | 6,746 | 66,580 |
| 1999 | 24,230 | 119,899 | 7,075 | 27 | N/D | 3,679 | 8,003 | N/D | N/D | 560 | 12,927 | 3,731 | 65,099 |
| 2000 | 14,955 | 75,106 | 4,194 | 27 | 714 | 4,118 | 6,687 | 19 | N/D | 544 | 132,863 | 3,657 | 110,219 |
| 2001 | 23,392 | 125,686 | 3,327 | 39 | N/D | 9,605 | 10,865 | N/D | N/D | 1,104 | 203,515 | 4,135 | 147,134 |
| 2002 | 24,051 | 463,296 | 2,669 | N/D | 3,415 | 8,785 | 16,071 | 66 | 2,611 | 1,594 | 125,670 | 4,189 | 134,069 |
| 2003 | 28,316 | 153,045 | 2,797 | 81 | 3,310 | 4,398 | 9,475 | 25 | 2,426 | 1,426 | 104,922 | 8,662 | 178,629 |
| 2004 | 14390 | 92,090 | 5,098 | 0 | 2,456 | 7,390 | 6,365 | 98 | 1,192 | 998 | 72,921 | 4,202 | 122,630~~513~~ |
| 2005 | 15048 | 165,259 | 6,435 | 37 | 4,255 | 10,625 | 14,824 | 69 | 2,426 | 1,150 | 69,704 | 1,835 | 8~~7~~5,028~~349~~ |
| [2006] | 8,127 ~~N/D~~ | 77,510 ~~N/D~~ | 5,111 ~~N/D~~ | 299 | 1920 ~~N/D~~ | 4579 | 8,422 ~~N/D~~ | 77 | 1,403 ~~N/D~~ | 1,002 | 93,281 ~~N/D~~ | 1,952 ~~0~~ | 29,728 ~~N/D~~ |
| [2007] | 2,559 | 21,682 | 3,553 | N/D | 1225 | 4,943 | 4,129 | 194 | 796 | 920 | 27,125 | 2,752 | 13,616 |

Notes:
**DATA FOR [YEARS IN BRACKETS] ARE PRELIMINARY.**
*1 Includes Salmon from the mainstem population that were trapped at Keswick Dam and transported to Coleman National Fish Hatchery (CNFH).
*2 Includes Salmon that are wild spawners as well as hatchery spawned fish.
N/D = No Data.
Source: GrandTab, CDFG, Fisheries Branch, 2006.

**TABLE 7.3-3**

**SACRAMENTO RIVER AT RED BLUFF DIVERSION DAM**
**CHINOOK SALMON SPAWNER POPULATIONS**

| Year | Fall Run*1 | Late Fall Run*1 | Winter Run | Spring Run |
|---|---|---|---|---|
| 1960 | 218,940 | N/D | N/D | N/D |
| 1961 | 140,181 | N/D | N/D | N/D |
| 1962 | 127,837 | N/D | N/D | N/D |
| 1963 | 138,881 | N/D | N/D | N/D |
| 1964 | 142,584 | N/D | N/D | N/D |
| 1965 | 101,876 | N/D | N/D | N/D |
| 1966 | 111,881 | N/D | N/D | N/D |
| 1967 | 82,490 | N/D | N/D | N/D |
| 1968 | 98,429 | N/D | N/D | N/D |
| 1969 | 115,652 | N/D | N/D | 20,000 |
| 1970 | 65,142 | N/D | 40,409 | 3,652 |
| 1971 | 53,888 | 16,741 | 53,089 | 5,830 |
| 1972 | 33,958 | 31,559 | 35,929 | 7,038 |
| 1973 | 41,129 | 21,781 | 22,651 | 7,175 |
| 1974 | 47,019 | 6,083 | 18,536 | 3,800 |
| 1975 | 53,129 | 19,261 | 22,579 | 10,234 |
| 1976 | 45,753 | 15,908 | 33,029 | 25,095 |
| 1977 | 16,176 | 9,210 | 16,470 | 11,545 |
| 1978 | 32,235 | 12,479 | 24,735 | 5,669 |
| 1979 | 47,758 | 10,284 | 2,339 | 2,856 |
| 1980 | 21,961 | 9,093 | 1,142 | 9,363 |
| 1981 | 29,212 | 6,571 | 19,795 | 20,655 |
| 1982 | 17,966 | 3,981 | 1,233 | 23,156 |
| 1983 | 26,226 | 14,984 | 1,827 | 3,854 |
| 1984 | 36,965 | 6,540 | 2,662 | 7,823 |
| 1985 | 52,120 | 8,136 | 3,686 | 10,200 |
| 1986 | 68,821 | 7,820 | 2,566 | 15,948 |
| 1987 | 76,562 | 16,222 | 2,068 | 10,911 |
| 1988 | 63,998 | 12,507 | 2,129 | 9,601 |
| 1989 | 48,968 | 12,807 | 635 | 5,131 |
| 1990 | 32,109 | 6,892 | 384 | 3,896 |
| 1991 | 20,523 | 6,611 | 177 | 766 |
| 1992 | 23,914 | 9,356 | 1,159 | 371 |
| 1993 | 33,471 | 739 | 369 | 391 |
| 1994 | 44,729 | 291 | 144 | 862 |
| 1995 | 53,385 | 166 | 1,159 | 349 |
| 1996 | 71,725 | 48 | 1,012 | 378 |
| 1997 | 98,765 | N/D | 836 | 126 |
| 1998 | 5,718 | 38,239 | 2,831 | 1,115 |
| 1999 | 133,365 | 8,683 | 3,264 | N/D |
| 2000 | 87,793 | 8,632 | 1,263 | 71 |
| 2001 | 57,792 | 18,351 | 8,085 | 711 |
| 2002 | 45,523 | 36,004 | 7,348 | 273 |
| 2003 | 66,476 | 5,346 | 8,105 | N/D |
| 2004 | 34,050 | 8,824 | 7,784 | 395 |
| [2005] | 44,950 | 9,570~~65~~ | 15,730 | N/D |
| [2006] | 46,568 | 14,168 | 17,153 | N/D |
| [2007] | 14,097 | 15303 | 2,488 | 248 |

Notes:
*1 Includes Salmon from the mainstem population that were trapped at Keswick Dam and transported to Coleman National Fish Hatchery.
N/D = No Data. ;
**DATA FOR [YEARS IN BRACKETS] ARE PRELIMINARY.**
Source: GrandTab, CDFG, Fisheries Branch, 2006.

### Winter-run:

As stated in the DEIR, winter-run salmon population from 1997 to 2005 increased (underlined text indicates updates based on current estimates):

> This fish was relatively abundant prior to the construction of Keswick Dam, Lake Shasta, and the Red Bluff Diversion Dam (RBDD) on the upper Sacramento River. Adult population estimates have been made annually since 1970 at the RBDD (Table 7.3-3). Since 1970, winter-run numbers were on a general decline up to 1997. Winter-run population estimate in 1994 hit an all time low of 144 fish. From 1997 up to 2005, winter-run numbers at the RBDD have been increasing. The population of returning adults in 2005 was 15,730. Following 2005 the population estimates continued to rise, reaching 17,153 in 2006. The 2007 winter-run estimates are down to 2,541, and preliminary 2008 estimates are 2,850.

### Spring-run:

The Central Valley spring-run Chinook salmon population has displayed fluctuations in adult abundance between 1967 and 2007. Sacramento River tributary populations in Mill, Deer, and Butte creeks are the best trend indicators for the Central Valley spring run Chinook as a whole because these streams contain the primary independent populations within the ESU (evolutionarily significant unit). The DEIR reported spring-run salmon population estimates for each of the aforementioned creeks (double underlined text indicates updates based on current estimates):

> Population estimates for spring-run Chinook in Mill Creek range from a low of 61 in 1993, to a high of 3,500 in 1975. Compared to the 1990s, spring-run numbers in Mill Creek from 2000 to 2005 have been greater. Current population estimates for spring-run salmon at Mill Creek show a slight decrease from 1,002 in 2006 to 920 in 2007. Feather River and Butte Creek have shown a similar trend of increasing spring-run numbers since 1995 as compared to years prior to 1995. The Feather River supports the spring-run Chinook population with spawning both in the river and at the Feather River hatchery. Since 2005, the Feather River estimates have shown a slight increase from 1,835 in 2005 to 1,952 and 2,752 in 2006 and 2007 respectively. Butte Creek estimates increased in 2005 to 10, 625 (from 7,390 in 2004), but has since decreased to 4,579 and 4,949 in 2006 and 2007 respectively. Cottonwood Creek, Big Chico Creek, Battle Creek, and Clear Creek also have runs of spring-run Chinook, but are fewer in numbers. Spring-run numbers in the Sacramento River at the RBDD have diminished in the 1990s and the early part of the 2000's when compared to the numbers in the 1970s and 1980s. Estimates for 2007 spring-run numbers in the Sacramento River at the RBDD, while still preliminary, indicate that the population continues to remain at low levels. The San Joaquin River population of spring-run Chinook was extirpated by the construction of Friant Dam in 1948 which blocked access to upstream spawning habitat. For spring-run Chinook salmon numbers relevant to this EIR, see Tables 7.3-2 and 7.3-3.

### Late fall-run:

The DEIR reported late fall-run salmon population estimates for Chinook at the RBDD and Battle Creek (underlined text indicates updates based on current estimates):

> Since 1971, the greatest number of late fall-run Chinook at the RBDD occurred in 1998 at 38,239 fish, the lowest occurred in 1996 at 48 fish. The late fall-run Chinook salmon numbers at the RBDD during the early part of the 2000s are comparable to the 1990s, 1980s, and 1970s. Estimates from the latter part of the 2000's continue to be comparable to estimates from earlier decades. Battle Creek also supports a late fall-run. Numbers of late fall-run Chinook salmon in Battle Creek have trended upward since 1995, reaching its second highest count in 2005 at 6,453. The estimate then declined to 5,111 and 3,553 in 2006 and 2007 respectively. It is likely that the San Joaquin River also once supported a late fall-run, but it is now believed extirpated.[8] For late fall-run Chinook salmon numbers relevant to this EIR, see Tables 7.3-2 and 7.3-3.

**Fall-run:**

The DEIR reported fall-run salmon population estimates for the San Joaquin and Sacramento Rivers (underlined text indicates updates based on current estimates):

> In the San Joaquin River, the fall-run population is generally less than 10,000 fish.[9] The Sacramento and San Joaquin River systems are heavily supplemented with hatchery raised fall-run Chinook. Fall-run Chinook salmon is the most abundant run at the RBDD. The highest total at RBDD since 1970 occurred in 1999 with 133,365 fish, the lowest occurred in 1998 with 5,718 fish. Fall-run totals at the RBDD during the 2000's (including 2005 and 2006) have been comparable to the 1970's, 1980's, and 1990's. However, the preliminary estimates for 2007 are the second lowest estimate for the 47 year period. Yuba River, Battle Creek, Butte Creek, Clear Creek, Mill Creek, Feather River, and the American River, also all support fall-run Chinook salmon. For fall-run Chinook salmon numbers relevant to this EIR, see Tables 7.3-2, 7.3-3, and 7.3-4.

Currently, each of the four runs mentioned are either in decline or remain at critically low levels. Fall-run salmon, for example are forecast to be at an all time low.[10] The reasons for the decline are unclear. Historically, ocean conditions have been a major determinant of salmon productivity and may have played an important role in this decline. However, freshwater conditions also play an important role. The Pacific States Marine Fisheries Commission lists six major factors responsible for the decline in abundance and distribution of salmon: agriculture, urbanization, drought, fishing, forestry, and dams. Of the six factors, the one that is directly related to SWP operation is dams. Dams negatively impact salmon distribution and abundance by reducing fresh water flow in rivers and streams, reducing habitat area; creating barriers that prevent salmon from migrating upstream and downstream. Further, the SWP pumps remove an unknown number of salmon fry and smolts.

8. Moyle, Peter B. 2002. *Inland fishes of California*. Berkeley: University of California Press.
9. Moyle, Peter B. 2002. *Inland fishes of California*. Berkeley: University of California Press.
10 Pacific Fishery Management Council, "Sacramento Salmon Forecast at All-Time Low" www.pcouncil.org/newsreleases/Feb_2008_Sacramento_News_Release.pdf. February 28, 2008.

**TABLE 7.3-5**

**SPECIAL STATUS FISH SPECIES AND DESIGNATED CRITICAL HABITAT WITHIN THE SACRAMENTO-SAN JOAQUIN DELTA IN 1995 AND 2003**

| Species | 1995 Status (date) (source) | 2003 Status (date) (source) | Critical Habitat |
|---|---|---|---|
| River Lamprey *Lampetra ayresi* | Class 3 (1) | State and Federal Species of Concern (2) | |
| Pacific Lamprey *Lampetra tridentata* | Class 4 (1)[B] | Federal Species of Concern (2) | |
| Kern Brook Lamprey *Lampetra hubbsi* | Class 2 (1) | State and Federal Species of Concern (2) | |
| Green Sturgeon *Acipenser medirostris* | Class 1-T (1) | State Species of Concern (2) | |
| Chinook *Oncorhynchus tshawytscha* | | | |
| Winter Run | State (9/89)and Federal Endangered (1/94) (59 FR 440) | State (9/89)and Federal Endangered | 6/93 (58 FR 33212) |
| Spring Run | State (9/89)and Federal ThreatenedClass 1-E (1) | State (2/99) and Federal Threatened (9/99) (64 FR 57399) | |
| Fall/Late Fall Run | Fall Run: Class 4 (1) Late Fall: Class 2 (1) | Listing Not Warranted - Candidate (9/99) (64 FR 57399) | |
| Central Valley Steelhead *Oncorhynchus mykiss* | Class 4 (1)[C] | Federal Threatened (3/98) (63 FR 13347) | |
| Delta Smelt *Hypomesus transpacificus* | State (12/93) and Federal Threatened (3/93) (58 FR 12854) | No Change | 12/94 (59 FR 65256) |
| Longfin Smelt *Spirinchus thaleichthys* | Class 1 (1) | Species of Concern (2) | |
| Sacramento Splittail *Pogonichthys macrolepidotus* | Proposed for listing as threatened (64 FR 5963) | Federal Threatened status remanded (9/03) (68 FR 55140) | |

Notes: Unfortunately, when a species is designated a Species of Concern by one of the regulatory agencies, there is not a listing date associated with this action that could be used to sort species into the appropriate timeframe discussion. Because of this, the species categorized as Class 1 or Class 2 in *Fish Species of Special Concern in California,*[11] are considered to represent the State and Federal Species of Concern for the 1995 environmental setting.

A. From Moyle et al. (1995):
- Class 1-E: Those species that meet the State or federal definitions as endangered.
- Class 1-T: Those species that meet the State or federal definitions as threatened.
- Class 2: Species of special concern. These are species with scattered or very localized populations. Considered equivalent of the 2003 Species of Special Concern status.
- Class 3: A "watch list" designation for species whose range is much restricted in comparison to historic conditions.
- Class 4: Populations that are apparently secure.

B. Noted as being in decline (Moyle et al. 1995).

C. "Winter steelhead" were noted as being in decline and probably deserving of being Class 3 (Moyle et al. 1995).

Sources:
1. Moyle, P.B., R.M. Yoshiyama, J.E. Williams, and E.D. Wikramanayake. 1995. Fish species of special concern of California. Final report prepared for State of California, Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California.
2. CDFG (California Department of Fish and Game) 2008~~3d~~. Special Animals list, ~~July~~ May 2008~~3~~. ~~Available online at: http://www.dfg.ca.gov/hcpb/species/lists.shtml.~~ http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEAnimals.pdf.

11. Moyle, P.B., R.M. Yoshiyama, J.E. Williams, and E.D. Wikramanayake. 1995. Fish species of special concern of California. Final report prepared for State of California, Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California.

### 7.2.4.2 Decline of Delta Pelagic Organisms since 2003 (Subsection 7.3.2.4 of the DEIR)

The San Francisco Estuary is a highly modified ecosystem with numerous documented long-term ecological changes. Declining abundance of some estuarine fish taxa has been one conspicuous change. Longfin smelt, delta smelt, and young-of-year striped bass are several taxa that have declined since intensive monitoring programs were initiated in the 1950s and 1960s. Recently, these and other species have declined further and have generally had abundance indices that were lower than expected based on previous relationships to springtime river flow into the estuary. This recent decline, which happened somewhere between the late 1990s and early 2000s, has been described as Pelagic Organism Decline (POD). The POD includes four fish species along with several zooplankton taxa. Life historiesy background for two three of the POD fishes (longfin smelt and, delta smelt, and splittail) and splittail is are provided below. Department monitoring, through the Interagency Ecological Program (IEP), has found the POD is likely restricted to pelagic fishes dependent on the upper estuary (Suisun Bay and the Delta). Pelagic marine fishes using San Francisco and San Pablo bays were not affected, nor were nearshore fishes (such as splittail described below) that inhabit the upper estuary.

It is not clear whether the POD represents a simple continuation of long-term declines or a new stressor that has further degraded pelagic fish resilience. Long-term influences such as river flow variation and overbite clam impacts on the pelagic food web are mentioned in the species life history sections below. The POD investigations have proceeded under a working hypothesis that the recent declines are a response to a new stressor (or at least a new version of an older stressor). The investigation centers around impacts of water project operations, food web changes, and contaminants (Table 7.3-13).

**TABLE 7.3-13**

**SUMMARY OF THE PRIMARY ENVIRONMENTAL STRESSORS BEING EVALUATED AS PART OF THE PELAGIC ORGANISM DECLINE INVESTIGATIONS**

| Stressor Group | Stressor Subgroups | Affected fish life stage or time of year |
|---|---|---|
| Water Project Operations | ➢ Winter entrainment<br>➢ Spring entrainment<br>➢ Fall habitat<br>➢ Entrainment of lower trophic-level | ➢ Spawning adults<br>➢ Larvae<br>➢ Juveniles/maturing adults<br>➢ Juveniles |
| Food Web Changes | ➢ Smelt-copepod co-occurrence<br>➢ Pelagic productivity sinks<br>➢ Benthic productivity sinks<br>➢ Increase in predation | ➢ Juveniles<br>➢ Juveniles<br>➢ Larvae-juveniles<br>➢ All |
| Contaminants | ➢ Ambient water toxicity<br>➢ Pyrethroids<br>➢ Microcystis blooms | ➢ All year<br>➢ All year<br>➢ Late summer/fall |

**POD Update: 2007 Synthesis of Results**

Results from a number of recent POD studies have been reported and synthesized into a progress report.[12] The progress report highlights the latest research regarding a number of factors which may collectively contribute to POD. While many of these results are preliminary and currently not yet peer reviewed, they do represent the latest thinking regarding POD and as such are discussed here briefly.

Results indicate that stock-recruitment mechanisms and survival among life stages has changed from pre-POD times. Low population abundance levels, currently outside the historical realm of variability, appears to have reduced ability to rebound from declines. In particular, due to their critically low numbers delta smelt populations may experience a decline in reproductive output, further reducing their ability to rebound from the population decline.

The progress report also highlights the importance of associations between POD and the declining quality of important environmental variables such as Secchi depth (i.e., water clarity or turbidity), specific conductance (a surrogate for salinity), and water temperature. Long-term data show that habitat quality and population abundance estimates have both declined for delta smelt and striped bass. Toxic effects from both man-made and natural toxins were also investigated.

Predation and water diversions were also identified as contributors to POD, although both are considered unlikely single causes for POD. One predator, largemouth bass (*Micropterus salmoides*), has increased coincident with a rise in submerged aquatic vegetation and may contribute to increased predation within the Delta. Results also show that entrainment at the CVP and SWP pumps, may be important in some years for some species of fish. Research also suggests that an increase in exports, shifts in tributary inflows (San Joaquin and Sacramento Rivers) and an increase in the duration of the operation of the South Delta Barriers may have contributed to a shift in hydrodynamics, increasing fish entrainment.

Study results show that SWP operations as a whole (i.e., not the proposed project) that have led to the changes in conditions of the Delta may have indirectly helped to promote invasive species. Competition and predation from invasive species are also considered a stressor to POD.

Other findings highlight recent changes in the species composition of important prey items (zooplankton). Research in progress may clarify whether this shift in prey items may come at an energetic cost to the POD fish. Researchers will continue to investigate the numerous factors currently considered to be contributing to the Pelagic Organism Decline.

**Note:** The Department recognized~~s~~ that during the 2007 calendar year there had~~s~~ been a continued decline in pelagic fisheries within the San Francisco Estuary, most notably the delta smelt. The operation of the SWP, with emphasis on water ~~deliveries~~ exports via Banks Pumping Plant, ~~i~~was undergoing increased scrutiny from the public and

12 Baxter, R., R. Breuer, L. Brown, M. Chotkowski, F. Feyrer, M. Gingras, B. Herbold, A. Mueller-Solger, M. Nobriga, T. Sommer, and K. Souza. 2008. Pelagic Organism Decline Progress Report: 2007 Synthesis of Results. Interagency Ecological Program submitted to the California State Water Resources Control Board January 16, 2008, www.waterrights.ca.gov/baydelta/pelagicorganism.html. Accessed March 5, 2008.

various groups concerned about the health of fisheries and the Delta ecosystem. On May 31, 2007, the Department shut down the pumps at Banks after record low number of delta smelt. On June 8, 2007, limited pumping resumed to meet critical water needs. Increasingly, fish species in the Delta face stressors that include competition with invasive species, toxicity run-off from surrounding farms, and a shortage of food sources. Additional information is currently being obtained regarding the multiple threats currently faced in the Delta and San Francisco Estuary. The Department continues to follow all legal environmental restrictions regarding the timing and amount of water that is pumped at Banks. As new scientific data and legal environmental issues surface regarding the SWP operation in the Delta, the Department will continue to evolve its SWP operation strategies to ensure environmental compliance and SWP contractor exports. In winter 2008 a new POD synthesis report ~~will be~~ was made available that ~~will~~ included all the latest scientific data and information as it pertains to the Delta and the POD.

~~at Banks after record low number of delta smelt. On June 8, 2007, limited pumping resumed to meet critical water needs. Increasingly, fish species in the Delta face stressors that include competition with invasive species, toxicity run-off from surrounding farms, and a shortage of food sources. Additional information is currently being obtained regarding the multiple threats currently faced in the Delta and San Francisco Estuary. The Department continues to follow all legal environmental restrictions regarding the timing and amount of water that is pumped at Banks. As new scientific data and legal environmental issues surface regarding the SWP operation in the Delta, the Department will continue to evolve its SWP operation strategies to ensure environmental compliance and SWP contractor fulfillment. In Fall 2007 a new POD synthesis report will be available that will include all the latest scientific data and information as it pertains to the Delta and the POD.~~

**Longfin Smelt (Spirinchus thaleichthys)**

The San Francisco Estuary population of longfin smelt is the southernmost along the U.S. Pacific Coast. Most longfin smelt live two to three years. They spawn in tidal freshwaters of the Delta, Suisun Bay/Marsh, and probably other suitable locations such as the Napa River. Most spawning occurs between February and April, though spawning can occur well before and after the peak period. Larvae drift downstream and generally have population epicenters at X2. The juvenile and adult longfin smelt rear in brackish to marine waters throughout San Francisco Estuary and the adjacent coastal ocean. San Francisco Estuary longfin smelt population abundance fluctuates in response to Delta river outflows, being higher in years of high spring flow.[13] Although, t~~T~~he flow versus abundance relationship for longfin smelt did not change~~d~~ coincident with the invasion of overbite clam, *Corbula amurensis*.~~;~~ the invasion and the associated changes in the food web did reduce the magnitude of the response:[14] fewer longfin smelt are now produced per unit flow as indexed by X2. The CDFG FMWT~~FallMidwaterTrawl~~ has monitored longfin smelt population trends since 1967. The maximum abundance index (81,790) was recorded in 1967. The indices averaged 17,060 per year for the pre-overbite clam period, 1967-1986. Since then (although the indices have averaged 1,621~~775~~ per year, with a maximum of 8,646 in 1995) there has

13. CDFG (California Department of Fish and Game) 2000c. Longfin Smelt in San Francisco Bay. Central Valley Bay-Delta Branch. www.delta.dfg.ca.gov/baydelta/monitoring/lf.asp.

14 Kimmerer, W.J. 2002. Effects of freshwater flow on abundance of estuarine organisms: physical effects or trophic linkages. Marine Ecology Progress Series 243:39-55.

been considerable variation. Population index was 129 in 2005; 1949 in 2006; and 13, a record low in 2007. On February 7, 2008 the California Fish and Game Commission accepted a petition to list longfin smelt under the California Endangered Species Act (CESA). Therefore, longfin smelt is a Candidate species under California law. USFWS is also looking at the status of the longfin smelt and may list the fish under Federal law. The SWP currently operates under an emergency regulation for take of longfin smelt. ~~Even after the overbite clam invasion, longfin smelt larvae were the most numerous species collected during the first seven years of the CDFG 20mm Survey of post-larval fishes. This suggests young longfin smelt still comprise a dominant portion of spring pelagic fish biomass in the upper estuary and Delta.~~

**Delta Smelt (Hypomesus transpacificus)**

Delta smelt is a landlocked relative of the surf smelt, *Hypomesus pretiosus*, and is endemic to the San Francisco Estuary. Most delta smelt live one year. They spawn in tidal freshwaters of the Delta, Suisun Bay/Marsh, and the Napa River. Most spawning occurs between March and May, though spawning can occur before and after the peak period. Larvae drift downstream and generally have population epicenters about 20 kilometers upstream of X2. Juvenile and adult delta smelt rear in fresh to brackish waters of Suisun Bay and the lower Sacramento River. Delta smelt population trends have fluctuated unpredictably through time. This suggests the delta smelt population is subjected to several significant drivers that cannot be readily aggregated into a variable like X2. The CDFG FMWT~~Fall Midwater Trawl~~ has monitored delta smelt population trends since 1967 (Table 7.3-14). The maximum abundance index (1,673) was recorded in 1970; a nearly equivalent index (1,653) was recorded in 1980. In the past three years (2005, 2006, and 2007), however, population estimates have dropped to the three lowest estimates recorded in FMWT history: 27, 41, 28. Delta smelt is both federally and State listed as a threatened species. Delta smelt ~~larvae~~ were the eighth most numerous species collected during the first seven years of the CDFG 20mm Survey of post-larval fishes.

**TABLE 7.3-14**

**ADULT DELTA SMELT RECOVERY INDEX (BASED ON FALL MID-WATER TRAWL SURVEY)**

| Year | Recovery Index | Year | Recovery Index |
|---|---|---|---|
| 1967 | 139 | 1988 | 67 |
| 1968 | 251 | 1989 | 76 |
| 1969 | 128 | 1990 | 81 |
| 1970 | 598 | 1991 | 171 |
| 1971 | 352 | 1992 | 26 |
| 1972 | 551 | 1993 | 400 |
| 1973 | 305 | 1994 | 19 |
| 1974 | No Data | 1995 | 252 |
| 1975 | 239 | 1996 | 28 |
| 1976 | 22 | 1997 | 62 |
| 1977 | 146 | 1998 | 169 |
| 1978 | 108 | 1999 | 322 |
| 1979 | No Data | 2000 | 265 |
| 1980 | 312 | 2001 | 314 |
| 1981 | 78 | 2002 | 33 |
| 1982 | 37 | 2003 | 101 |
| 1983 | 17 | 2004 | 25 |
| 1984 | 51 | 2005 | 4 |
| 1985 | 29 | 2006 | 21 |
| 1986 | 70 | 2007 | 5 |
| 1987 | 72 | 2008 | 2 |

Source: Emergency Petition to list the delta smelt as an endangered species under the ESA. Center for Biological Diversity, The Bay Institute, Natural Resource Defense Council. March 8, 2005, 2006, and 2007 updates from Delta Native Fishes Recovery; U.S. Fish and Wildlife Service.

In March 1993, delta smelt were listed as threatened by USFWS under the federal ESA. On June 7, 2007 delta smelt became a CESA Candidate Endangered Species.

**TABLE 7.3-22**

**SOUTH DELTA AND SALVAGE CONDITIONS DURING MONTEREY AMENDMENT-INDUCED PUMPING EVENTS FROM 1996 TO 2004[a]**
**EVENT 1**

| | Historical Conditions | | | | | | Estimated Monterey Amendment-Induced Banks Pumping | | |
|---|---|---|---|---|---|---|---|---|---|
| Date | Banks Pumping (cfs) | Banks Pumping (AF) | Delta Outflow (AF) | Delta Smelt Salvage | Splittail Salvage | Old and Middle River Flow (cfs) | Days with Induced Banks Pumping | Estimated Increase in Banks Pumping[b] (AF) | Increased Pumping as % of Delta Outflow |
| 6-Jan-98 | 6,046 | 11,971 | 50,975 | 12 | 18 | -8,180 | | | |
| 7-Jan-98 | 6,722 | 13,310 | 42,889 | 32 | 18 | -8,780 | | | |
| 8-Jan-98 | 7,068 | 13,995 | 37,048 | 12 | 12 | -9,010 | | | |
| 9-Jan-98 | 7,250 | 14,355 | 35,391 | 8 | 12 | -9,210 | | | |
| 10-Jan-98 | 7,246 | 14,347 | 39,285 | 12 | 126 | -8,700 | | | |
| 11-Jan-98 | 7,292 | 14,438 | 42,922 | 16 | 98 | -8,320 | | | |
| 12-Jan-98 | 7,340 | 14,533 | 80,832 | 0 | 90 | -8,500 | | | |
| 13-Jan-98 | 7,465 | 14,781 | 118,687 | 8 | 12 | -6,710 | X (3 hours) | 1,000 ~~10,821~~ | 0.84 ~~9.117%~~ |
| 14-Jan-98 | 76 | 150 | 148,787 | 0 | 0 | -2,672 | | | |
| 15-Jan-98 | 76 | 150 | 170,551 | 0 | 0 | -594 | | | |
| 16-Jan-98 | 74 | 147 | 209,504 | 0 | 0 | 229 | | | |
| 17-Jan-98 | 69 | 137 | 239,693 | 0 | 0 | 1,281 | | | |
| 18-Jan-98 | 76 | 150 | 260,661 | 0 | 0 | 1,353 | | | |
| 19-Jan-98 | 70 | 139 | 269,036 | 0 | 0 | 2,476 | | | |
| 20-Jan-98 | 74 | 147 | 259,226 | 0 | 0 | 2,730 | | | |

Notes:
a. Based on results from the historical operations analysis, which is intended to estimate the actual impacts of the Monterey Amendment on Delta exports from the Banks Pumping Plant from 1996 to 2004.
b. The estimated increase in Banks Pumping shown is part of the actual historical pumping that occurred during this period.

# 7.3 TERRESTRIAL BIOLOGICAL RESOURCES

# 7.3 TERRESTRIAL BIOLOGICAL RESOURCES

## 7.3.1 Introduction

The following responses address comments on the impact analysis contained in Section 7.4, Terrestrial Biological Resources of the DEIR. Comments primarily focused on impacts to terrestrial biological resources related to potential future drawdowns by contractors at Lake Perris and Castaic Lake. One comment (11-3) requests that the EIR should clarify that with KWBA's continued implementation of mitigation measures required by a pre-existing CEQA document and the KWB HCP/NCCP that the proposed project's activities related to the KWB would not result in significant impacts (terrestrial biological resources and cultural resources). The comments received on the DEIR's analysis for these issues were specific and require individual responses.

### Comments Addressed

The responses address the following comments: 11-3, 16-29, 16-93, 16-104, 16-105, 16-106, 16-107, 16-108, 16-109, 16-110, and 16-111.

## 7.3.2 Responses to Comments

### Response to Comment 11-3

The comment raises issues with regard to the significance findings for Impacts 7.4-3 (affects on special-status terrestrial biological resources on the KFE property associated with changes in land use and management) and 7.13-3 (affects on cultural and paleontological resources on the KFE associated with development of future groundwater banks). The comment notes that the DEIR found that there were no significant impacts for terrestrial biological resources or for cultural and paleontological resources for the period 1996-2003 because of KWBA's implementation of the mitigation measures required by a pre-existing CEQA addendum and the HCP/NCCP. The DEIR found with regard to future impacts that the proposed project could result in potentially significant impacts on these resources, but that following these mitigation measures would reduce the impacts to less than significant. The comment requests that the finding state that KWBA's continued implementation of these mitigation measures reduces potential impact on these resources to a "less than significant" level and thus no mitigation is required.

There are two ways of approaching an impact which could be significant but is not because it is subject to an already mandated mitigation measure – the first is the way used in the DEIR and the other is the way described in the comment. Both result in a finding of less than significant. The Department has considered the comment. While it agrees that the approach suggested in the comment is not unreasonable, it considers the approach used in the DEIR in this particular case to better describe the circumstances surrounding a potentially significant impact mitigated by an already mandated mitigation measure. Therefore, the significance finding for Impacts 7.4-3 and 7.3-3 will not be revised.

## Response to Comment 16-29

This comment raises three points: 1) the impact on terrestrial resources at Lake Perris should be less than significant; 2) several of the mitigation measures suggested with regard to the impact on riparian habitat at Lake Perris are not necessary; and 3) with installation of an irrigation system, the impact on riparian habitat at Lake Perris should be less than significant.

The first point relates to the DEIR's conclusion regarding special-status terrestrial biological resources at Lake Perris. The comment questions the determination that the proposed project would have a potentially significant and unavoidable impact on terrestrial resources at Lake Perris as a result of a reduction in fish populations. As discussed under Impact 7.3-7 on DEIR page 7.3-80:

> If the worst-condition were to occur, the initial reduction in reservoir elevation would reduce available open water habitat for recreationally important fish by almost half. Although detailed bathymetry is not available, it is expected that spawning habitats would also be substantially reduced. In addition, long-term drawdown could impact the density of fish populations; when reservoirs are drawn down fish would be more crowded. Available habitat would be reduced and the functional aquatic ecosystem would be degraded. Additionally, it is likely that more crowded and degraded habitat condition would reduce the populations of targeted sport fish (no endangered, rare, or threatened fish species are known to exist at Lake Perris or Castaic Lake), there is no evidence to indicate that populations would drop below self-sustaining levels or that effects would threaten to eliminate the recreational fishery, particularly for trout, which is restocked annually.

As discussed under Impact 7.4-5 on page 7.4-33, the reduction of fish populations identified under Impact 7.3-7 at Lake Perris could adversely affect terrestrial biological resources that use fish in the lake as a food source. The relationship between reduction in lake levels as a result of drawdowns and overall bird and bat populations is not clearly understood. Studies and observations made during the drawdown for seismic repairs at Lake Perris may help increase this understanding. A reduction in the fish population, even if the population would not drop below self-sustaining levels or even if there were other potential foraging sources, could still result in a significant and unavoidable reduction in the available food source (foraging habitat) which could result in a significant and unavoidable adverse affect to those species that depend on that fish as a food source (raptors, bats, waterfowl, etc.). Therefore, the significance finding for Impact 7.4-5 will not be revised.

The second two points relate to the DEIR's conclusion regarding riparian habitat and the special-status terrestrial species it supports at Lake Perris (Impact 7.4-6 on page 7.4-34).

First, the comment states that the source of the water supporting the riparian habitat at the shoreline is clearly the lake itself and questions the need for a surface and groundwater hydrology study. Because of the complexity of the riparian system and uncertainty of how it is affected by different water levels at Lake Perris and by subsurface or surface irrigation, the Department believes this study is necessary to help understand the relationships between the riparian habitat and water sources. This study will help understand what the groundwater influence is on the habitat. For example, if the habitat is largely supported by groundwater, supplied from the lake, then surface irrigation will not provide water in the manner in which the resource has adapted.

Second, the comment also questions the need for annual monitoring. Aside from the statement that the source of water supporting riparian habitat at the shoreline is the lake, the comment does not explain why there is not a need for annual monitoring. The Department believes that annual monitoring is needed. Monitoring prior to drawdowns will help establish a baseline and monitoring during drawdowns will help identify is changes to this habitat type which may occur over a long-term time period. The results of the annual monitoring report may help determine the magnitude of the drawdown necessary to trigger the need for irrigation. If the riparian habitat was adversely affected and it was known that water levels could not be restored, then irrigation would be required.

Finally, the comment questions the conclusion that with irrigation, this impact would remain significant and unavoidable. Riparian systems are complex and changes cannot be observed over a two year period. Although the installation of the irrigation system is a good first step to supporting this habitat type, it may not be enough to maintain it over prolonged drawdowns. See also Response to Comment 16-111.

## Response to Comment 16-93

The comment claims that language on page 7.4-21 of the DEIR is both duplicative and inconsistent. The Department has reviewed the paragraphs in question, and feels that there is information in both paragraphs that is important in analyzing Impact 7.4-1 on page 7.4-20 of the DEIR. Therefore, the second and third paragraphs on page 7.4-12 are revised to read as follows:

> As discussed in Section 7.6, Agricultural Resources, there is no strong evidence to support a conclusion that land was taken out of irrigated production as a result of the proposed project. Although the proposed project resulted in a reduction of agricultural contractor's share of SWP Table A amount on an annual average basis, it increased the reliability of their supplies. As a result, the risk associated with planting permanent crops was reduced. The proposed project could have, therefore, accelerated an existing trend toward more permanent crops. A change in the amount and type of agricultural production could affect the availability and utilization of agricultural habitat by wildlife. Permanent crops such as orchard crops provide lower quality habitat than row crops due to increased cover, pesticide/herbicide applications and frequent disturbance. However, no clear trend can be attributed to the proposed project that can be discerned for the period between 1996 and 2003.
>
> ~~The increased reliability in water supply could have affected the amount and types of agricultural production, which in turn affected the availability and utilization of agricultural habitat by wildlife. As a result (and due in part to economic benefits) farmers have, in some cases, replaced annual crops with permanent orchard crops such as grapes and almonds because they can depend on receiving water allocations annually, instead of being subject to drought conditions. Orchard crops provide even lower quality habitat than row crops due to increased cover, pesticide/herbicide applications and frequent disturbance.~~

## Response to Comment 16-104

The comment suggests that the DEIR include updated species lists for 2007. However, as described on page 5-2 of the DEIR, the Department used two time periods to evaluate impacts of the proposed project – 1995 and 2003. Therefore, the status of species in those years was used and considered for the analysis. No change to Table 7.4-2 or 7.4-3 will be made to include

the status of species in 2007. The Department recognizes that the status of some species have changed since 2003 as reflected in the table attached to the comment. It has reviewed the status changes and has determined that they do not change the nature or magnitude of the impacts or mitigation measures proposed.

The 2003 source for Table 7.4-2 was inadvertently left off. It has been added and reads as follows:

> California Department of Fish and Game Natural Diversity Data Base, May, 2003.

The sources for Table 7.4-3 were inadvertently left off. They have been added and read as follows:

> Sources:
> USFWS List of Candidate Fauna from California and Nevada as of 31 August 1994 (59 FR 58982).
> Endangered and Threatened Wildlife and Plants 50 CFR 17.11 and 17.12, August 20, 1994.
> State and Federal Endangered Animals for California and Listing Dates, Department of Fish and Game, Revised January 1994.
> California Department of Fish and Game Natural Diversity Data Base Special Animals, December 1992 (The 1994 version could not be located).
> California Department of Fish and Game Natural Diversity Data Base, May, 2003.

## Response to Comment 16-105

This comment questions whether periodic flooding occurs in the Tulare Lake Basin WSD as a result of natural rainfall and flooding or human related flooding. This flooding is natural. The proposed project does not affect the flooding nor is it affected by the flooding. The flooding is a background condition that explains why the annual crops, which are better for Swainson's hawk than permanent crops, are likely to continue in the area. See also Response to Comment 16-105 in FEIR Section 6.2.

## Response to Comment 16-106

This comment raises the issue that the number of bald eagles at Castaic Lake is unknown and questions the wording of the DEIR that could give the impression that between 2 and 10 bald eagles could be found at Castaic Lake. The third paragraph on page 7.4-32 of the DEIR is revised to read as follows:

> As discussed in Section 7.3, a reduction in lake levels could reduce overall fish populations, a food source for the bald eagle~~, which use the lake for foraging and for water supply~~. The number of bald eagles is generally reported for southern California reservoirs as 2 to 10 eagles between November and March each year (Stephenson and Calcarone 1999). The number of bald eagles at Castaic Lake is unknown, and is likely to be low although an occasional transient or wintering bald eagle may be found at the lake in the winter.

This change does not affect the analysis, which determined that the proposed project would have a less-than-significant effect on terrestrial resources at Castaic Lake.

## Response to Comment 16-107

The comment requests that the DEIR remove reference to the Yuma myotis because the species is no longer included on any resource agency special-status species list. The comment further makes recommendations for language in the last paragraph on page 7.4-33 of the DEIR. As discussed in Response to Comment 16-104, Yuma myotis was considered a special-status species in 1995 and 2003. Even though it is no longer a special-status species, it was a

special-status species during some of the years used to evaluate the proposed project. Therefore, this species will remain in the discussion. Further, the comment provides reference to occasional sightings of bald eagles at Lake Perris.

The information on bald eagles is included as a text change using the reference supplied in the comment. The first two sentences of the second paragraph on page 7.4-33 of the DEIR are revised to read as follows:

> Lake Perris provides a water supply and foraging habitat for ~~supports a variety of~~ special-status species (Table 7.4-2), including the osprey (*Pandion haliaetus*), greater western mastiff bat, ~~and~~ Yuma myotis (*Myotis yumanensis*), and~~that use the lake for foraging and water supply. Additionally, two special status species, the~~ double-crested cormorant (*Phalacrocorax auritus*)~~, and the bald eagle, are known to winter at Lake Perris~~. The bald eagle (*Heliaeetus leucocephalus*) is also occasionally observed foraging during the winter at the reservoir.

## Response to Comment 16-108

The comment notes that the Audubon's sponsored San Jacinto Lake Christmas Bird Count identified bald eagles at Lake Perris in 2004, none in 2005 or 2006, and one in 2007. The comment request that if this information be included in the DEIR that it be cited. See Response to Comments 16-106 and 16-107.

## Response to Comment 16-109

The comment disagrees with the significance conclusion of Impact 7.4-5 and provides support as to why. Please see Response to Comment 16-29.

## Response to Comment 16-110

The comment requests that the California thrasher (*Toxoxtoma redivivum*) should be dropped from the special-status species listed in Impact 7.4-6 on page 7.4-34 of the DEIR because it is no longer considered a special-status species. Even though it is no longer a special status species, the California thrasher was considered a special-status species in 2003 within the impact analysis for the period of 1996 to 2003. Therefore, this species will remain in the discussion.

The Department recognizes that the status of some species have changed since 2003 as reflected in the table attached to the comment. It has reviewed the status changes and determined that they do not change the nature or magnitude of the impacts or mitigation measures proposed. Since the observation of the California gnatcatcher occurred in 2007, the Department agrees that the reference to the California gnatcatcher observation should be under future impacts instead of 1996-2003.

Therefore, the second sentence of the first full paragraph on page 7.4-34 has been deleted as follows:

> ~~Additionally, in 2007 the California gnatcatcher (*Polioptila californica*) was observed using the riparian corridor.~~

The following sentence is added to the fourth paragraph on page 7.4-34 of the DEIR:

> As discussed above, the riparian habitat at Lake Perris supports a variety of special-status species. Additionally, in 2007 the coastal California gnatcatcher (*Polioptila californica californica*), a federally-listed threatened species, typically associated with upland scrub habitat, was observed foraging in the riparian corridor of Lake Perris.

## Response to Comment 16-111

The comment agrees with the conclusion for Impact 7.4-6 that the proposed project could result in a potentially significant and unavoidable impact on the riparian habitat at Lake Perris. The comment also notes that baseline studies and monitoring are essential though not necessarily considered mitigation and then suggests mitigation measures that could be added to reduce the impact of the proposed project. The first suggested mitigation measure includes planting seedlings once the water level has been brought up to the level that previously supported the riparian community prior to the drawdown. It then suggests current baseline aerial photo documentation of the riparian corridor community. As stated in the first paragraph on page 7.7-15 of the DEIR, mitigation measures such as hydroseeeding (planting) would be economically and physically infeasible because the potential area of exposed soils and scale of effort. Therefore, this suggestion is not included as mitigation for the proposed project.

The final suggestion in this comment suggests pursuing off-site mitigation opportunities should the other measures fail. While this could result in the long-term protection of riparian habitat (through the purchase of mitigation credits in perpetuity), this preservation would occur at a location away from Lake Perris. Due to the unique nature of this habitat and the species that use it, off-site mitigation would not reduce the magnitude of this impact; therefore this suggestion is not included as mitigation for the proposed project.

# 7.4 VISUAL RESOURCES

# 7.4 VISUAL RESOURCES

## 7.4.1 Introduction

The following response addresses comments on the impact analysis contained in Section 7.5 Visual Resources of the DEIR. The comments primarily focused on impacts on visual resources related to potential future drawdowns by contractors at Lake Perris and Castaic Lake. An additional comment questioned inconsistency in significance conclusions for impacts that may be beneficial. The comments received on the DEIR's analyses for these issues were specific and require individual responses.

### Comments Addressed

The responses address the following comments: 16-27 and 16-30.

## 7.4.2 Responses to Comments

### Response to Comment 16-27

The comment claims that there is inconsistency in the significance conclusions for impacts that include some benefit and specifically mentions potential benefits from increased water surface elevations between 1996 and 2003 at both Castaic Lake and Lake Perris on visual, air quality (related to erosion), geology (soils) and recreational resources. As a result of the comment received, the Department reviewed the analysis and conclusions of the DEIR and determined that they represent an appropriate level of analysis and significance determination. Identification of some benefit does not necessarily result in a beneficial impact. For example, Impact 7.2-1 (1996-2003) on page 7.2-10 of the DEIR was determined to be beneficial because the proposed project facilitated additional groundwater banking which raised groundwater levels and when compared to the standards of significance identified on page 7.2-2. However, as discussed under Impact 7.5-4 (1996-2003) on page 7.5-14, visual quality will benefit from higher water surface elevations; however, that benefit is not so clear when compared to the standards of significance identified on page 7.5-2 and could be the result of other factors so the impact was determined to be less than significant. A similar analysis applies to the air quality, geology and recreational resources at Castaic Lake and Lake Perris. Therefore, the significance conclusions mentioned in the comments are unchanged.

### Response to Comment 16-30

The comment disagrees with the conclusion in the DEIR that impacts on visual resources would be significant and unavoidable during an extended drawdown of water in Lake Perris and Castaic Lake as analyzed in DEIR Section 7.5 Visual Resources on page 7.5-15 (Impact 7.5-4). The comment states that under the baseline condition, the reservoirs are cycled annually exposing a visually prominent band of soil and rock every year. It points out that the drawdown of Castaic Lake in 2006 of nearly 100 feet below normal operating levels which was used in the DEIR to substantiate the difference of visual effects between the baseline and an extended drawdown was in fact part of normal operations unrelated to the Monterey Amendment.

The Department agrees that these operations were not caused by the Monterey Amendments, but were a result of maintenance of existing facilities and are not the result of a drawdown which lasted for an extended period of time. While the photos referenced do not show reservoir levels that could be achieved during extended drawdown, they do show the extent of exposure of bare earth that could be seen with a significant drawdown resulting from the Monterey Amendments. The DEIR stated that future borrowing could cause this to happen “more often than would occur without the project.”

In addition, the comment claims that extended drawdown at Lake Perris would not result in significant impacts because vegetation growth would occur in one growing season. Observations were made by the Department during the current drawdown for the Perris Dam Remediation Project in May 2007 to see what kinds of impacts occur during such an extended drawdown. The observations were shown in DEIR Figure 7.5-6 on page 7.5-17. These photos confirm the observation described in the comment that vegetation growth occurs in the year following an extended drawdown, but the photos show that the growth does not cover the entire band of soil exposed during an extended drawdown. The comment does not discuss the extent of revegetation and makes it clear that vegetative growth is dependent on seasonal weather conditions. Further, some of the vegetative growth along the reservoir shore was irrigated with a system that was imperfect and did not supply water to the lower areas of exposed soil.

Because significant drawdowns may occur more often under the Monterey Amendment and because it is not certain that natural succession will establish new vegetation with in one growing season, the impact conclusion will remain a significant and unavoidable. Therefore, no changes are made to the findings and conclusions of the DEIR.

# 7.5 AIR QUALITY

# 7.5 AIR QUALITY

## 7.5.1 Introduction

The following responses address comments on the impact analysis contained in Section 7.7 Air Quality of the DEIR. Comments primarily focused on impacts to air quality associated with future drawdowns allowed by contractors at Lake Perris and Castaic Lake. The comments received on the DEIR's analysis for these issues were specific and require individual responses.

### Comments Addressed

The responses address the following comments: 16-31 and 42-10.

## 7.5.2 Responses to Comments

### Response to Comment 16-31

This comment requests that the significance conclusion for impacts on air quality for Impact 7.7-6 on pages 7.7-14 and 7.7-15 of the DEIR specify that impacts from drawdown at Castaic Lake should be less than significant and separated from air quality impacts of drawdown of Lake Perris. The Department agrees with the comment. The following sentence is added after the second sentence of the first paragraph on page 7.7-15:

> Because the soils at Castaic Lake are characterized as clays~~;~~, the exposed soil would be subject to limited wind and/or water erosion potential and therefore, limited levels of particulate matter would be generated. Based on these soil characteristics, impacts to air quality from drawdown of Castaic Lake would be less than significant in the future. ...

The comment includes a letter from a consulting biologist commissioned by the MWDSC. The comment noted that the biologist's observation was that erosion does not take place at Lake Perris, except for locations where stormwater discharges into the lake from parking facilities at the park along the lake shore. The comment states that based on the biologist's observation that there is minimal erosion of the exposed lakebed associated with wind and wave action and that substantial re-growth and successful colonization of native plants has occurred since Lake Perris was drawn down for safety concerns, the conclusion of a significant and unavoidable air quality impact due to wind erosion at Lake Perris also does not appear to be supported. As discussed in Response to Comment 16-29 in FEIR Section 7.3, riparian systems are complex and changes can not be observed over a two-year period. Although the installation of the irrigation system is a good first step to support habitat revegetation along the shoreline, it may not be enough to maintain it over periods of prolonged drawdown. As further stated in the first paragraph on page 7.7-15 of the DEIR, "Mitigation measures such as hydroseeeding or spraying water over exposed soils would be economically and physically infeasible because the potential area of exposed soils and scale of effort to reduced wind erosion." Therefore, the conclusion of Impact 7.7-6 that the effect of wind erosion of soil at Lake Perris for periods of prolonged drawdown would be potentially significant and unavoidable will not be revised. See also Response to Comment 16-111 in FEIR Section 7.3.

## Response to Comment 42-10

The comment claims that the DEIR only lists construction as the sole reason for air quality problems in the San Joaquin Valley. As described on DEIR pages 7.7-1 and 7.7-2, the DEIR considered changes in agricultural land disturbance, changes in reservoir levels and shoreline exposure, as well as construction activities. Further, the impact analyses provided in Section 7.7 Air Quality considered these activities in addition to vehicle emissions from recreational trips to terminal reservoirs. The comment asks that if the Kern Water Bank reverted back to the State, would the Department use solar on its lands. To meet future SWP energy requirements, the Department evaluates new energy resources and reviews SWP power requirements with consideration of a variety of factors. See DEIR page 7.16-6. The Department also examines its operations for opportunities to conserve energy and to use renewable energy resources. Any specific operation would have to be examined on a case by case basis. Other issues raised by this comment are beyond the scope of the EIR. See also FEIR Subsection 17.2.2.

# 7.6 GEOLOGY, SOILS, AND MINERAL RESOURCES

# 7.6 GEOLOGY, SOILS, AND MINERAL RESOURCES

## 7.6.1 Introduction

The following responses address comments on impact analysis contained in Section 7.8 Geology, Soils, and Mineral Resources of the DEIR. Comments primarily focused on impacts to erosion of soil related to potential future drawdowns by contractors at Lake Perris and Castaic Lake. The comments received on the DEIR's analysis for these issues were specific and require individual responses.

### Comments Addressed

The responses address the following comments: 16-32, 16-94, and 16-112.

## 7.6.2 Responses to Comments

### Response to Comment 16-32

This comment requests that the significance conclusion for impacts on soil erosion for Impact 7.8-4 on pages 7.8-10 and 7.8-11 of the DEIR specify that impacts from drawdown at Castaic Lake should be less than significant and separated from soil erosion impacts of drawdown of Lake Perris. The Department agrees with the comment. The following sentence is added after the first sentence of the second paragraph on page 7.8-11:

> Because the soils at Castaic Lake are characterized as clays~~;~~, even though the slopes are steep along the perimeter, exposed soil would be subject to limited wind and/or water erosion. Therefore, based on soil characteristics, impacts to soil erosion from drawdown of Castaic Lake would be less than significant in the future. ...

With regard to Lake Perris, as discussed in Response to Comment 16-31 in FEIR Section 7.5 and in Response to Comment 16-29 in FEIR Section 7.3, riparian systems are complex and changes cannot be observed over a two-year period. Although the installation of the irrigation system is a good first step to support habitat revegetation along the shoreline, it may not be enough to maintain it over periods of prolonged drawdown.

The comment notes that the only observed areas of significant erosion occurred from stormwater discharge from drainage channels, which could be minimized and mitigated by placement of rip-rap or other means of controlling drainage flows, and suggests that such measures could mitigate significant soil erosion during periods of prolonged drawdown. While such measures might reduce erosion associated with stormwater discharge outfalls, this is not an impact of the proposed project since the project does not include placement of new or modification of existing stormwater outfalls. As further stated in the first full paragraph on page 7.8-11 of the DEIR, "Mitigation measures such as hydroseeeding landscaping to prevent erosion are not economically or physically feasible to cover such a wide area to prevent runoff of soil into the lake."

Therefore, the conclusion of Impact 7.8-4 that the effect of the erosion of soil at Lake Perris for periods of prolonged drawdown would be potentially significant and unavoidable will not be revised. See also Response to Comment 16-111 in FEIR Section 7.3.

## Response to Comment 16-94

The comment requests clarifications to the third paragraph on page 7.8-10 of the DEIR so that it is consistent with the information cited from DEIR Section 7.1. The third paragraph on page 7.8-10 is revised to read as follows:

> … As described in Section 7.1, Surface Water Hydrology, Water Quality, and Water Supply, the average water surface elevation~~s~~ at ~~Castaic Lake and~~ Lake Perris was about four feet higher between 1996 and 2003 than in the pre-Monterey Amendment period before 1995. The average water surface elevation at Castaic Lake from 1996 to 2003 was about ~~20~~ 23 feet higher than between 1974 and 1995. …

## Response to Comment 16-112

The comment includes a letter from a consulting biologist commissioned by the MWDSC. The comment noted that the biologist's observation was that erosion does not take place at the lake, except for locations where stormwater discharges into the lake from parking facilities at the park along the lake shore. The comment states that based on the biologist's observation that there appears to be minimal erosion of the exposed lakebed associated with wind and wave action, due in part to its gentle to almost flat shoreline, and that substantial re-growth and successful colonization of native plants has occurred since Lake Perris was drawn down for safety concerns, the conclusion of a significant and unavoidable impact on erosion at Lake Perris does not appear to be supported.

The conditions along the lake shore are currently under observation by Department staff and CDFG staff. The DEIR included information from a site visit to Lake Perris conducted in May 2007. The Department notes that the observations expressed in the comment were taken during the winter season, when rainfall and lower temperature conditions create conditions amenable to vegetative growth.

As discussed in Response to Comment 16-32, riparian systems are complex and changes can not be observed over a two-year period. Although the installation of the irrigation system is a good first step to support habitat revegetation along the shoreline, it may not be enough to maintain it over periods of prolonged drawdown.

As stated on page 7.8-4 of the DEIR, the soil at Lake Perris is considered sandy and susceptible to wind and wave erosion. Despite the growth of vegetation during the winter months, most vegetation observed between the high water mark and the current drawdown is not likely to survive during the hot and dry summer months. This could lead to exposed soil susceptible to erosion from wind and wave action and therefore the impact conclusion will remain significant and unavoidable.

The comment notes that the only observed areas of significant erosion occurred from stormwater discharge from drainage channels which could be minimized and mitigated by placement of rip-rap or other means of controlling drainage flows and suggests that such measures could mitigate significant soil erosion during periods of prolonged drawdown. As also discussed in Response to Comment 16-32, while such measures might reduce erosion associated with stormwater discharge outfalls, this is not an impact of the proposed project

since the project does not include placement of new or modification of existing stormwater outfalls. As stated in the first full paragraph on page 7.8-11 of the DEIR, “Mitigation measures such as hydroseeeding landscaping to prevent erosion are not economically or physically feasible to cover such a wide area to prevent runoff of soil into the lake.”

Therefore, the conclusion of Impact 7.8-4 that the effect of the erosion of soil at Lake Perris for periods of prolonged drawdown would be potentially significant and unavoidable will not be revised as requested by the comment. See also Response to Comment 16-31 in FEIR Section 7.5, and Responses to Comments16-29 and 16-111 in FEIR Section 7.3.

# 7.7 RECREATION

# 7.7 RECREATION

## 7.7.1 Introduction

The following response addresses comments on the impact analysis contained in Section 7.9 Recreation of the DEIR. The comment primarily focused on impacts to recreation associated with potential future drawdowns by contractors at Lake Perris and Castaic Lake. The comment received on the DEIR's analysis for this issue was specific and required an individual response.

### Comments Addressed

The response addresses the following comment: 16-33.

## 7.7.2 Responses to Comments

### Response to Comment 16-33

The comment questions several of the mitigation measures for potential significant effects of the Monterey Amendments Article 54 extended drawdowns at Castaic Lake and Lake Perris. The comment questions the purpose of the notification requirement for Mitigation Measure 7.9-1(a). The purpose of the Mitigation Measure 7.9-1(a) is to inform the public at large of significant drawdowns at either of the reservoirs so that they are able to make decisions on their recreation plans and not travel to either of the reservoirs without knowledge of the limitations on access, swimming, boating, etc. The Department does not wish to discourage any recreational use, but provide the public with timely information on conditions as a result Article 54 extended drawdowns. Rewording the mitigation measure is not required because the Department believes that informing the public of the conditions at the reservoirs would also include providing information on recreation opportunities or uses that are unaffected by an extended drawdown. The comment states that informing the public of the duration and magnitude of a drawdown may be impractical because of a lack of information on the time of replacement of water in the reservoirs. The mitigation measure does not include specific time constraints or limitation on when to notify the public based on the magnitude or time of the drawdown.

The mitigation measures provide the Department flexibility to meet changing conditions and will provide the public with timely information at the Department's discretion. Experience gained from the Department's current notifications regarding recreation opportunities that are still available during the current drawdown at Lake Perris may provide useful information with regard to public notification.

The comment asserts that Mitigation Measure 7.9-1(c) would only apply to drawdowns at Lake Perris. Even though the swimming area at Castaic Lake is in the lagoon immediately downstream of the dam, during an extended drawdown water quality monitoring in the downstream lagoon may still be necessary to prevent exposure of swimmers to poor water quality. This water quality monitoring will occur in coordination with existing water quality monitoring conducted at the lagoon. This provides more safety to the public from exposure to bacteria and other water quality parameters adopted by the California Department of Health Services.

## 7.8 ENERGY

# 7.8 ENERGY

## 7.8.1 Introduction

The following responses address comments on the energy impact analysis contained in Section 7.16 of Chapter 7 of the DEIR. Comments covered several primary issues including: significance threshold of changes in energy use; costs due to changes in energy use; and, analysis used to determine energy use. The master response is organized by the following subtopics:

7.8.2.1 Scope of the Analysis
7.8.2.2 Energy Costs
7.8.2.3 Energy Use
7.8.2.4 Descriptions for SWP Project Energy Use
7.8.2.5 Descriptions for SWP Power Plant Energy Generation

Some of the comments received on the DEIR's energy analysis are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Subsection 7.8.3 of this Section immediately following the master response. Individual responses to comments which are fully addressed by the master response include reference to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This section addresses the following comments: 16-97, 21-37, 21-38, 22-22, 42-5, and 62-2.

## 7.8.2 Master Response

### 7.8.2.1 Scope of the Analysis

Comments addressed in this subsection include: 21-37, 21-38, 22-22, 42-5, and 62-2.

Comments questioned the adequacy of the energy analysis in the DEIR and the thresholds used to evaluate impacts. The CEQA guidelines do not contain significance thresholds for impacts on energy use in regards to a proposed project. The significance criteria listed below are based on Appendix F of the CEQA Guidelines. Environmental Impacts may include:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance and/or removal.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.

- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

As stated in the DEIR in Subsection 7.16.2.2 on page 7.16-2:

> Project effects on the SWP net energy requirement would be considered potentially significant if the proposed project would:
>
> - Result in a substantial increase, of more than 10 percent, in net electricity consumption.
> - Require or result in the construction of new electrical power generation facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (found in Appendix G of State CEQA guidelines).

The use of the 10 percent threshold is not found in CEQA guidelines, but does provide a useful target for the purposes of comparing estimated net electricity consumption increases or decreases from the proposed project. The use of the 10 percent threshold also demonstrates whether or not the proposed project would result in substantial increases in power demand and encourage activities which could result in use of large amounts of fuels. The 10 percent value has been used in other EIRs, such as the *CALFED Bay-Delta Final Programmatic EIR/EIS* and the *South Delta Improvement Program Draft EIS/EIR,* http://baydeltaoffice.water.ca.gov/sdb/sdip/documents/draft_eis_eir.cfm. Even if it were determined that the 10 percent value is too high a threshold, the actual increase identified in the DEIR for future operations as a result of the proposed project is less than three percent.

The only change resulting from the Monterey Amendment that has the potential to cause increased exports and adverse impacts on Delta fisheries is the implementation of the water supply management practices. The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small but potentially significant impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

The DEIR concluded that although there may be more pumping under the proposed project, the estimated net load increases stated on DEIR page 7.16-8 in Table 7.16-2 (2.02 percent net load increase under 2020 Post-Monterey conditions) would not have a significant impact on energy based on the criteria from Appendix F of the CEQA Guidelines. As stated in Section 7.16 of the DEIR, implementation of the proposed project would not require new construction or the modification of existing SWP facilities. SWP facilities were constructed to meet the anticipated demands of the SWP contractors. The amount of additional energy required would be within the limits of the planned supply, and no expansion or construction of new facilities to generate power would be required. In addition, the Department's current energy related contracts would cover any anticipated increase in energy due to the proposed project (some of these are

highlighted in Section 7.16.3.1 of the DEIR on pages 7.16-2 to7.16-6). The net energy load increase from the proposed project would not significantly impact:

- Energy requirements and energy use efficiencies by amount and fuel type for each stage of the project's life cycle.
- Local and regional energy supplies and on requirements for additional capacity.
- Peak and base period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- Energy resources.
- Projected transportation energy use requirements and overall use of efficient transportation alternatives.

### 7.8.2.2 Energy Costs

Comments addressed in this Subsection include: 21-38, 22-22, and 42-5.

Some comments noted that the proposed project would result in an increase in pumping and associated increase in energy cost. This issue of payment of costs regarding any increased energy due to the proposed project is not an environmental issue resulting from the proposed project and is outside the scope of the EIR unless it directly or indirectly results in a significant environmental impact. To the extent that these issues are related to potential physical changes in the environment, they have already been included in the EIR. There is no evidence in the DEIR or the comment that would indicate that there is either a direct or indirect significant impact to an environmental resource related to who pays for the energy costs to deliver water to KWB or any other area since each water user pays for the energy costs of delivery. However, this EIR provides some information and background on some of these issues so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. The comments received are part of the permanent record for this proposed project and will be forwarded, as appropriate, to the Director for his consideration. See FEIR Subsection 4.2.1.3.

Energy costs associated with the proposed project are paid for by all contractors at the same rate per acre foot for the cost of operating facilities which store and convey the SWP water supply. In addition, each contractor pays a transportation charge which covers the cost of facilities required to deliver water to its service area. Thus, the contractors more distant from the Delta pay higher transportation charges than those near the Delta. Full payments are made each year for fixed SWP costs regardless of the variations in water deliveries that occur from year to year. Fixed costs include those for operation, maintenance and debt service. Contractors also pay varying costs that depend on the amount of water delivered during the year. These include the costs for energy used to pump water to their aqueduct turnout locations. See DEIR Subsection 2.6.2 on page 2-19 for a discussion of repayment under the SWP long-term water supply contracts.

Two issues were raised with regard to paying for any increased costs to pump water to KWBA. First, it appears to assume that any increased costs are shared in some way by all SWP contractors. Second, it assumes that beneficiaries of the KWB deliveries pay less for energy than it costs to deliver the water. Both assumptions are incorrect. All energy costs are borne by the participant moving the water. Other SWP contractors do not subsidize the water delivered

to any contractor, including that water that is delivered to the KWB. The KWBA charges an estimated unit cost for recharge or recovery throughout a financial program. (The most recent charges (year 2007) for recharge are $3 for pump stations, with a $0.40 surcharge for summer months, and for well recovery the charges are $36.25, with a $4 surcharge for summer use.)[1] Every year, KWBA compares the money collected to the actual costs. At such time, KWBA would either refund any excess collected or ask for more to cover shortages.

Comments were raised claiming that water entities that are not direct contract recipients of the SWP, but receive water should pay costs for pumping to fill the KWB. All of the SWP contractors are wholesalers that deliver water to other water entities that are direct contract recipients of the SWP. Energy costs are borne by the participant (SWP contractor and its subcontractors) moving the water and are not subsidized by other SWP contractors; water users pay all of the energy costs associated with the delivery of water that they purchase.

Additionally, KWBA does not actively seek SWP water to be placed into the KWB Lands. The contractors request water from the SWP based on requests from their members and may deliver it directly to their members or place the water into the KWB Lands or other storage projects. DEIR Appendix E contains analysis of SWP and non-SWP sources of water deliveries to the KWB and its impacts as well as sales of water from the KWB Lands. Water stored in the KWB has been recovered by the KWB participants either for their own direct use or for sale to others. From 1995 through 2005 (years including or following dry years), recovery for participants totaled 138,224 AF. During the same period, water sales totaled 423,320 AF. Three quarters of this amount was sold to the EWA. The remainder went to agricultural entities within the San Joaquin Valley, a wildlife refuge, a power plant located within Kern County, and 4 percent made available to adjoining water districts. See FEIR Subsection 16.2.11.

Most of KWB's western ponds can be filled from the SWP with no energy consumption; the gates are just opened. KWBA uses pump stations to move SWP water to the eastern ponds. Water can be delivered from eastern water sources (Kern River and CVP) to anywhere on the KWB with no energy consumption.

### 7.8.2.3 Energy Use

Comments addressed in this Subsection include: 16-97, 21-37, 21-38, 22-22, 42-5, and 62-2.

The Edmonston Pumping Plant is the only facility used to pump water over the Tehachapi Mountains. The annual amount of water pumped at this plant is variable in any of the years in the following link for information on AF pumped at Edmonston: http://swpoco.water.ca.gov/annual/annual.menu.html (see Table 1).

As stated on page 7.16-7 of the DEIR, future pumping would be increased at some power plants and would be decreased at others. The energy and flow at SWP power plants and pumping plants are summarized in Table 7.16-3 on page 7.16-9 of the DEIR. Edmonston Pumping Plant would have an increase of 1.58 percent in energy usage and an increase in costs due to the proposed project. However, other pumping plants, for example Dos Amigos, would have a decrease in energy usage (5.70 percent energy decrease) and reduction in costs due to the proposed project. The Department has determined that there would be a net increase in energy used due to the proposed project, but a 2.02 percent increase would not have a significant impact on energy based on the standards of significance in the DEIR.

1 Jonathan Parker, General Manager at the Kern Water Bank Authority, personal communication with Mike Hendrick, California Department of Water Resources, March 12, 2008.

Some comments asked for an analysis of the other alternatives and their impact on energy use. The Department does not feel that this is necessary because the scenarios presented in Section 7.16 of the DEIR and in Tables 7.16-2 and 7.16-3 on pages 7.16-8 and 7.16-9 show the 2020 difference between the Monterey Plus Project alternative and the baseline. This difference shows the greatest possible impact on energy use of any of the alternatives. No project alternatives NPA1, CNPA3 and CNPA4 would be the same as the baseline. NPA2 and Alternative 5 would be more than the baseline but less than the proposed project.

Some comments also asked for an analysis of the energy use impact if the KWB were a State-owned facility. While it is impossible to know for sure how the KWB would have been operated if owned by the State, it is likely that a State-owned facility would store more water than a non-State-owned facility. In this scenario, a State-owned facility would use more energy as compared to a non-State-owned facility and the impacts would be greater. See FEIR Subsections 16.2.5, 16.2.6, and 16.2.7.

### 7.8.2.4 Descriptions for SWP Project Energy Use

Comments addressed in this Subsection include: 21-37, 21-38, 22-22, 42-5, and 62-2.

In regards to the baseline used in the energy calculation, a pre-project baseline level of energy consumption was used to compare 2020 proposed project levels of energy demands. DEIR Tables 7.16-2 and 7.16-3 on pages 7.16-8 and 7.16-9, respectively show these differences in energy demands for baseline and proposed project.

The Department feels confident that the CALSIM II and other analyses used in computing the energy loads related to the proposed project give realistic values for the 1996-2003 and future impacts. The CALSIM II model was run for the time period of 1922-93. Additionally, two more time periods were analyzed, 1929-34 and 1987-92, as a subset of 1922-93 by averaging just those years. The 1929-34 and 1987-92 time periods correspond with droughts. They are analyzed because these are periods of interest due to the lower reservoir storage that increases the risk of the SWP system to water shortages. Long term averaging, while informative, can at times mask the severity experienced during drought periods. Power generation is directly proportional to the level of storage in the reservoirs and power consumption is directly proportional to the pumping rates, both of which are of particular interest in drought periods.

The CALSIM numbers were created with the expectation that the additional pumping would occur. These numbers do occur in the net energy numbers, so yes, there were net increases and decreases.

Below are outlined the methods used in the analysis of determining the energy loads that are found within Section 7.16 of the DEIR.

#### General

The joint use pumping plants (Banks, San Luis, and Dos Amigos) were developed previously as part of the CVP power model. These facilities were modeled in exactly the same manner as had been done previously in the CVP model, with the exception that the data extraction involves the SWP share of each joint use facility. The following sequence of procedures explains the modeling of the SWP facilities.

1) The pumping data is retrieved from the DSS database.

2) The EF, plant power rating, and transmission losses (as a percent of total power) are values input by the user. Note: The State OCO supplied energy factors. The EFs were also calculated as a check using actual operations data. The plant power ratings came from the SWP Data Handbook. Percent transmission losses were also provided by OCO.
3) The off and on peak energy percentages are computed by dividing the monthly hours for off or on peak by the total hours. The State operators indicated that there are eight off peak hours per day, excepting Sundays and holidays. There are 24 off peak hours for each Sunday and holiday.
4) The total energy use if all the flow went through the plant is computed by multiplying the pumping data by the EF.
5) The off peak energy use is calculated by multiplying total energy use by a ratio of off hours to total hours for the month.
6) The physical maximum off peak energy use is computed using the off peak hours in a month multiplied by the maximum plant capacity. This computation is independent of the volume being pumped and is used to show the physical pumping capabilities of the facility.
7) The actual off peak energy use at the plant is the minimum of the physical off peak pumping capability (computed using the facilities physical constraints) and the off peak energy use (computed from the volume).
8) If the off peak energy use from the volume pumped exceeds that of the facility pumping capabilities then the given assumptions for the calculation do not allow for that much water to be pumped in the given time period. The user is notified with an “energy check” showing the amount that could not physically be pumped off peak. This extra pumping is carried over to on peak pumping.
9) The on peak energy use is computed by subtracting the actual off peak energy use from the total. Note: this would include any extra energy that could not be pumped off peak. Steps 5 and 6 are repeated for on peak pumping.
10) If the on peak energy use from the volume pumped exceeds that of the facility pumping capabilities then the given assumptions for the calculation do not allow for that much water to be pumped in the given time period. The user is notified with an “energy check” showing the amount that could not physically be pumped on peak; including any off peak energy use that could not be pumped on peak.
11) Energy use computations at the load center are made by multiplying a user-input transmission loss percentage by the actual energy use for total, off and on peak uses.

### 7.8.2.5 Descriptions for SWP Power Plant Energy Generation

Comments addressed in this Subsection include: 21-37, 21-38, 22-22, 42-5, and 62-2.

Below are outlined the methods used in the analysis of determining the power plant energy generation values that are found within Section 7.16 of the Monterey Plus DEIR.

#### General

The methodology for calculating SWP power is different from the existing methodology for calculating CVP power. The CVP power plant calculations involve the use of several functions

provided by Western Area Power Authority. These functions describe the unit capacity of each unit at each plant and are a function of elevation head. The SWP approach is different in that the maximum available capacity is calculated using the following power equation:

$$kW = 0.7457 * \gamma hQ\eta / 550$$

where:

$\gamma$ is the unit weight of water (62.4 lb / $ft^3$)

h is the energy head (in feet)

Q is the flow rate (in cfs)

$\eta$ is the plant efficiency

550 is a conversion to horsepower

0.7457 is a conversion from horsepower to kilowatts (kW)

1) Query the DSS database to import storage values and releases. Elevation and tail race are calculated using functions that relate elevation to storage. Note: Elevation-Storage functions were determined using trend-line analysis in Excel.
2) Gross head is calculated as the difference in elevation and tail race. Some of the power plant EFs are calculated using functions of the gross head. These functions were provided by the State OCO. The other EFs are assumed constant and were also provided by the OCO. The user has the option of using minimum or mean storage for the month.
3) The plant efficiencies, flow capacities through the plants, plant power ratings, and transmission loss percentages are all input by the user. Note: Flow capacities and plant power ratings are described in the SWP Data Handbook. The transmission loss percentages were provided by OCO. Plant efficiencies were calculated using the following equation:

   $$\eta = \text{Actual Power Production} / (0.7457 * \gamma hQ\eta_a / 550)$$

   where:

   h is the *actual* gross head

   Q is the *actual* release through the power plant

   $\eta_a = 1$ (i.e. 100 percent efficient)

   Note: Head losses are incorporated into the plant efficiency.

4) Available capacity is then calculated and the minimum of the plant power rating and the result of the following equation:

   $$kW = 0.7457 * \gamma hQ\eta / 550$$

   where h and Q are based on CALSIM II results (DSS data) and $\eta$ is from user input.

5) The maximum generation possible is calculated by multiplying the total hours for the month by the available capacity.

6) Next, the maximum possible power plant release is calculated by dividing the maximum possible energy by the EF.
7) The actual power plant release is the minimum of 1) the maximum possible power plant release based on the plant flow rating, 2) the maximum possible power plant release based on the maximum possible energy and energy factor, and 3) the total flow.
8) The energy at the plant is computed by multiplying the power plant release and the EF.
9) Spill is computed by subtracting the power plant release from the total release. The user is notified if spill is occurring.
10) Foregone energy is the spill multiplied by the EF.
11) Generation and capacity computations at the load center are made by multiplying a user-input transmission loss percentage (supplied by OCO) by the energy and the available capacity at the plant.

### 7.8.3 Responses to Comments

#### Response to Comment 16-96

The comment requests that the first sentence in the last paragraph on page 7.16-6 of the DEIR be revised to correctly reference net load increases. The first and second sentences in the last paragraph on page 7.16-6 of the DEIR are revised to read as follows:

> The post-processed power results were only ~~ran~~ run for the 2020 Level-of-Development. The 2020 conditions show a total long-term net load increase of only ~~1.6~~ 2.02 percent (see Future Impacts section). …

#### Response to Comment 16-97

The comment suggested that the reasons for an increase in energy impact would be helpful. See FEIR Subsection 7.8.2.3.

#### Response to Comment 21-37

The comment notes that the 10 percent significance threshold is not justified. See FEIR Subsections 7.8.2.1 and 7.8.2.3 through 7.8.2.5.

#### Response to Comment 21-38

The comment states that the DEIR does not evaluate proposed project alternatives and instead compares net energy loads under 2020 conditions with and without the proposed project. The comment further questions why no explanation is provided as to why different time periods were analyzed. See FEIR Subsections 7.8.2.1 through 7.8.2.5.

#### Response to Comment 22-22

The comment states that there are more impacts associated with energy requirements than just those associated with pumping transferred water (including the transfer of the KWB to the KWBA). The comment further states that a correct assessment of energy impacts should include the actual record of deliveries instead of CALSIM II. See FEIR Subsections 7.8.2.1

through 7.8.2.5. See also Response to Comment 22-22 in FEIR Chapter 16 for issues raised with regard to KWB.

### Response to Comment 42-5

The comment notes that the proposed project would result in an increase in pumping and other energy costs. See FEIR Subsections 7.8.2.1 through 7.8.2.5.

### Response to Comment 62-2

The comment questions how much global warming gas (GHG emissions) is generated by the energy it takes to pump water from the Delta. See FEIR Subsections 7.8.2.1 and 7.8.2.3 through 7.8.2.5. See also Response to Comment 62-2 in FEIR Chapter 12.

# 8. GROWTH-INDUCING IMPACTS

# 8. GROWTH-INDUCING IMPACTS

## 8.1 INTRODUCTION

The following responses address comments on the analysis of growth-inducing impacts contained in Chapter 8 of the DEIR. Comments covered several primary issues including: the validity of the methods and assumptions used in the analysis; the responsibility of the Department to assess local, regional and state-wide environmental impacts of urban development supported by potential population increases attributed to the proposed project (scope of the analysis); analysis of alternatives that would reduce impacts caused by growth; and clarification of the potential population that could be supported by water supply management practices attributed to proposed project implementation. The master response is organized by the following subtopics:

8.2.1 Methods and Assumptions
8.2.2 Scope of the Analysis
8.2.3 Alternatives
8.2.4 Water Supply Management Practices

Some of the comments received on the DEIR's growth-inducing analysis are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Section 8.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include reference to the appropriate subsection or subsections of the master response where the comment is addressed.

Text changes to DEIR Chapter 8 Growth-Inducing Impacts are presented in Section 8.4 and are summarized in Chapter 2 of this FEIR.

### Comments Addressed

This Chapter addresses the following comments: 6-13, 6-14, 6-15, 6-18, 16-14, 19-4, 21-39, 21-40, 21-41, 21-42, 21-43, 30-9, 30-57, 30-63, 30-65, 30-67, 30-69, 30-70, 30-78, 30-107, 30-108, 30-112, 30-113, 30-114, 30-115, 30-146, 35-3, 35-5, 35-6, 35-7, 36-10, 42-6, 62-6, 64-3, and 66-24.

## 8.2 MASTER RESPONSE

### Summary

Consistent with CEQA, the DEIR does not assume that growth inducement is necessarily beneficial, detrimental or of little significance to the environment. The DEIR's programmatic analysis examined Monterey Amendment measures to determine which ones might have growth-inducing impacts, and the conditions under which they could result in the largest potential impacts. As a result of the proposed project, the largest increase in water supplies that could potentially support additional growth occurs under average annual conditions. The M&I contractors that received these Table A transfers could receive an increase in average annual deliveries of SWP water even though the average annual deliveries to the other M&I contractors

are reduced. Most of this water would be Table A deliveries; a small amount could be Article 21 water when available. M&I contractors that did not purchase increased Table A amounts had a net decrease in Table A deliveries as a result of the proposed project. In order to fully disclose potential growth impacts, the DEIR took a very conservative approach and assumed that all of the net increases in average annual Table A and Article 21 deliveries resulting from Table A transfers to specific M&I contractors, after offsetting decreases due to revised allocation procedures, could be used to support urban growth. These assumptions are conservative because they assume that the total amount of additional water identified for each of these contractors would be used to support population growth in that contractor's service area – an assumption which is unlikely given past and current contractor behavior.

The DEIR concluded that although "…use of the water supply management practices could increase the reliability of M&I contractors' water supplies, there would be little effect on average annual deliveries of SWP water." Therefore, these practices would not contribute to growth inducement. In Response to Comments received on the DEIR regarding the growth-inducing impacts of the water supply management practices, and because those practices would primarily provide increased water supplies in dry years, the Department has reviewed the growth-inducing impacts of dry year supply increases from the proposed project, including from the water supply management practices. The Department has concluded that only the water supply management practice of out-of-service-area storage has the ability to provide supplies with sufficient magnitude and reliability to allow an agency to rely on the supply to bridge drought periods and, subject to local policy considerations, rely on withdrawals from storage as part of a supply that would support growth. While this analysis helps to clarify the potential population increase that might result from the Monterey Amendment, it does not change the final conclusion in Chapter 8 of the DEIR that there are potential growth-inducing impacts, that the growth-inducing assumptions are very conservative and overstate the potential for growth inducement, and that analysis of the environmental impacts and mitigation measures is done at the local level.

The analysis in the DEIR concluded that some of the additional water supply made available by the Monterey Amendment could support additional growth and that increases in population within a contractor service area could result in new development that causes adverse impacts to the environment that are potentially significant and cannot be avoided. It then identified in a general way potential adverse environmental impacts that could occur from increased population. Certain mitigation measures were discussed that local decision-makers could implement to avoid or minimize project-induced growth including, but not limited to, locating the growth in areas where sensitive resources are absent, minimizing the losses of resources, or replacing any resource loss. The DEIR concluded on page 8-15, "…neither the Department nor local water supply agencies make local decisions regarding growth and where it will occur. Cities and counties in the contractor service areas affected by the increased population are responsible for considering the environmental effects of their growth and land use planning decisions. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. Where appropriate, they must consider mitigation measures, alternatives and overriding considerations."

In summary, this EIR complies with CEQA by estimating the potential population that could be supported if the proposed project were implemented and by identifying potential impacts and mitigation measures that could result from local development decisions to accommodate that population in general terms. The level of detail contained in the DEIR for growth-inducing impacts and reliability analyses is consistent with the general level of review required for the Monterey Amendment. Even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require

extensive information about local facilities, local water resources and local water use. The potential environmental impact of growth is subject to more detailed environmental review at the project level. Project-level EIRs prepared by local decision-makers are subject to an independent determination and disclosure of significant environmental impacts. See FEIR Subsection 8.2.2.2.

Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Even if the Department had the authority to make such decisions at this level of detail, it is not timely or practicable for the Department to analyze each individual decision made by local government that might rely upon increases in SWP water from the proposed project and then to monitor or second-guess each individual decision made by local government or to establish general rules that would govern these decisions. Nor would it meet most, if any, of the objectives of the Monterey Amendment. The Department rejects the idea that it should use its management of the SWP to manage or block future economic growth including housing that would serve the State's growing population. These decisions are within the authority and control of and properly deferred to local decision-makers where specific projects can be more fully described and are ready for detailed analysis. This approach is consistent with the traditional legislative policy that fundamental decisions regarding land use and growth are made through the general planning process at regional and local levels. See FEIR Subsection 8.2.2.2. The Department's role in water reliability planning includes the issuance of the SWP Delivery Reliability Report every two years which informs local decision-makers of water supply limitations of SWP water and is discussed in FEIR Subsection 9.2.6.

As discussed in FEIR Subsection 8.2.2.2, although the Department does not have statutory authorization to establish mandatory requirements regarding water reliability and growth, it supports local and regional water planning and conservation efforts through statewide planning and through grants and local assistance programs. Demand reduction and water conservation strategies are important tools in water management planning and the Department is involved in a number of legislative and administrative actions designed to provide a regional or statewide approach to these strategies. See DEIR pages 11-5 through 11-7. The Department is taking a leadership role and is actively involved in many of these efforts. See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection. As discussed above, such measures are not alternatives to the Monterey Amendment and implementation of such measures would not be affected by the Monterey Amendment. See FEIR Subsection 11.2.4.

## 8.2.1 Methods and Assumptions

Comments questioned the methods and assumptions used in the DEIR analysis to develop population growth and associated growth-inducing impacts.

### 8.2.1.1 Methods

Comments addressed in this Subsection include: 30-57, 30-63, 30-107, 30-108, 30-115, and 30-146.

Section 8.2.1 on pages 8-6 through 8-8 of the DEIR describes the specific methods used for the growth-inducing impact analysis. The method of analysis adopted for the DEIR was to identify M&I contractors that could receive additional average annual deliveries as a result of the proposed project (based on the results contained in Chapter 6 of the DEIR), calculate the

amount of additional average annual deliveries that could be made available to those contractors, and then estimate the population that could be supported by that amount of water.

As discussed on page 6-1 of the DEIR, the Monterey Amendment included provisions which resulted in changes in the allocation of SWP water supplies among contractors and in deliveries to the contractors. These changes are a part of the proposed project and not a consequence of it. Table 6-3 in Chapter 6 of the DEIR lists the articles in the SWP contracts that were modified, added or deleted as a result of the Monterey Amendment and if the change effected SWP operations. Articles which were determined to result in change that could have environmental effects, including those relating to growth-inducing effects, were articles which altered water allocation procedures; transfers and retirements of Table A amounts; and water supply management practices. Since other proposed changes were determined not to result in additional water over that which currently exists under pre-Monterey Amendment contract provisions, they were not included in the growth inducement analysis.

The methods used to determine the effects and the results are presented in detail in Section 6.4 of Chapter 6 in the DEIR.

Tables 6-22 and 6-25 on pages 6-38 and 6-41 of the DEIR show the estimated average annual Table A deliveries and average annual total deliveries to each contractor under 2020 conditions for the proposed project, respectively, and were used to determine the amount of additional water that could be made available. Total deliveries include Table A and Article 21 deliveries. As described on page 8-8 of the DEIR, per capita assumptions for water consumption factors were used to estimate the potential population growth that could be supported by this additional water. GPCPD information was derived for this analysis from *The California Water Plan Update* (Bulletin 160-05). Bulletin 160-05 considered three future water demand scenarios for 2030 and included urban water use and population projections by hydrologic regions in the state. The three water demand scenarios include projections based on trends that are current, less resource intensive, and more resource intensive and, therefore, show upper and lower water use limits. The GPCPD rates were applied to increased average annual Table A and total deliveries for those M&I contractors that could receive a supply increase as a result of the proposed project. These numbers are found in Table 8-3 on page 8-10 of the DEIR. This method used to determine the potential population supportable by the added water supply is consistent with the water demand scenarios used by The California Water Plan.

### 8.2.1.2 Assumptions

Comments addressed in this Subsection include: 16-14, 30-57, 30-63, and 30-107.

As discussed on page 8-6 of the DEIR, a number of conservative assumptions were made, which resulted in over-estimating the potential increase in local population growth associated with the proposed project. These assumptions included:

- M&I contractors that received more water as a result of the proposed project were the only contractors considered in the analysis. Those M&I contractors that received less water as a result of the Monterey Amendment are, to the extent water may be a limiting factor to growth in their service areas, assumed to be able to obtain alternative water supplies. If water was a limiting factor for a contractor and it could not obtain alternative water supplies, that contractor's growth could be limited and the total potential growth impact among all M&I contractors would be less.
- M&I contractors that received an increase in average annual deliveries would allocate the new water to urban growth rather than for other purposes. Some of the

M&I contractors that receive additional SWP water could instead choose to use some or all of it for purposes other than to supply new residents, such as for groundwater overdraft protection or to improve the reliability of their dry-year supplies for existing water users. The EIRs done on the specific transfers support the fact that some of the water was used for groundwater overdraft protection or to improve water reliability for existing users.

- M&I contractors in need of water to support urban growth that would not have received it if the Monterey Amendment had not occurred, might find alternate water sources. In this case, that same growth would have occurred without the proposed project.

These assumptions are conservative because they assume that the total amount of additional water received by the identified M&I contractors would be used to support population growth. As discussed above, that is not likely to occur given past and current contractor behavior. Nevertheless, in order to fully disclose potential growth impacts, the DEIR analysis assumed that all the water would be used to support urban growth. In addition, as discussed on page 8-8, the future year for the DEIR analysis is 2020 while the future year used in Bulletin 160-05 is 2030. It is likely that the population estimates for 2020 would actually be less than those presented in the DEIR which were based on Bulletin 160-05's population projections for 2030. Therefore, the analysis in Chapter 8 of the DEIR represents the maximum range of potential growth. It is likely that the actual population growth and associated impacts discussed would be less.

Clarification of the potential population that could be supported by an increase in dry year water supplies attributed to proposed project implementation, including water from the water supply management practices, are discussed in FEIR Subsection 8.2.4.

### 8.2.2 Scope of the Analysis

Some comments questioned the adequacy of the analysis of the growth-inducing impacts of the proposed project, and the degree to which growth that is attributed to increased population is supported by the additional water made available by implementation of the proposed project. Other comments assert that mitigation of growth impacts is the direct responsibility of the Department and contractors and that the EIR should include alternatives that would reduce impacts caused by growth.

#### 8.2.2.1 Growth-Inducing Impacts of the Proposed Project

Comments addressed in this Subsection include: 6-14, 6-18, 21-39, 21-43, 30-9, 30-57, 30-65, 30-70, 30-107, 30-108, 30-115, 35-6, 35-7, 42-6, 64-3, and 66-24.

As described on page 8-1 of the DEIR, the Department, as the lead agency, is required to discuss the ways the proposed project could affect economic or population growth in the vicinity of the project (CEQA Guidelines Section 15126.2(d)). CEQA does not require that a lead agency make a determination as to whether an increase in population in and of itself is beneficial or detrimental. A lead agency does need to discuss whether that population growth could encourage and facilitate other activities or remove an obstacle to growth (such as construction of new facilities) which could significantly affect the environment. This discussion is included in Chapter 8 Growth-Inducing Impacts of the DEIR.

Each management flexibility and supply reliability provision of the proposed project that had a potential for increasing average annual water deliveries to a contractor was analyzed for its growth-inducing potential. These provisions are categorized as either water supply management practices or altered water allocation procedures and permanent retirements and transfers of Table A amounts.

As a result of the proposed project, the largest increase in water supplies that could potentially support additional growth occurs under average annual conditions. The M&I contractors that received these Table A transfers could receive an increase in average annual deliveries of SWP water even though the average annual deliveries to the other M&I contractors are reduced. Most of this water would be Table A deliveries; a small amount could be Article 21 water when available. M&I contractors that did not purchase increased Table A amounts had a net decrease in Table A deliveries as a result of the proposed project. See page 6-64 in the DEIR for a summary of Monterey Amendment-induced changes on SWP operations and deliveries.

As described on page 8-14 of the DEIR, the growth-inducing analysis concludes that the proposed project could result in additional average annual water supply through average annual Table A deliveries and Article 21 deliveries to several M&I contractors (see Table 8-3 on page 8-10 as revised in FEIR Table 8-3A in Section 8.4 of this FEIR). These contractors include: Napa County FC&WCD, Solano County WA, Alameda County FC&WCD, and Zone 7 in the San Francisco Bay Hydrologic Region; Castaic Lake WA in the South Coast Hydrologic Region; Mojave WA and Palmdale WD in the South Lahontan Hydrologic Region; and Coachella Valley WD and Desert WA in the Colorado River Hydrologic Region. All other M&I contractors would normally receive reduced average annual deliveries of water.

The analysis assumed that all the potential average annual deliveries would result in population growth. As discussed on pages 8-12 through 8-14 of the DEIR and above in FEIR Subsection 8.2.1.2 Assumptions, this analysis provides a conservative over-estimate of both the potential increase in population at the local level and of the resulting range of potential growth impacts that could result from the proposed project.

The DEIR concluded on page 8-8 that although "…use of the water supply management practices could increase the reliability of M&I contractors' water supplies, there would be little effect on average annual deliveries of SWP water." Therefore, these practices would not contribute to growth inducement. In Response to Comments received on the DEIR regarding the growth-inducing impacts of the water supply management practices, and because those practices would primarily provide increased water supplies in dry years, the Department has reviewed the growth-inducing impacts of dry year supply increases from the proposed project, including from the water supply management practices. The Department has concluded that only the water supply management practice of out-of-service-area storage has the ability to provide supplies with sufficient magnitude and reliability to allow an agency to rely on the supply to bridge drought periods and, subject to local policy considerations, rely on withdrawals from storage as part of a supply that would support growth. See FEIR Subsection 8.2.4 for a complete discussion. While this analysis helps to clarify the potential population increase that might result from the Monterey Amendment, it does not change the final conclusion in Chapter 8 of the DEIR that there are potential growth-inducing impacts, that the growth-inducing assumptions are very conservative and overstate the potential for growth inducement, and that analysis of the environmental impacts and mitigation measures is done at the local level.

The DEIR further concludes that increases in population could result in new development that causes adverse impacts to the environment. The types of impacts and potential mitigation measures are common to urban development and they are discussed in DEIR Section 8.2 on

pages 8-11 and 8-12 through 8-14 (as revised in FEIR Section 8.4). Specifically, the DEIR presents on page 8-11 the following:

> The conversion of land to urban uses could result in a variety of different environmental impacts. Land that would be converted to urban uses along transportation routes and on the fringes of existing urban and suburban areas is typically undeveloped or used for agriculture. Conversion to urban uses of agricultural lands removes this land permanently from being available for agricultural production. In addition, conversion of agricultural or undeveloped lands eliminates most of the wildlife habitat value of these lands. Landform and drainage patterns could be altered, with natural drainage channels largely replaced by engineered storm water systems. Impermeable roofs, parking lots, and roadways could replace permeable surfaces with a consequent increase in storm water runoff and a decrease in groundwater recharge. Various substances associated with homes, yards, and vehicle use (paints, pesticides, plasticizers, oil and grease, brake dust, pet wastes, etc) could be deposited on urban surfaces and conveyed to natural waterways. The introduction of people and vehicles into previously unpopulated or lightly populated areas could increase traffic, noise levels, air pollutant emissions, the generation of sanitary wastewater and solid waste, and the demand for local services.

While many of these impacts could be mitigated, some of the impacts may be potentially significant and unavoidable. This conclusion is similar to conclusions found in some of the environmental documents prepared by sellers and buyers of Table A amounts which are discussed on pages 8-4 and 8-5 of the DEIR. Whether or not a specific use of the water would result in an adverse impact and whether or not that impact can be mitigated is determined at the local level as discussed on page 8-14 of the DEIR. Land use decision-making authorities consider the environmental effects of their decisions as a part of the decision-making process. The ability to potentially avoid or substantially lessen some of this potentially significant environmental effect is within the responsibility and jurisdiction of these public agencies, primarily cities and counties. When new developments are proposed, the appropriate level of environmental documentation is prepared pursuant to CEQA. Impacts of growth are analyzed as part of general plan EIRs and/or project-level CEQA documents. Mitigation measures for identified impacts are the responsibility of that local lead agency to enforce and monitor. Such mitigation measures could include, as stated in the DEIR on page 8-14, locating the growth in areas where sensitive resources are absent, minimizing the loss of resources, or replacing any loss. In addition to these measures, federal, State and local governments implement numerous mitigation strategies for specific project impacts such as BMPs to minimize water quality and air emission impacts. While many of the impacts could be mitigated, it is reasonable to assume that some may be significant and unavoidable. If identified impacts cannot be mitigated to a level below the established thresholds, then the local jurisdiction must adopt a statement of overriding considerations when it approves the project.

Although the analysis in the DEIR assumed that all average annual deliveries would support population growth, as discussed on page 8-14 of the DEIR, it is unclear whether increased average annual SWP deliveries would eliminate an obstacle to growth. The proposed project would not improve infrastructure capacity or remove a regulatory constraint that had previously limited growth in the municipal contractor's service areas. It is possible that uncertainty in water supplies could, in and of itself, be considered an obstacle to growth because planners might have limited growth (urbanization) based on water supply availability. If uncertainty was an obstacle to growth, then to the extent that some M&I users increased reliability of water supplies, the obstacle would be reduced or eliminated.

As stated on page 8-15 of the DEIR, neither the Department nor most of the water agencies to which it delivers water make decisions with regard to where and how growth should occur (Yuba

City and the County of Kings do have land use approval authority). Decisions regarding growth are made through the general planning process at regional and local levels. Growth is ultimately controlled by decisions made with respect to individual development proposals at the local level by land use decision-making authorities (such as cities and counties). Decisions to approve and construct urban development projects, in support of increases in population in the service areas of M&I contractors who would receive additional water through average annual deliveries, would be decided by the appropriate local land use decision authorities (not the Department or SWP contractors). Such decisions are based on a wide-range of factors including, but not limited to, availability of water supply. As discussed in the DEIR in Chapter 9, SB 610 and 221 and UWMP requirements have introduced more disclosure and communication on water supply and demand among cities, counties, and water agencies as part of the planning and project approval process. The Department's *State Water Project Delivery Reliability Report* provides information for the contractors, local decision-making entities and others on the reliability of SWP water. See further discussion on local decision-making in FEIR Subsection 8.2.2.2 below and on the reliability of SWP water in Chapter 9 of the DEIR and FEIR Subsections 9.2.4 and 9.2.6.

### 8.2.2.2 Local Impacts

Comments addressed in this Subsection include: 6-15, 19-4, 21-39, 21-40, 21-41, 21-43, 30-9, 30-57, 30-63, 30-107, 30-108, 30-115, 30-146, 35-3, 35-6, 35-7, 62-6, and 66-24.

Some comments suggest that the mitigation of impacts caused by growth-inducement is the direct responsibility of the Department as lead agency preparing this EIR, and that the Department has substantial control over where growth would or should occur. They suggest that the long-term water supply contracts can be amended or that the Department can carry out actions to avoid or minimize growth or even direct the locations, generally or otherwise, to which such growth can occur.

Some of the comments suggest that the Department should go further and analyze in some way all the specific land use planning decisions that have or could rely on SWP water made available as a result of the proposed project, that the EIR should show what amount might go to new development, what amount might be used for increasing dry year reliability and what type of growth (infill or sprawl) might be induced. They cite to specific projects and argue that the Department could find the information to make such an analysis. Some comments also expressed reservations about local governments' abilities to successfully analyze and mitigate impacts caused by growth – pointing to examples of General Plans or specific proposals that have been challenged or found to be inadequate on CEQA or other grounds.

The DEIR took a very conservative approach and assumed that all of the net increases in Table A deliveries resulting from Table A transfers to specific M&I contractors after offsetting decreases due to revised allocation procedures could be growth-inducing in that contractor's area. The FEIR updated some of this information to include potential increases as a result of the water supply management practices (See FEIR Subsection 8.2.4). As noted above, some M&I contractors had a net decrease in Table A deliveries as a result of the proposed project. . The analysis in the DEIR, on pages 8-14 through 8-15, concluded that some of the additional water supply made available by the Monterey Amendment could support additional growth and that increases in population within the contractor's service area can result in new development that causes adverse impacts to the environment that are potentially significant and cannot be avoided. It then identified in a general way, on pages 8-12 and 8-14, certain adverse environmental impacts that could occur from growth-induced impacts and certain mitigation measures that local decision-makers could make that might avoid or minimize project-induced

growth including locating the growth in areas where sensitive resources are absent, minimizing the losses of resources, or replacing any loss. The DEIR concluded on page 8-15, "…neither the Department nor local water supply agencies make local decisions regarding growth and where it will occur. Cities and counties in the contractor service areas affected by the increased population are responsible for considering the environmental effects of their growth and land use planning decisions. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. Where appropriate, they must consider mitigation measures, alternatives and overriding considerations."

Unlike the case in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007)* 40 Cal.4th 412 *or Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182 which dealt with specific development projects, this case is much more similar to the CALFED EIR in *In re Bay-Delta Programmatic EIR Proceedings (2008)* 43 Cal 4th 1143 or *Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351 which dealt with the overall impact of a general decision made by the lead agency which made no commitment to a specific development project approved by local decision-makers. The approach used in the DEIR to analyze growth-inducing impacts of the proposed project is consistent with court decisions such as *Napa Citizens for Honest Government* (pages 369 through 370) which found:

> It follows that an agency cannot avoid the EIR process simply because a project does not itself call for the construction of housing or other facilities that will be needed to support the growth contemplated by the project. It does not follow, however, that an EIR is required to make a detailed analysis of the impacts of a project on housing and growth. Nothing in the Guidelines, or in the cases, requires more than a general analysis of projected growth. The detail required in any particular case necessarily depends on a multitude of factors, including, but not limited to, the nature of the project, the directness or indirectness of the contemplated impact and the ability to forecast the actual effects the project will have on the physical environment. In addition, it is relevant, although by no means determinative, that future effects will themselves require analysis under CEQA.
>
> We also do not believe that EIR review can be avoided simply because the project's effect on growth and housing will be felt outside of the project area. Indeed, the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area. That the effects will be felt outside of the project area, however, is one of the factors that determines the amount of detail required in any discussion. Less detail, for example, would be required where those effects are more indirect than effects felt within the project area, or where it is be difficult to predict them with any accuracy.

CEQA requires an EIR to discuss growth-inducing impacts, but the Guidelines provide that it must not be assumed that growth in any area is necessarily beneficial, detrimental or of little significance to the environment (14 C.C.R. sec. 15126.2(d)). The analysis in this EIR identifies the growth-inducing impacts of the Monterey Amendment and provides valuable information about growth at the contractor service area level to agencies that have express land use control authorities. These agencies may use this information in the future when they may act on specific projects.

While the Department serves as lead agency for this EIR and is making the analysis of the growth-inducing impacts known to the public and to other public agencies, practical considerations prevent the Department from analyzing all site-specific impacts and imposing limitations on the growth that may result from the availability of the water.

First, the growth associated with the project has and will occur over a period of time and the specific location of growth is unknown and all individual projects cannot be identified with enough specificity to be analyzed. Even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, it would be difficult, if not impossible, for the Department to identify all the decisions and then to monitor or second-guess each individual decision made by local government or to establish general rules that would govern these decisions.

Second, changes in the SWP contracts or changes in the operation of the SWP that would direct where and how local development would take place would not meet most, if any, of the objectives of the Monterey Amendment and it would fundamentally change the relationship between the Department and its contractors and among the Department, the contractors and local government. See the discussion of alternatives rejected in FEIR Subsections 11.2.3.2 and 11.2.4.

Third, the Legislature has structured land use regulation in California to occur primarily at the local level. Under the Government Code, cities and counties are the primary land use planning agencies, and operate within a framework of statewide goals and policies. The Planning and Zoning Law, Title 7 of the Government Code beginning with Section 65000, gives cities and counties detailed authorities and procedures to use in regulating growth and exercising other controls over privately owned lands. In a few special areas of the state such as the Tahoe Basin, San Francisco Bay, Suisun Marsh, and the Coastal Zone, regional or state level agencies have been created to oversee land use activities. The Department has been given no similar authorities. If each state agency responsible for functions such as water development, transportation, natural resources and economic development developed its own set of population projections, or used its management responsibility for such functions to pursue its own preferred targets for population growth, state level planning would collapse in confusion. Existing law does not give the Department, through the SWP, authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Legislation would be needed before the Department could exercise such authorities. CEQA by itself does not grant the Department these authorities. CEQA requires the Department to use discretion granted under its existing authority to mitigate or avoid undesirable environmental impacts. For more information on population planning, see Response to Comment 6-15.

Fourth, as stated in Chapter 9 of the DEIR, decisions regarding growth are made through the general planning process at regional and local levels. Growth is ultimately controlled by decisions made with respect to individual development proposals at the local level by land use decision-making authorities (such as cities and counties). Decisions to approve and construct urban development projects in support of increases in population in the service areas of M&I contractors who would receive additional SWP water would be decided by the appropriate local land use decision authorities, not the Department. Such decisions are based on a wide-range of factors including, but not limited to, availability of water supply. SB 610 and 221 and UWMP requirements have introduced more disclosure and communication on water supply and demand among cities, counties, and water agencies as part of the planning and project approval process. The Department's *State Water Project Delivery Reliability Report* provides information for the contractors, local decision-making entities and others on the reliability of SWP water. See further discussion on the reliability of SWP water in Chapter 9 of the DEIR and FEIR Subsections 9.2.4 and 9.2.6.

As discussed in FEIR Section 5.2.3.2, recent legislation has increased the Department's role with regard to water conservation. Water management grants from state agencies to urban water suppliers must be conditioned on the urban water supplier implementing various demand

reduction measures, as determined by the Department. In 2008 and 2009, bills have required, for the first time, that the Department (or any agency) have an enforcement role regarding water conservation and any role in agricultural water conservation. Those bills have not been passed by the Legislature and the Department does not currently have the powers that the bills would have given it. However, the issue of land use planning and urban sprawl is addressed in a bill that did become law - SB 375 (2008) (Steinberg) - which requires development of a sustainable communities strategy to reduce greenhouse gas emissions. Development of the strategy is to be done at the regional level with state oversight. The Department is also involved in this process.

Fifth, because the Department has not been given the land use authority suggested in the comments, the Department has not developed the expertise to prescribe land use controls. The Department believes that mitigation of actual impacts of the growth must be left to local and regional agencies that have the legal authorities and expertise for planning and regulating land use developments. Cities and counties in the contractor service areas affected by the increased population are responsible for considering the environmental effects of their growth and land use planning decisions. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. Where appropriate, they must consider mitigation measures, alternatives and overriding considerations.

Sixth, following the guidance of Section 15126.2(d) in the CEQA Guidelines, the Department does not regard growth as either adverse or beneficial. The Department sees its mission, “To manage the water resources of California in cooperation with other agencies, to benefit the State’s people, and to protect, restore, and enhance the natural and human environments,” as supporting the economy and population in a responsible manner while considering environmental consequences. Both the population and the economy are growing in response to forces outside the control of the Department. In this EIR the Department seeks to identify the growth that may follow from the Monterey Amendment and to provide information useful to the agencies that have authorities to control and shape that growth. The Department rejects the idea that the Department should use its management of the SWP to block future economic growth including housing that will serve the State’s growing population.

In summary, this EIR complies with CEQA by estimating the potential population that could be supported if the proposed project were implemented and by identifying potential impacts and mitigation measures that could result from local development decisions to accommodate that population in general terms. The level of detail contained in the DEIR for growth-inducing impacts and reliability analyses is consistent with the general level of review required for the Monterey Amendment. Even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities, local water resources and local water use. The potential environmental impact of growth is subject to more detailed environmental review at the project level. Project-level EIRs prepared by local decision-makers are subject to an independent determination and disclosure of significant environmental impacts.

Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Even if the Department had the authority to make such decisions at this level of detail, it is not timely or practicable for the Department to analyze each individual decision made by local government that might rely upon increases in SWP water from the proposed project and then to monitor or second-guess each individual decision made by local government or to establish general rules that would govern these decisions. Nor would it meet most, if any, of the objectives of the Monterey Amendment. The Department rejects the idea that it should use its management of

the SWP to manage or block future economic growth including housing that would serve the State's growing population. These decisions are within the authority and control of and properly deferred to local decision-makers where specific projects can be more fully described and are ready for detailed analysis. This approach is consistent with the traditional legislative policy that fundamental decisions regarding land use and growth are made through the general planning process at regional and local levels. The Department's role in water reliability planning includes the issuance of the SWP Delivery Reliability Report every two years which informs local decision-makers of water supply limitations of SWP water and is discussed in FEIR Subsection 9.2.6.

Although the Department does not have statutory authorization to establish mandatory requirements regarding water reliability and growth, it supports local and regional water planning and conservation efforts through statewide planning and through grants and local assistance programs. Demand reduction and water conservation strategies are important tools in water management planning and the Department is involved in a number of legislative and administrative actions designed to provide a regional or statewide approach to these strategies. See DEIR pages 11-5 through 11-7. The Department is taking a leadership role and is actively involved in many of these efforts. See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection. As discussed above, such measures are not alternatives to the Monterey Amendment and implementation of such measures would not be affected by the Monterey Amendment. See FEIR Subsection 11.2.4.

### 8.2.3 Alternatives that Would Reduce Impacts Caused by Growth

Comments addressed in this Subsection include: 6-14 and 6-15.

A couple of comments stated that since alternatives need only meet "most" of the project's basic objectives and that since the project could result in increases in population, the EIR should look at alternatives that the Department can take to lessen or avoid such impacts.

See FEIR Subsection 5.2.3.1 for a summary of the recent California Supreme Court decision in *In re Bay-Delta* reaffirming the rule that an EIR's consideration of alternatives is based on the rule of reason considering the facts and circumstances involved. The focus of the Supreme Court was not on whether a rejected alternative met some or most of the objectives but rather on whether the lead agency has reasonably determined that the rejected alternative cannot achieve the project's underlying fundamental purpose. One of the basic objectives of the Monterey Amendment was to facilitate water supply management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies. A reasonable expectation of meeting that purpose is that some of these measures would be potentially growth inducing. Alternatives that suggested reducing water demand or supply were rejected either because they met few, if any, of the objectives of the proposed project; did not avoid or lessen the proposed project's significant adverse environmental impacts; or were not feasible and implementable in a reasonable period of time. See FEIR Subsections 11.2.3 and 11.2.4. See also FEIR Subsection 8.2.2.2 for a discussion on the Department's responsibility with regard to local land use decision-making.

### 8.2.4 Growth-Inducing Impacts of Water Supply Management Practices

Comments addressed in this Subsection include: 16-14, 21-39, 30-57, 30-63, 30-107, 30-108, 30-112, 30-113, 30-114, 30-146, and 35-3.

Several comments focused on the potential for growth-inducing impacts as a result of the water supply management practices. The comments challenged the conclusion that these practices would have little effect on growth inducement.

DEIR Chapter 8 addressed the potential for growth, and quantified the potential local population that could potentially be supported by the proposed project. For purposes of that analysis, it was assumed that if water supply was a constraint to growth, and if a contractor's increase in water supply due to the proposed project removed a constraint to growth, then the maximum potential local population supported by the proposed project would be based on the assumption that all of the increase in water supply resulting from the proposed project was used to support population growth. As is described in FEIR Subsection 8.2.1.2, and in more detail on page 8-6 of the DEIR, that analysis provides a conservatively high estimate of the potential population supported by the proposed project.

M&I contractors and local land use planning agencies assessing the ability to support new development look at the ability to meet water supply needs both under average conditions and under dry year conditions. As a result of the proposed project, the larger increase in M&I contractor water supplies occurs under average conditions, as shown in DEIR Chapter 6. Therefore, the more conservative (i.e., larger) estimate of the population that could potentially be supported would result from increases in average annual water supply. For this reason, the estimate of increased population growth presented in DEIR Chapter 8 was based on the net estimated increase in average annual deliveries to M&I contractors. That analysis showed the maximum potential local population that could be supported by the proposed project based on the assumption that average annual supplies were a constraint to growth, but dry year supplies were not.

The average water supply conditions analyzed in DEIR Chapter 8 considered all of the provisions of the proposed project, including the water supply management practices. As discussed on page 8-8 of the DEIR it was concluded that, although the water supply management practices could increase the reliability of M&I contractors' water supplies (i.e., increase dry year supplies), there would be little effect on average annual deliveries of SWP water for the reasons described in DEIR Chapter 6, Section 6.4.3. Further, it was assumed that land use planning agencies in the service areas of M&I contractors that received an increase in critical year SWP deliveries but did not receive an increase in their average SWP supplies would be unlikely to approve new development on the basis of increased dry year deliveries alone. Therefore, the supply increases included in the analysis in DEIR Chapter 8 were based on those provisions of the proposed project that could result in a net increase in M&I contractors' average annual SWP supplies, i.e., the altered allocation procedures, Table A retirement, and permanent transfers of Table A among contractors.

In this section, the term "dry year" is used to denote drier than average years and sequences of years, which can include years classified as critical (or critically dry), dry, or below normal as defined for the Sacramento Valley (the source of most Delta inflow) on Page 188 of SWRCB D-1641. Multi-year droughts usually have a mix of dry year types, including some critical years, and the term "dry year" is used to denote those periods when water supply remains below normal and contractors are likely to draw upon stored supplies to augment annual SWP allocations and other supplies available to the contractors. The term "dry year supplies" denotes water that can be drawn upon to augment supply in the dry years. The terms "critical" and "critically dry" refer specifically to those years that are classified as "critical" as defined in D-1641. Years classified as critical form the basis for the dry year analysis below because they represent the most severe case and thus the greatest potential impact on water supplies.

In response to the comments received regarding the growth-inducing impacts of the water supply management practices, and because those practices would primarily provide increased water supplies in dry years, the Department has taken a look at the water supply increases to M&I contractors under dry year conditions, and the local population that could potentially be supported by those dry year supply increases. Information regarding estimated dry year supply increases and potential growth inducement, relying entirely on data from DEIR Chapters 6 and 8, is presented below. This dry year analysis shows the maximum potential local population that could be supported by the proposed project based on the assumption that dry year supplies are the primary constraint to growth, rather than average annual supplies.

The information presented in FEIR Subsections 8.2.4.1 through 8.2.4.5 shows that only the water supply management practice of out-of-service-area storage has the ability to provide supplies with sufficient magnitude and reliability to allow an agency to rely on the supply to bridge drought periods and, subject to local policy considerations, rely on withdrawals from storage as part of a supply that would support growth. In spite of the uncertainties of considering dry year supplies as the primary constraint to growth, this analysis helps clarify the maximum potential for growth inducement under dry year conditions. However, the analysis does not change the final conclusion that there are potential growth-inducing impacts, that the growth-inducing assumptions are very conservative and overstate the potential for growth inducement, and that analysis of the environmental impacts and mitigation measures is done at the local level.

### 8.2.4.1 Storage Outside the Service Area

Storage of SWP water outside of contractors' service areas offers the potential to provide additional deliveries during drought periods or emergency situations where local supplies are reduced. Most of the out-of-service-area groundwater storage developed following the Monterey Amendment has been in Kern County water banks other than the KWB. The KWB primarily provides in-service-area storage for KCWA member agencies. The only water stored in the KWB this is out-of-service-area storage belongs to Dudley Ridge WD. See FEIR Subsection 16.2.11. In each of these groundwater banking programs, operation of the programs, including recharge and extraction of the banked water, is governed by agreements between the bank operators and banking partners, and is constrained by the banking facilities (i.e., local canals, spreading basins, recharge/extraction wells) and, when recharge water is used by the local water districts in lieu of other water, local demand.

Groundwater banking data from Chapter 6 of the DEIR is used for this analysis. Table 6-26 of the DEIR itemizes deliveries to and withdrawals of SWP water from out-of-service-area storage during 1996-2003 pursuant to provisions of the Monterey Amendment. Each of the five M&I contractors that stored water in groundwater banks (Alameda County WD, Alameda County FC&WCD, Zone 7, Santa Clara Valley WD, Castaic Lake WA, and MWDSC) was storing for dry-period reliability and/or emergency purposes. Dudley Ridge WD also banked water supplies in Kern area facilities, but as an agricultural entity is not included in the growth inducement analysis in this section.

As indicated in Note "c" of DEIR Table 6-26 on page 6-56, the amount of banked water that is available for withdrawal by these contractors is the amount of water delivered to storage minus losses. These losses differ by storage program, but are typically on the order of 10 percent of the amount delivered. The amount of water delivered to and recovered from out-of-service area storage from DEIR Table 6-26 is summarized below in FEIR Table 8-1. Assuming 10 percent losses, the balance of the amount stored that is actually available for withdrawal and use by the storing contractors is also shown in FEIR Table 8-1.

**FEIR TABLE 8-1**

**SWP WATER STORED IN OUT-OF-SERVICE AREA GROUNDWATER BANKING PROGRAMS BY M&I CONTRACTORS AND AVAILABLE FOR RECOVERY AS OF 2003 (AF)**

| Contractor | Total SWP Water Delivered to Storage 1996-2003[a] | Losses[b] | Delivered Water Available for Recovery | Water Recovered Through 2003[a] | Storage Balance Available for Recovery as of 2003 |
|---|---|---|---|---|---|
| Alameda County WD | 70,343 | 7,034 | 63,309 | 0 | 63,309 |
| Alameda County FC&WCD, Zone 7 | 73,804 | 7,380 | 66,424 | 1,807 | 64,617 |
| Santa Clara Valley WD | 193,841 | 19,384 | 174,457 | 30,000 | 144,457 |
| Castaic Lake WA[c] | 24,000 | 2,400 | 21,600 | 0 | 21,600 |
| MWDSC[d] | 303,878 | 30,388 | 273,490 | 33,180 | 240,310 |
| **Totals** | **665,866** | **66,586** | **599,280** | **64,987** | **534,293** |

Notes:
a. From Table 6-26 on page 6-56 of the DEIR.
b. Losses differ by storage program but are typically on the order of 10 percent. For analysis purposes here, losses of 10 percent are assumed.
c. The deliveries by Castaic Lake WA shown here were made under a short-term storage agreement. The water Castaic Lake WA stored that is available for recovery may be withdrawn by it within 10 years of the year in which the water was stored (2002).
d. Deliveries and recovery by MWDSC from the Semitropic WSD groundwater banking program are excluded from this summary because this level of MWDSC's participation in the program predated the Monterey Amendment and is considered part of the baseline.

## Assumptions for Withdrawal of Stored Groundwater During a Drought

The Department does not know the rate at which the M&I contractors would seek to withdraw stored water in dry or critically dry years. The rate of withdrawal from the groundwater banks is limited. The amount of stored water that can be withdrawn in a given year by any one contractor depends on the banking program, the number of entities that wish to withdraw water at the same time, their contractual share of capacity in the extraction facilities, SWP supplies allocated to the bank operator for storage returned by exchange, and other local factors specific to each bank. Withdrawal of all of the banked water by the banking partners would require an unknown number of years.

For the purposes of this analysis, the Department assumes that the five M&I banking contractors would rely on an extraction of 20 percent of the banked water in dry and critical years in a drought, based on the premise that a five-year withdrawal schedule should be sufficient to bridge a typical drought. The five-year assumption is based on review of the two major droughts in the period modeled for the EIR, namely the 1929-1934 drought (six years: four critically dry, two dry), and the 1987-1992 drought (also six years: four critically dry, two dry). It is also assumed that the M&I contractors would not begin withdrawals from outside of their service areas until the second year of the drought, tapping less costly supplies locally in the initial year. Thus it is assumed that the M&I contractors would utilize the out-of-service-area banked supplies in years 2 through 6 of a six-year drought.

Recharge water stored by the five M&I contractors was banked primarily in the wetter years of 1996-2000 and 2003. As is discussed further in Section 6.4.3 of the DEIR and in FEIR Subsection 7.2.2.1.3, opportunities for out-of-service area storage of SWP water in the future are likely to be less frequent than occurred between 1996 and 2003. This is because that period was a wetter than normal period and more SWP water in excess of contractors' immediate needs was available than would be available in a more typical sequence of hydrologic years. Further, in the future as demand grows in the M&I contractors' service areas, these contractors will need more of their SWP supply to meet immediate needs and less will be

available for them to store. In addition, the practical effect of new regulatory measures, including new biological opinions, may be to further limit the future availability of water to the M&I contractors to bank to replace the water they withdraw in the next drought.

This analysis includes the maximum potential for banked water to be growth inducing. It is not a reliability analysis. Each storing contractor would do its own analysis in its UWMPs and other assessments regarding the reliability of water that can be banked in out-of-service-area storage and these assessments may conclude that the water should not be used for supporting additional development. See FEIR Subsection 8.2.2.1 for a discussion of local land use decision-making. See also FEIR Subsection 9.2.6 for more discussion on how the Department assesses the reliability of SWP water and the role of the *State Water Project Delivery Reliability Report* with regard to local government assessments of SWP reliability for local purposes.

### 8.2.4.2 Other Water Supply Management Practices

**Article 55, conveyance of non-project water** would have no impact on available supplies to the contractors because it made no change in deliveries. As discussed in Section 6.4.3 of Chapter 6: "Article 55 clarifies the terms and conditions for conveyance of non-project water using SWP facilities but has no effect on deliveries of SWP water. Because the Department is required by the California Water Code to transport water for others in SWP facilities when capacity is available to do so, this provision neither increases nor decreases the contractors' ability to convey non-project water using SWP facilities. Because Article 55 has no effect on SWP deliveries or the use of SWP facilities to deliver non-project water it would have no environmental effects…"

**Extended Carryover** in San Luis Reservoir would provide some added flexibility at the beginning of a dry period, but does not create added water assets during a drought, and would not have any growth-inducing effects. The practice allows wet year water to be held and used later, subject to loss if San Luis Reservoir fills. The amount of water carried over is not predictable, is not replenished during dry periods, and cannot be considered as a firm reliable supply source by any contractor. The water carried over is basically a one-time cushion entering a dry year or drought, and is not reliable for the purposes of approving new development.

**The Turnback Pool** would provide little or no added water supplies to M&I contractors based on the Department's analysis as described in DEIR Chapter 6, Page 6-61. The use of the turnback pool has been declining and although some M&I agencies have gained some benefit from the pool, most of the transfers through the pool have been from M&I agencies to agricultural contractors.

**Flexible storage withdrawals** from Castaic Lake or Lake Perris are one-time loans of water that must be repaid. The flexible storage can bridge a brief period, but does not provide new water unless certain unpredictable conditions allow increased Delta exports to refill the evacuated storage. There is limited water supply reliability associated with the use of flexible storage, and it cannot be relied upon to support the approval of new growth. Its primary benefits accrue to MWDSC, with some benefit to Ventura County FCD and Castaic Lake WA. There would be no change in the average annual water supply available to these contractors with use of the storage. There is also the risk that contract provisions would require repayment of the water during a drought, adversely impacting water supplies. The Department concludes that flexible storage would not facilitate growth.

### 8.2.4.3 Altered Allocation Procedures, Table A Retirement and Transfers

The altered allocation procedures that are a part of the proposed project resulted in a decrease in M&I contractors' dry year SWP water supplies. Some M&I contractors more than offset those losses by purchasing additional Table A supplies relinquished by agricultural contractors as part of the proposed project's 130,000 AF of permanent Table A transfers. Table 6-24 on page 6-40 of the DEIR shows the net average supply increases and decreases in critically dry years under 2020 conditions as a result of the revised allocation methods and Table A retirements and transfers. As is discussed further below, these net supply changes for certain contractors are summarized in FEIR Table 8-2 below.

### 8.2.4.4 Analysis of Growth-Inducing Impacts Based on Dry Year Supplies

Changes in Dry Year Supplies

The changes in critically dry year supplies from Table 6-24 of the DEIR are summarized in FEIR Table 8-2, both for the eight M&I contractors that were recipients of permanent Table A transfers (Napa County FC&WCD, Solano County WA, Coachella Valley WD, Desert WA, Mojave WA, Palmdale WD, Alameda County FC&WCD, Zone 7, and Castaic Lake WA), as well as for the five M&I contractors that stored SWP water outside of their service areas (Alameda County WD, Alameda County FC&WCD, Zone 7, Santa Clara Valley WD, Castaic Lake WA, and MWDSC). Two of these M&I contractors: Alameda County FC&WCD, Zone 7; and Castaic Lake WA, were both recipients of Table A transfers and stored water outside of their service areas.

Of the eight M&I contractors that were recipients of permanent Table A transfers, all but one (Desert WA) show an increase in average critically dry year supplies resulting from the altered allocation procedures and the Table retirements and transfers. For Desert WA, the added dry year supply from its Table A transfer was not enough to offset its reduction in supply resulting from the altered allocation procedures.

Of the five M&I contractors that stored water outside of their service areas, those two contractors that were also recipients of Table A transfers (Alameda County FC&WCD, Zone 7 and Castaic Lake WA) show an increase in average critically dry year supplies resulting from the change in allocation procedures and the Table retirements and transfers, while the remaining three contractors (Alameda County WD, Santa Clara Valley WD, and MWDSC) show a decrease in those supplies. Those contractors that have stored water in out-of-service area storage have the ability to withdraw that water during dry years to offset all or a portion of any losses in SWP dry year supplies resulting from the changes in allocation procedures that are a part of the proposed project. For those three M&I contractors with a decrease in dry year supplies that also have out-of-service-area storage, the change in dry year supply is determined as the net of their decrease in critically dry year supplies resulting from the change in allocation procedures and their available out-of-service-area storage withdrawn over five years. Some of the storing M&I contractors may have banked additional water since 2003, and some may have withdrawn water since that time. This analysis evaluates the situation based on the 2003 banked storage balances.

**FEIR TABLE 8-2**

**AVERAGE CRITICALLY DRY YEAR DELIVERIES WITH BANKED GROUNDWATER WITHDRAWN OVER FIVE YEARS (AF)**

| Contractor | Estimated Average Critically Dry Year Total SWP Delivery Increase or (Decrease), AF/Y[a,b] | Out-of-Service-Area Groundwater Storage Balance as of 2003[c] | One-Fifth of Groundwater Storage to Supplement supply | Net Increase or (Decrease) in Average Critically Dry Year Supplies, AF/Y[b] |
|---|---|---|---|---|
| Napa County FC&WD | 500 | n/a | n/a | 500 |
| Solano County WA | 500 | n/a | n/a | 500 |
| Coachella Valley WD | 1,300 | n/a | n/a | 1,300 |
| Desert WA | (200) | n/a | n/a | (200) |
| Mojave WA | 6,500 | n/a | n/a | 6,500 |
| Palmdale WD | 700 | n/a | n/a | 700 |
| Alameda County WD | (1,400) | 63,309 | 12,660 | 11,260 |
| Alameda County FC&WCD, Zone 7 | 9,700 | 64,617 | 12,920 | 22,620 |
| Santa Clara Valley WD | (3,300)[d] | 144,457 | 28,890 | 25,590 |
| Castaic Lake WA[e] | 12,100 (M&I) | 21,600 | 4,320 | 12,100 |
| MWDSC | (62,500) | 240,310[f] | 48,060 | (14,440) |

Notes:
a. From Table 6-24 on page 6-40 of the DEIR, change in total SWP deliveries (Table A and Article 21 water combined) due to allocation changes, Table A retirements, and transfers under 2020 conditions. For these contractors, there was minimal or no change in Article 21 deliveries in critically dry years, so these changes are almost entirely changes in Table A deliveries.
b. Decreases are shown in ( );
c. From Table 6-26 on page 6-56 of the DEIR, less 10 percent losses and withdrawals, as shown in FEIR Table 8-1.
d. The average critical year SWP delivery decrease shown for Santa Clara Valley WD in Table 6-24 of the EIR is incorrectly shown as 4.3 TAF; the corrected value is 3.3 TAF. The error occurs in column 7 of the table where 32.4 and 1.8 are added to show an incorrect Santa Clara Valley WD subtotal of 33.2 TAF rather than the correct subtotal of 34.2 TAF.
e. The water stored by Castaic Lake WA in an out-of-service area banking program was stored under a short-term agreement, where the stored water is to be withdrawn by it within 10 years of the year in which the water was stored (2002). Since this banked supply is available only through 2012, it is assumed that it would not be available for growth, and the banked supply is excluded from supplies in the last column, Net Increase or (Decrease) in Average Critically Dry Year Supplies. Assumes Castaic Lake WA maintains agricultural deliveries to that portion of its service area.
f. Excludes MWDSC storage in the Semitropic WSD groundwater bank, since this level of MWDSC's participation in the program predated the Monterey Amendment and is considered part of the baseline.

As shown in FEIR Table 8-2 Desert WA and MWDSC have a net decrease in critically dry year water supplies resulting from the proposed project. If dry year supply is a constraint to growth for either of these two contractors, neither could support any additional growth as a result of the proposed project. Therefore, these two contractors are excluded from the remaining dry year supply growth analysis.

In the case of Castaic Lake WA, its current banking agreement with the Semitropic groundwater banking program provides that the water is to be withdrawn within 10 years of its storage in 2002. The analysis here assumes that Castaic Lake WA will withdraw this water by 2012, consistent with its banking agreement and its 2005 UWMP. Therefore, this banked supply is omitted from the remaining growth analysis.

The contractors with a net increase in critically dry year supply could potentially use this increased supply to support additional local growth, depending on how the contractors compute their ability to serve their customers. These supply increases would only result in added growth if dry year supply is a constraint to growth but average annual supply is not. With regard to banked water that has contributed to a net increase in their dry year supplies, if a contractor counts on specific dry year withdrawal rates of the banked water to firm up its total water supply, and grants will-serve letters to its customers for new development based on that firmed-up supply, then the out-of-service-area storage would be potentially growth inducing. Such decisions are exclusively those of each of these M&I contractors and local land use agencies.

## Potential Population Supported by Increased Dry Year Supply

Chapter 8 of the DEIR quantified the potential local increase in population that could be supported under average supply conditions, based on estimated increases in average annual deliveries to M&I contractors attributable to the proposed project. For the purposes of the analysis in Chapter 8 of the DEIR, the entire increase in deliveries was assumed to support additional urban growth in order to evaluate the maximum potential for the proposed project to induce growth. The analysis here under dry year conditions uses the same method for estimating potential population growth as is described in DEIR Section 8.2.1 as revised (see FEIR Section 8.4), including use of the same scenarios and M&I water use rates, except that it is based on critically dry year supplies rather than average annual supplies (see FEIR Table 8-2).

It is important to note that the results of these two analyses are not additive. For a particular M&I contractor, if water supplies under average conditions are a constraint to growth but supplies under dry year conditions are not, then the maximum potential population which could be supported by that contractor would be based on its increase in average annual supplies. Conversely, if a contractor's supplies under dry year conditions are a constraint to growth but supplies under average conditions are not, then maximum potential population which could be supported by that contractor would be based on its increase in dry year supplies. If a contractor's supplies under both average conditions and dry year conditions are a constraint to growth, then the maximum potential population that contractor's increased supplies could support would be based on whichever condition resulted in the smaller increase in supply. Because the Department does not know the degree to which average year supply or dry year supply is a constraint to growth for any of these M&I contractors, for the purposes of this EIR it is assumed that the maximum potential population which could be supported by the proposed project and accompanying growth-inducing impact is based on whichever condition results in the larger population estimate.

The results of the dry year analysis are presented in FEIR Table 8-3, which shows the additional local population that could potentially be supported by the net increase in average critically dry year supplies. The net increase in dry year supplies presented here includes the banked supplies from out-of-service-area storage withdrawn over a five-year dry period, as shown in FEIR Table 8-2.

**FEIR TABLE 8-3**

**POTENTIAL POPULATION IN 2030 SUPPORTED BY ADDITIONAL DRY YEAR SUPPLIES**

| | Additional Deliveries | Potential Population | | |
|---|---|---|---|---|
| **Contractor** | **Net Increase in Average Critically Dry Year Supplies, AF/Y[a]** | **Current Trends** | **Less Resource Intensive** | **More Resource Intensive** |
| Napa County FC&WD | 500 | 3,100 | 3,515 | 2,657 |
| Solano County WA | 500 | 3,100 | 3,515 | 2,657 |
| Coachella Valley WD | 1,300 | 1,405 | 1,592 | 1,319 |
| Mojave WA | 6,500 | 19,088 | 23,880 | 17,638 |
| Palmdale WD | 700 | 2,056 | 2,572 | 1,899 |
| Alameda County WD | 11,260 | 69,808 | 79,152 | 59,835 |
| Alameda County FC&WCD, Zone 7 | 22,620 | 140,235 | 159,007 | 120,201 |
| Santa Clara Valley WD | 25,590 | 158,648 | 179,884 | 135,984 |
| Castaic Lake WA | 12,100 | 56,261 | 66,271 | 52,184 |
| **Total** | **81,070** | **453,700** | **519,387** | **394,375** |

Notes:
a. From FEIR Table 8-2, M&I contractors with a net increase in average critically dry year supplies, based on the net of changes in average critically dry year SWP total deliveries, and for those MI with out-of-service area storage, banked storage balances as of 2003 withdrawn over five years.

Seven of the eight M&I contractors that were recipients of Table A transfers had an increase in both critically dry year water supplies and average annual water supplies (Napa County FC&WCD, Solano County WD, Coachella Valley WD, Mojave WA, Palmdale WD, Alameda County FC&WCD, Zone 7, and Castaic Lake WA). The additional population estimates for these contractors shown in FEIR Table 8-3 which are based on critically dry year water supplies are less than the population estimates based on average annual water supplies presented in Table 8-3 on page 8-10 of the DEIR, as revised (see Table 8-3A in FEIR Section 8.4). Therefore, for these seven contractors, the maximum potential population supported is assumed to occur under average supply conditions, with the maximum potential additional population as shown in DEIR Table 8-3 as revised (see Table 8-3A in FEIR Section 8.4).

In addition to these contractors, two M&I contractors that stored water outside their service areas had a net increase in critically dry year supplies because of their stored water (Alameda County WD and Santa Clara Valley WD). These two contractors were not the recipients of any Table A transfers, had a decrease in average annual supplies due to the change in allocation procedures, and thus were not included in the analysis in DEIR Chapter 8 based on average supply conditions. Therefore, for these two contractors, the maximum potential population supported is assumed to occur under dry year conditions, with the maximum potential additional population as shown in FEIR Table 8-3.

For those contractors with out-of-service-area storage, the potential additional population estimates shown in FEIR Table 8-3 include population based wholly (for Alameda County WD and Santa Clara Valley WD), or in part (for Alameda County FC&WCD and Zone 7), on banked supplies withdrawn over five years. If these contractors assumed that these banked supplies would be withdrawn over a longer period than five years, the dry year deliveries would be less and the growth inducement would be less. If these contractors do not assume using the banked supplies as supporting their ability to serve, but instead treat it as an emergency reserve, there would be no growth-inducing impact beyond that shown in DEIR Table 8-3 as revised (see Section 8.4).

These and other SWP contractors could use additional out-of-service-area storage facilities in the future to support population, should they so choose. However, there would have to be sufficient supplies available to them for banking in order to support that increase. Any projection by the Department of which M&I contractors might implement such banking programs and use that supply to support population is speculative and is not evaluated in this response. If new programs were to be developed, subsequent CEQA analysis would occur.

### 8.2.4.5 Summary

This dry year analysis looks at the water supply increases to M&I contractors under critically dry year conditions, and the local population that could potentially be supported based on those dry year supply increases. The water supply increases included in the analysis were the net increase in a contractor's supply resulting from all of the provisions of the proposed project, including the altered allocation practices, Table A retirements, permanent Table A transfers, and the water supply management practices. The altered allocation procedures resulted in a decrease in M&I contractors' dry year SWP water supplies. Some M&I contractors more than offset those dry year losses by purchasing additional Table A supplies relinquished as part of the proposed project's 130,000 AF of permanent agricultural Table A transfers.

The water supply management practices together provide some additional reliability through more flexible use of SWP facilities and out-of-service-area storage, but the magnitude and

predictability of most benefits are insufficient to support inclusion as part of an agency's quantifiable water supply that can support growth. Only the out-of-service-area storage provision has the ability to provide supplies with sufficient magnitude and reliability to allow an M&I contractor to rely on the supply to bridge drought periods and, subject to local policy considerations, rely on withdrawals from storage as part of a supply that would support growth. To the extent that among the various factors affecting growth, water supply was a constraint to growth, and that an M&I contractor's average annual supply was not a constraint to growth but its dry year supply was, then an increase in that contractor's dry year supply could potentially result in an increase in growth. Stated another way, if water supply was a constraint to growth, any dry year supply increases would only result in added growth if an agency's dry year water supply, rather than its average annual supply, was a constraint to growth. See FEIR Section 8.4 for proposed text changes to DEIR Chapter 8.

The results of the dry year supply analysis show that, for the M&I contractors that were recipients of Table A transfers (Napa County FC&WCD, Solano County WA, Coachella Valley WD, Desert WA, Mojave WA, Palmdale WD, Alameda County FC&WCD, Zone 7, and Castaic Lake WA), the net increase in critically dry year water supplies, and thus the population that could potentially be supported by a supply increase, are less under dry year conditions than under average supply conditions. Therefore, for these contractors, the maximum potential population that could be supported by the proposed project is assumed to occur under average supply conditions as shown in DEIR Table 8-3 (as revised in Table 8-3A in Section 8.4 of this FEIR). In addition to these contractors, two M&I contractors that stored water outside their service areas had a net increase in critically dry year supplies because of their stored water (Alameda County WD and Santa Clara Valley WD). These two contractors were not the recipients of any Table A transfers, had a decrease in average annual supplies due to the change in allocation procedures, and thus were not included in the analysis in DEIR Chapter 8 based on average supply conditions. Therefore, for these two contractors, the maximum potential population that could be supported is assumed to occur under dry year conditions (see FEIR Table 8-3). The proposed project would not contribute increased average annual deliveries or critically dry year deliveries that could support population beyond that listed in these two tables. See FEIR Section 8.4 for all proposed text changes to DEIR Chapter 8.

Although this programmatic analysis helps clarify the maximum potential for growth inducement, it does not change the final conclusion that there are potential growth-inducing impacts, that the growth-inducing assumptions are very conservative and overstate the potential for growth inducement, and that analysis of the environmental impacts and mitigation measures is done at the local level. See FEIR Subsection 8.2.2.1 for a discussion of local land use decision-making. See also FEIR Subsection 9.2.6 for more discussion on how the Department assesses the reliability of SWP water and the role of the *State Water Project Delivery Reliability Report* with regard to local government assessments of SWP reliability for local purposes.

## 8.3 RESPONSES TO INDIVIDUAL COMMENTS

### Response to Comment 6-13

The comment states that the DEIR should provide facts and analysis to support the conclusion that the proposed project would not be expected to have any effect on natural increases or net migration to the State and thus would have no effect on statewide population.

The proposed project would result in a reallocation of existing SWP supplies through altered water allocation procedures, permanent retirements of Table A amounts from agricultural contractors and permanent transfers of Table A amounts from agricultural contractors to M&I

contractors. Primarily as a result of the Table A transfers, as well as from some outside of the service area storage, some M&I contractors could receive an increase in SWP deliveries under average annual or dry-year conditions, while other M&I contractors would receive reduced deliveries. The total of all Table A amounts was reduced by retirement of 45,000 AF of Table A.

Even with the increase in deliveries in some M&I contractors service areas, it is not expected that the proposed project would or could have any effect on either natural birth rates or migration. As described on page 8-6 of the DEIR, natural increases, as a result of births, is the primary contributor to population increases in California and this trend is expected to continue into the future. As further discussed, there is no precise way to determine whether an increase in water supply has a direct correlation with increases in population (the excess of births over deaths). To start with an assumption, such as suggested by the comment, that water allocations under the proposed project would influence individual decisions about natural births and/or immigration into the State would not capture the complexity of factors which contribute to population growth. Individual decisions on births and immigration are driven by numerous factors, including economics, political and religious beliefs and other socio-economic and environmental factors. This conclusion is consistent with Bulletin 160-05 which assumes that while population is one of the factors that influences water demand, population is a factor that can not be directly controlled by water management activities (such as the proposed project).

If, however, increased or more reliable water supplies can support additional growth and contribute to an increase in the population within a contractor service area, the EIR has covered the potential impact by assuming that all the increased water supplies provided to M&I contractors from the proposed project could contribute to growth. As discussed on page 8-6 of the DEIR a number of conservative assumptions were made, which resulted in over-estimating the potential increase in local population growth associated with the proposed project. These assumptions are conservative because they assume that the total amount of additional water received by the identified M&I contractors would be used to support population growth. As the DEIR noted, this scenario is unlikely given past and current contractor behavior. Nevertheless, in order to fully disclose potential growth impacts, the DEIR analysis assumed that all the water would be used to support urban growth.

## Response to Comment 6-14

The comment states that the DEIR fails to adequately explain why some significant and unavoidable impacts associated with new development can not be avoided. The comment further requests that the DEIR explain why potential increases in population can not be lessened or avoided by an alternative to the project. See FEIR Subsections 8.2.2.1 and 8.2.3.

## Response to Comment 6-15

The comment states that "…to the extent that the DEIR is suggesting that the consideration of mitigation measures and alternatives to mitigate the proposed project's growth-inducing impacts is the responsibility of local agencies and not the lead agencies for the proposed project the DEIR is mistaken."

See FEIR Subsections 8.2.2.2 and 8.2.3. To clarify the conclusions of DEIR Chapter 8, the following change is made on page 8-15, first and second paragraphs:

> <u>As compared to baseline conditions, the potential exists for the proposed project to have an adverse impact as a result of growth-inducement.</u> Increases in population can result in new development that causes the adverse impacts to the environment <u>described in</u>

this Chapter. This study concludes that some of the impacts are potentially significant and some cannot be avoided. This conclusion is similar to conclusions found in some of the environmental documents prepared by sellers and buyers of Table A water. The types of impacts and potential mitigation measures are discussed in Section 8.2 and are common to urban development projects.

~~Neither the Department nor local water supply agencies make local decisions regarding growth and where it will occur.~~ Cities and counties in the contractor service areas affected by the increased population are responsible for making fundamental decisions about land use and growth and considering the environmental effects of their growth and land use planning decisions. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. Where appropriate, they must consider mitigations measures, alternatives and overriding considerations.

Mitigation Measures

The ability to make changes or alternations that could potentially avoid or substantially lessen some of this potentially significant environmental effect is within the responsibility and jurisdiction of other public agencies, primarily cities and counties and such changes have been adopted by such other agencies or can and should be adopted by such other agencies. Neither the Department nor most local water supply agencies have authority to make local decisions regarding growth and where it will occur. The Department does not have the ability or the authority to identify and monitor or regulate land use decisions made by local government or to establish general rules that would govern these decisions. These decisions are within the authority and jurisdiction and properly deferred to local decision-makers, such as cities and counties, where specific projects can be more fully described and are ready for detailed analysis and appropriate mitigation measures. In addition to measures imposed by local decision-makers, federal, State and local governments implement numerous mitigation strategies for specific project impacts such as Best Management Practices (BMPs) to minimize water quality and air emission impacts. The Department also issues the SWP Delivery Reliability Report every two years which informs local decision-makers of water supply limitations of SWP water.

## Response to Comment 6-18

The comment states that the DEIR has failed to adequately explain why some significant and unavoidable cumulative impacts associated with new development can not be avoided. See FEIR Subsection 8.2.2.1.

## Response to Comment 16-14

The comment questions the accuracy of the methodology used to derive the population estimates, specifically, the GPCPD rates, use of the appropriate hydrologic regions and accuracy of the information presented in Table 8-2 on page 8-9 of the DEIR. In response, the Department Water Use Section, which is responsible for developing water use estimates for the Bulletin 160 series, reviewed the methodology used to calculate potential population attributed to the proposed project presented in DEIR Chapter 8, Growth-Inducing Impacts. As a result, to clarify the methodology and refine the data used to estimate population and to refine the results and conclusions in DEIR Subsection - Methods for Estimating Population Growth on pages 8-8 and 8-9, 8.2.2 Results of the Analysis on pages 8-9 through 8-12, and Section 8.3 Discussion

and Conclusions on pages 8-12 through 8-15 were revised and are presented in FEIR Section 8.4.

The comment states that the analysis uses GPCD rates from Bulletin 160-05 future water demand scenarios in a manner that is inconsistent with the assumptions for those scenarios. Specifically, the Current Trends and the Less Resource Intensive scenarios are defined as including the same population projection. The comment also discusses that the Less Resource Intensive demand scenario has a lower per capita rate because it assumes densification of development and increased lower water using industries. Further that under this demand scenario the saved water would be used for environmental purposes, and not to support population. The comment concludes that because the population for the Current Trends and Less Resource Intensive scenarios should be identical that the different population estimates for the Less Resource Intensive scenario should be deleted.

As noted above, the Department Water Use Section reviewed the methodology used to estimate population. The comment is correct that the population for the Current Trends and Less Resource Intensive demand scenarios is the same for all of the hydrologic regions. However, as noted in the comment, the total urban water use is not the same under each of these demand scenarios. Under the Current Trends demand scenario, current water demand trends continue. Under the Less Resource Intensive demand scenario the economy continues to grow (higher agricultural and industrial production) with more environmentally protective policies (more environmental water dedication and higher conservation) compared to the Current Trends demand scenario. As a result, the Less Resource Intensive demand scenario results in less urban water use when compared to Current Trends and; therefore, a lower GPCD than the Current Trends demand scenario ([total urban water use (thousand AF) *325,851*1,000]/[population]*365). Under the More Resource Intensive demand scenario higher population growth and urban and agricultural production is assumed with environmentally protective measures not taking priority for water management decisions. As a result, higher population assumptions and higher urban water use assumptions result in higher GPCD when compared to the Current Trends and Less Resource Intensive demand scenarios. See revised Table 8-2 in FEIR Section 8.4. See also FEIR Subsection 8.2.1.2 for a discussion of assumptions used in the analysis.

Table 8-2 of the DEIR was revised to reflect revised population and GPCD information for the More Resource Intensive demand scenario and to reflect the correct hydrologic regions for each of the contractors as requested by the comment (see revised Table 8-2 in FEIR Section 8.4).

In order to clarify the potential population that could be supported by the proposed project, the refined GPCD rates were applied to the additional Table A and Table A and Article 21 deliveries for each of the demand scenarios. For the purposes of the EIR growth-inducing analysis, it is assumed that all the additional water supplies would go to support population. The refined population estimates are presented in Table 8-3A in FEIR Section 8.4. In addition, the same GPCD rates were applied to estimate potential population supported that could be supported by dry year deliveries (supplemental drought supplies) and that data is presented in Table 8-3B (please see also FEIR Subsection 8.2.4 for further discussion). The total population that could be supported by the proposed project (Table 8-3A and Table 8-3B) is presented in Table 8-3C in FEIR Section 8.4. The result is that the total population estimates that could be supported by the proposed project are higher, depending on the future demand scenario; however, these refinements do not change the results or the conclusions of the DEIR presented in Subsection 8.3.4 Conclusions, as refined in FEIR Section 8.4.

## Response to Comment 16-98

The comment requests that text be added to the second sentence of the first paragraph on page 8-6 of the DEIR that was inadvertently left out. The second sentence in the first paragraph on page 8-6 of the DEIR is revised to read as follows:

> … There is no precise way to determine whether an increase in water supply, an expansion of water delivery systems, or a transfer of water between areas directly or indirectly induces growth. Furthermore, population growth is influenced by a host of complex factors. At the statewide and regional levels, growth is principally the result of the natural increase in the population – the excess of births over deaths. …

## Response to Comment 16-99

The comment requests that the text of the first sentence in the third paragraph on page 8-6 of the DEIR be revised to use the term "potentially attributed to" The first sentence in the third paragraph on page 8-6 of the DEIR is revised to read as follows:

> In the analysis, a number of conservative assumptions are made, which result in over-estimating the potential ~~increase in~~ local population growth ~~associated with the~~ potentially attributable to the proposed project. …

## Response to Comment 19-4

The comment states that the DEIR does not provide detailed disclosure of growth impacts and does not agree that the mitigation of growth-inducing impacts is the responsibility of local agencies. See FEIR Subsection 8.2.2.2.

## Response to Comment 21-39

The comment states that data on potential population growth from the original 1995 Monterey EIR should be removed or clearly marked erroneous. Chapter 8 of the DEIR includes a discussion in Subsection 8.1.2 which is titled "*Summary of Growth Analyses in Previous CEQA Documents."* This section summarizes the growth-inducing impacts identified in the 1995 Monterey Agreement EIR (the subject of this comment) and in CEQA documents prepared for Table A transfers which have been approved (or are under consideration for approval) consistent with the provisions of the Monterey Amendment. These discussions on the growth-inducing impacts identified in the 1995 Monterey Agreement EIR and the CEQA Table A transfers were provided for background and information only. While the numbers from these analyses differ from those in the analysis found in Section 8.2.2 on page 8-10, the trend and general conclusions are the same in all documents.

DEIR Table 8-3 on page 8-10, as revised (see FEIR Section 8.4), identifies the population which could be supported by the proposed project. Potential growth-inducing impacts of the proposed project are discussed under Section 8.3 on pages 8-12 through 8-15 of the DEIR. See also FEIR Subsections 8.2.2.1 and 8.2.2.2.

## Response to Comment 21-40

The comment notes that the proposed project has facilitated massive urban sprawl in Southern California that relies on SWP water that can not be reliably delivered. See FEIR Subsection 8.2.2.2.

## Response to Comment 21-41

The comment notes that the Department can not allow other agencies to determine whether transfers will be growth-inducing. See FEIR Subsection 8.2.2.2.

## Response to Comment 21-42

The comment states that the DEIR mischaracterizes one of the transfers of Table A amounts discussed on Table 8-1 on pages 8-3 through 8-5 of the DEIR as non-growth inducing because the water would be used to meet planned population growth and development objectives specified in General Plans. DEIR Table 8-1 summarizes the conclusions of CEQA documents that were prepared by others for the transfers noted. As stated on page 8-2, these discussions on the growth-inducing impacts identified in the Table 8-1 were provided for background and information only and were not intended to be the Department's growth-inducing analysis for the proposed project. As a Responsible Agency, not lead agency, for the CEQA documents prepared for those Table A transfers, the Department adopted separate Notices of Determination that concurred with the lead agency (SWP Contractors) findings.

The Department did do a separate and independent analysis of growth-inducing impacts associated with implementation of the proposed project at a programmatic level. That analysis which can be found in Chapter 8 of the DEIR, as revised (see FEIR Section 8.4), took the most conservative view and assumed that all of the net increase in water supplies provided to an M&I contractor from the proposed project, primarily from Table A transfers after offsetting supply decreases resulting from revised allocation procedures would support additional growth.

## Response to Comment 21-43

The comment states that the DEIR did not provide adequate explanations as to why the estimated growth-inducing impacts are conservative. See FEIR Subsections 8.2.2.1 and 8.2.2.2.

## Response to Comment 30-9

The comment states that the DEIR evades the "common-sense notion that land use decisions are appropriately predicated in some large part of the availability of water; and therefore, avoids analyzing the project's contribution to growth and its associated environmental impacts." See FEIR Subsections 8.2.2.1 and 8.2.2.2.

## Response to Comment 30-57

The comment states that the DEIR fails to adequately evaluate growth-inducing impacts and defers the responsibility to analyze them. See FEIR Subsections 8.2.1.1, 8.2.1.2, 8.2.2.1, 8.2.2.2, and 8.2.4. See also FEIR Subsection 5.2.1.2 on whether the Monterey Amendment resulted in fundamental changes to the SWP long-term water supply contracts, FEIR Subsection 9.2.5 on the elimination of Articles 18(b) and 21(g)(1), FEIR Subsection 13.2.2 on changes in Article 18(a), FEIR Subsection 14.2.5 on Monterey-induced changes to Article 21, FEIR Subsections 15.2.2., 15.2.3, and 11.2.4 on issues relating to reduced demand and impact on the Delta and upstream operations, and 16.2.5 for impacts of the KWB.

## Response to Comment 30-63

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-63 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments a discussion at a Monterey Plus EIR Committee meeting of the proposed approach to analyzing growth-inducing impacts. The DEIR includes two chapters dealing with the issues raised in this comment – Chapter 8, Growth-Inducing Impacts and Chapter 9, Reliability of Water Supplies and Growth. The Brooking Institute Study was not used in either of these analyses or the findings of the DEIR. FEIR Section 8.2 provides more information and clarification of the growth-inducing aspects of the proposed project.

FEIR Subsection 8.2.1.1 above describes the methods and assumptions used for the growth-inducing impact analysis in Chapter 8 of the DEIR. As discussed in FEIR Subsection 8.2.1.1 and on pages 8-6 through 8-11 of the DEIR, and in FEIR Subsection 8.2.4, some M&I contractors could receive an increase in SWP deliveries under average annual or dry years conditions, while other M&I contractors receive decreased Table A deliveries. The method of analysis adopted for the DEIR was to identify M&I contractors that could receive additional water as a result of the proposed project (based on the results contained in Chapter 6 of the DEIR), and for those contractors, calculate the amount of additional water that could be made available and then estimate the population that could be supported by that amount of water. The results of that analysis are presented in DEIR Table 8-3 and are revised in FEIR Section 8.4. The method used to determine potential population growth in the DEIR is consistent with the water demand scenarios used by The California Water Plan. Please see FEIR Subsection 8.2.1.2 for further discussion of the assumptions used in the DEIR Chapter 8 growth-inducement analysis.

See FEIR Subsection 8.2.2.2 for a discussion on the Department's responsibility with regard to local land use decision-making. The Department's role in water reliability planning is discussed in FEIR 9.2.6.

## Response to Comment 30-65

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-65 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a discussion at a Monterey Plus EIR Committee meeting of the proposed approach to analyzing growth-inducing impacts. The DEIR

includes two chapters dealing with the issues raised in this comment – Chapter 8, Growth-Inducing Impacts and Chapter 9, Reliability of Water Supplies and Growth. See also Response to Comment 30-63.

## Response to Comment 30-67

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-67 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a discussion at a Monterey Plus EIR Committee meeting of the proposed approach to analyzing growth-inducing impacts. The DEIR includes two chapters dealing with the issues raised in this comment – Chapter 8, Growth-Inducing Impacts and Chapter 9, Reliability of Water Supplies and Growth. See also Response to Comment 30-63.

## Response to Comment 30-69

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-69 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the study by Brookings Institute. The DEIR includes two chapters dealing with the issues raised in this comment – Chapter 8, Growth-Inducing Impacts and Chapter 9, Reliability of Water Supplies and Growth. The Brooking Institute Study was not used in either of these analyses or the findings included in the DEIR. See also Response to Comment 30-63.

## Response to Comment 30-70

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-70 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in November 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an initial discussion paper which presented a draft approach to analyzing growth-inducing impacts for the consideration of the

Monterey Plus EIR Committee. The DEIR includes two chapters dealing with the issues raised in this comment – Chapter 8, Growth-Inducing Impacts and Chapter 9, Reliability of Water Supplies and Growth. See also Response to Comment 30-63. See also FEIR Subsection 8.2.2.1.

## Response to Comment 30-78

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-78 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on what the commenter perceived as a lack of progress on the approach to analyzing growth-inducing impacts despite recurrent discussion and critique through the EIR Committee process. The DEIR includes two chapters dealing with the issues raised in this comment – Chapter 8, Growth-Inducing Impacts and Chapter 9, Reliability of Water Supplies and Growth.

The comment presents two past approaches: using the Brookings Institution Survey and depending on the general plan stage. Neither approach was ultimately used to evaluate growth-inducing impacts of the proposed project (see also Responses to Comments 30-63 and 30-69). Please refer to Chapter 8 Growth-Inducing Impacts of the DEIR. The comment also raises a concern that the approach to growth analysis (at that time) was not adequate to address CEQA standards and that the proposed analysis did not consider growth accommodation. The Department considers the analysis in Chapter 8 of the DEIR to be consistent with CEQA standards. See also FEIR Section 8.2 which includes the master response for growth-inducing impacts and FEIR Chapter 9 which includes the topic of water reliability and growth.

## Response to Comment 30-107

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-107 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a proposed approach to analyzing growth-inducing impacts. The interim document requested that substantial revisions be made to the draft growth-inducing analysis to reflect the potential for population increases and associated growth-inducement impacts. The DEIR includes two chapters dealing with the issues raised in this comment – Chapter 8, Growth-Inducing Impacts and Chapter 9, Reliability of Water Supplies and Growth. See also FEIR Section 8.2 which includes the master response for growth-inducing impacts and FEIR Chapter 9 which includes the topic of water reliability and growth.

The comment expresses concern that the Department might take a position that the Monterey Amendments simply clarified existing practices and induced little growth and states that the DEIR must adequately consider the growth impacts fostered by permanent transfers. FEIR Subsection 8.2.1.1 describes the methods and assumptions used for the growth-inducing analysis in Chapter 8 of the DEIR. The discussion points out that the DEIR assumes for those M&I contractors with an increase in average annual deliveries resulting from the proposed project that all of that additional water could contribute to increased growth. As discussed further in FEIR Subsection 8.2.4, the analysis in DEIR Chapter 8 is based on average annual conditions, which are the conditions that result in the larger increase in supplies for those contractors with a net supply increase. Those provisions of the proposed project that could result in a net increase in M&I contractors' average deliveries are the altered allocation procedures, permanent Table A retirements, and permanent Table A transfers from agricultural to M&I contractors.

The comment expresses reservations regarding the analytical methods used by the Department and states that the Department must include a review of water deliveries and transfers in the historical record, a probing statistical analysis and an assessment of potential future trends in water management under the Monterey Amendments. Chapter 6 of the DEIR discusses the methods used to analyze the altered water allocation procedures and Table A retirements and transfers and the methods used to analyze the water supply management practices. These methods included an analysis using historical trends, a modified modeling analysis and an assessment of future trends. Please see Chapter 6 of the DEIR and Chapter 6 of this FEIR on Methods for a discussion of these methods and any limitations associated with them.

This comment and Comment 30-108 identify a number of water supply management practices in addition to altered water allocation procedures and permanent transfers that could be considered as inducing growth. The growth-inducing impacts of the proposed project under dry-year conditions, including the impacts of the water supply management practices, are analyzed in Subsection 8.2.4 of this FEIR.

The comment also stated that some of these measures could increase Delta exports. The DEIR analyzes the impact of these measures on the Delta and concludes that the altered allocation procedures and permanent transfers would not result in increases in Delta exports but that some of the water supply management measures could result in increases in Delta exports consistent with regulatory permits in place at the time. These impacts and future trends are discussed in Section 7.1 Surface Water Hydrology, Water Quality and Water Supply and Section 7.3 Fisheries of the DEIR, and in FEIR Section 7.2 Fisheries and FEIR Chapter 15, Water Supply Management Practices.

The comment also states that the DEIR should discuss the level of Table A transfers that could occur in the future with and without the Monterey Amendment. Table A transfers under the Monterey Amendment and their potential impacts are discussed in Chapters 6 and 7 of the DEIR. While it is difficult to determine what might have occurred in the absence of the Monterey Amendment, the DEIR includes four No-Project alternatives and one project alternative that consider possible scenarios. See also the discussion in Chapter 11 Alternatives of this FEIR. Section 2.5.2 in the DEIR discussed approvals of transfers and water supply management practices that occurred prior to implementation of the Monterey Amendment. There have been several transfers approved outside of the Monterey Amendment since it was implemented. These transfers have been publicly noticed as required by Attachment C of the Settlement Agreement.

As discussed in FEIR Subsections 8.2.2.1 and 8.2.4.5, although a project may have growth-inducing potential, as discussed on page 8-14 of the DEIR, it is unclear whether in certain areas increased SWP deliveries under either average annual or dry year conditions would eliminate an obstacle to growth. The proposed project would not improve infrastructure capacity or remove a regulatory constraint that had previously limited growth in the municipal contractor's service areas. It is possible that uncertainty in water supplies could, in and of itself, be considered an obstacle to growth because local land use planning agencies may approve limited growth (urbanization) based on water supply availability. If uncertainty was an obstacle to growth, then to the extent that some M&I users increased reliability of water supplies, the obstacle would be reduced or eliminated. As discussed on page 8-6 of the DEIR and in FEIR Subsections 8.2.1.2, 8.2.2.2, and 8.2.4 a number of conservative assumptions were made, which resulted in over-estimating the potential increase in local population growth associated with the proposed project. These assumptions are conservative because they assume that the total amount of additional water received by the identified M&I contractors would be used to support population growth which is unlikely given past and current contractor behavior. Nevertheless, in order to fully disclose potential growth impacts at a programmatic level, the DEIR analysis assumed that all the water would be used to support urban growth. See also FEIR Section 8.4 for text changes to DEIR Chapter 8, specifically, revised Tables 8-3A and 8-3B.

Please see FEIR Subsections 8.2.2.1 and 8.2.2.2 for a discussion of the Department's responsibility with regard to local land use planning. See also Responses to Comments 30-115 and 30-146.

## Response to Comment 30-108

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-108 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document notes that recent Department activities and SWP contractor documents provide evidence that the proposed project has the potential for growth inducement and associated impacts. The interim letter requested that substantial revisions be made to the draft growth-inducing analysis to reflect the potential for population increases and associated growth-inducement impacts. The DEIR includes two chapters dealing with the issues raised in this comment – Chapter 8, Growth-Inducing Impacts and Chapter 9, Reliability of Water Supplies and Growth. See also FEIR Section 8.2 which includes the master response for growth-inducing impacts and FEIR Chapter 9 which includes the topic of water reliability and growth.

See Response to Comment 30-107 and FEIR Subsections 8.2.1.1, 8.2.2.1, 8.2.2.2 and 8.2.4.

## Response to Comment 30-112

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and

four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-112 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document suggests that Turn-back pool deliveries should be accounted for in the growth and environmental impact analysis.

The information presented in FEIR Subsection 8.2.4 shows that only the water supply management practice of out-of-service-area storage has the ability to provide supplies with sufficient magnitude and reliability to allow an agency to rely on the supply to bridge drought periods and, subject to local policy considerations, rely on withdrawals from storage as part of a supply that would support growth.

See also Response to Comment 30-112 in FEIR Chapter 15.

## Response to Comment 30-113

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-113 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the growth inducement analysis chapter of the DEIR, specifically the descriptions of the carryover storage and growth inducement. The information presented in FEIR Subsection 8.2.4 shows that only the water supply management practice of out-of-service-area storage has the ability to provide supplies with sufficient magnitude and reliability to allow an agency to rely on the supply to bridge drought periods and, subject to local policy considerations, rely on withdrawals from storage as part of a supply that would support growth.

See also Response to Comment 30-113 in FEIR Chapter 15.

## Response to Comment 30-114

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-114 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the growth inducement analysis chapter of the DEIR, specifically the descriptions of the impacts of the proposed project ton the Delta and growth inducement. The information presented in FEIR Subsection 8.2.4 shows that

only the water supply management practice of out-of-service-area storage has the ability to provide supplies with sufficient magnitude and reliability to allow an agency to rely on the supply to bridge drought periods and, subject to local policy considerations, rely on withdrawals from storage as part of a supply that would support growth. MWD's use of the water supply management practices is analyzed in FEIR Subsection 8.2.4.4.

See also Response to Comment 30-114 in FEIR Chapter 15.

## Response to Comment 30-115

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-115 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document requested that substantial revisions be made to the draft growth-inducing analysis to reflect the potential for population increases and associated growth-inducement impacts. The DEIR includes two chapters dealing with the issues raised in this comment – Chapter 8, Growth-Inducing Impacts and Chapter 9, Reliability of Water Supplies and Growth. See also FEIR Section 8.2 which includes the master response for growth-inducing impacts and FEIR Chapter 9 which includes the topic of water reliability and growth.

This comment suggests that the Department should include a comparison, in the EIR, of water use efficiencies in different parts of the state because, according to the comment, "as the state decides how to allocate limited water resources to a range of purposes (supply, reliability, environment and recreation, for instance) water use efficiency affects its [the state's] ability to balance these important purposes." The Monterey Amendment addresses how certain SWP supplies should be allocated and where SWP water may be delivered. In a process unaffected by the Monterey Amendment, the department determines the total SWP supply available for delivery to contractors. The Department then applies current contract provisions (including Monterey Amendment changes) to allocate that supply among its contractors. However, the Department does not make decisions about how the contractors use that water. Please see FEIR Subsection 8.2.2.1. See FEIR Subsection 8.2.2.2 for a discussion on the Department's responsibility with regard to local land use decision-making. See Response to Comment 30-115 in FEIR Chapter 9 for more on the Department's role in water reliability planning.

The Department agrees that water use efficiency may be relevant in some instances when state or federal agencies are making decisions about allocating water for different purposes or beneficial use and there are regulatory, administrative and legal forums that deal with these questions. These processes are discussed in FEIR Subsection 5.2.3.2, regarding the relationship of the proposed project to other water policy actions.

The comment also suggests that the Department use per capita water use data for the growth-inducing impact analysis derived from new and recent growth, rather than overall average per capita water use. The Department used regional per capita demand information from Bulletin 160 - 05 that are regionally specific, rather than a single rate for the entire state. The Department also used a range of resource intensity usage rates to display the potential ranges in water use rates within those specific regions in response to evolving conservation goals. For

further information see DEIR Section 8.2 on pages 8-6 through 8-9, as revised (see FEIR Section 8.4). See also FEIR Subsection 8.2.1.1 for further discussion of methods used in the DEIR.

See also Responses to Comments 30-107 and 30-146.

This comment raises questions about the use of CALSIM in the DEIR. The use of CALSIM, including for the purposes of the growth inducement analysis, is discussed in FEIR Section 6.3. See also Response to Comment 30-115 in FEIR Chapter 6.3.

See FEIR Chapter 13 on Article 18 for a discussion of the allocation change and its effects on M&I supplies (especially Subsection 13.2.4) and FEIR Chapter 9 for a discussion of the Urban Water Management Plans and the issue of "paper water" (especially Subsections 9.2.4 and 9.2.6).

See also Response to Comment 30-115 in FEIR Chapters 9 and 13.

## Response to Comment 30-146

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-146 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document asserts that the DEIR must differentiate between the impacts of water deliveries that stimulate new growth and the impacts of water deliveries used to enhance dry year reliability. The comment further specifies that the growth-inducing analysis must include an analysis of how, where and for what purpose water made available under the proposed project has been and will be put to use.

See FEIR Subsection 8.2.1.1 for a description of the methods and assumptions used for the growth-inducing analysis in Chapter 8 of the DEIR. See FEIR Subsection 8.2.4 for an analysis of the potential for growth that could result from an increase in dry year supplies, including form the water supply management practices. See FEIR Section 8.4 for updates to the DEIR analysis of the potential for growth that could result from an increase in average annual supplies. This and other comments ask the Department to analyze specific examples of decisions or legal challenges made at the local level. See FEIR Subsection 8.2.2.2 for a discussion on the Department's responsibility with regard to local land use decision-making. The Department's role in water reliability planning is discussed in FEIR 9.2.6.

The comment also states that the analysis must include the growth-inducing implications of eliminating Article 21(g)(1) of the original contracts, facilitating transfers between agricultural and urban contractors, conveying non-project water, providing increased access to Article 21 to urban contractors, allowing storage outside of the service area, implementing the turn-back pool and transferring the KWB to local control. The elimination of Article 21(g)(1) is discussed in FEIR Subsection 9.2.5.2. The rest of the issues listed relating to water supply management practices are discussed in the master response in this FEIR Chapter 8. The transfer of the KWB, itself, did not have any impacts on growth. The development and use of other

groundwater banking programs in Kern County for storage outside the service area by M&I contractors provides the storage supporting dry year extractions which is discussed and analyzed in Subsection 8.2.4. Use of the KWB for agricultural uses would not be growth inducing. See FEIR Chapter 17, Kern Water Bank for more information on the KWB transfer.

See also Response to Comment 30-107 and Comment 30-115.

## Response to Comment 35-3

The comment notes that transfers allowed under the proposed project provided more reliable water to support development. The growth-inducing impacts of the Castaic Lake WA supplemental water project transfer of 41,000 AF of SWP Table A amount were evaluated in the *Castaic Lake WA Supplemental Water Project Transfer of 41,000 Acre-Feet of State Water Project Table A Amount Final Environmental Impact Report*, December 2004 SCH #1998041127. See also FEIR Subsection 5.2.1.4 for a discussion of Kern-Castaic transfer in the DEIR. The EIR concludes that growth could occur as a result of the water supplied. The Castaic EIR is currently the subject of litigation, but the fact that growth could occur is not in dispute. That conclusion is included in the DEIR on this project (see Table 8-1 on page 8-5 of the DEIR). The analysis in the DEIR showed that Castaic's 41,000 acre-foot Table A transfer, after offsetting supply reductions due to the altered water allocation procedures, could result in an average annual increase in Table a deliveries of 31,700 AF, and in Article 21 water of 800 AF. The analysis assumed that all of this supply increase could be growth-inducing and the potential population increases that could be supported are identified in DEIR Table 8-3 on page 8-10 and as revised in FEIR Section 8.4.

The role of the water Castaic Lake WA banked in the Semitropic program is addressed in more detail in FEIR Subsection 8.2.4. The CLWA-Semitropic banking agreement is limited to 10 years, after which time the water must be withdrawn. It was not considered to be a dry year supply for Castaic Lake WA because of the 10-year limitation.

This and other comments point to specific examples of decisions or legal challenges to decisions based on what it considers inappropriate analyses of reliability of SWP supplies at the local level. See FEIR Subsection 8.2.2.2 for a discussion on the Department's responsibility with regard to local land use decision-making. The Department's role in water reliability planning is discussed in FEIR 9.2.6. The effect of the Article 18 allocation change is discussed more fully in this FEIR in Chapter 13, Subsection 13.2.4 Article 18(a) and Reliability of M&I Contractor Deliveries.

See also Response to Comment 35-3 in FEIR Chapters 14 and 15.

## Response to Comment 35-5

The comment states that CLWA took Article 21 water for storage which in turn produced growth impacts to the Santa Clarita Valley. In addition, the comment states that the DEIR states that eliminating Article 18(b) would have no effect on growth inducement. See Response to Comment 35-3 for a discussion of the amount of additional Table A and Article 21 water that could be delivered to CLWA and its growth-inducing impacts.

See also the Response to Comment 35-5 in FEIR Chapters 9 and 13.

## Response to Comment 35-6

The comment lists development projects that have been approved in the Santa Clarita Valley. See Response to Comment 35-3. Decisions to develop projects in the Santa Clarita Valley were decisions made by the local land use decision authorities based on a wide-range of factors See FEIR Subsection 8.2.2.1 for a discussion of the growth-inducing impacts of the proposed project. See FEIR subsection 8.2.2.2 for a discussion on the Department's responsibility with regard to local land use decision-making. The Department's role in water reliability planning is discussed in FEIR 9.2.6.

## Response to Comment 35-7

The comment states that the proposed project would result in growth-inducing impacts on the Santa Clarita Valley by enabling urban development. See Response to Comment 35-3. See FEIR Subsection 8.2.2.1 for a discussion of the growth-inducing impacts of the proposed project. See FEIR Subsection 8.2.2.2 for a discussion on the Department's responsibility with regard to local land use decision-making. The Department's role in water reliability planning is discussed in FEIR Subsection 9.2.6.

See also Response to Comment 35-4, FEIR Section 7.2 Fisheries for a discussion of impacts on the Delta by the proposed project, including the Wanger decision, FEIR Chapter 11 for a discussion of water conservation and water use reduction and FEIR Subsection 5.2.3.2 for the relationship to other water policy actions such as the Delta Vision Blue Ribbon Task Force.

## Response to Comment 36-10

The comment states that the EIR argues that no growth impacts were created by the elimination of Article 18(b). See Responses to Comments 35-3 through 35-7.

See also the Response to Comment 36-10 in FEIR Chapters 9 and 13.

## Response to Comment 42-6

The comment states that population will have impacts. See FEIR Subsections 8.2.2.1 and 17.2.7.1.

## Response to Comment 62-6

The comment suggests that the EIR should determine the amount of water used by San Joaquin Valley developments built around shallow enclosures of water and the amount of water they would use if they were devoted to xeric plants or native plants that use little water. This comment does not appear to raise an environmental issue that is a result of the proposed project and, therefore, it is beyond the he scope of this EIR. To the extent that this comment points to specific examples of decisions or legal challenges to decisions based on what it considers inappropriate analyses of local decision-making on development decisions, see FEIR Subsection 8.2.2.2 for a discussion on whether the Department has a responsibility to analyze and mitigate growth induced-impacts at the local level. See also FEIR Subsections 17.2.2 and 17.2.4.4.

### Response to Comment 64-3

The comment expresses a concern that growth-inducing impacts associated with increased water supply were inadequately analyzed. See FEIR Subsection 8.2.2.1.

### Response to Comment 66-24

The comment states that the DEIR did not adequately address the amount of growth. See FEIR Subsections 8.2.2.1, 8.2.2.2, 17.2.5.8, and 17.2.7.3.

## 8.4 SUMMARY OF TEXT CHANGES TO DEIR CHAPTER 8 GROWTH-INDUCING IMPACTS

The following is a summary of text changes for DEIR Chapter 8. Note that Tables 8B and 8C are brand new tables for Chapter 8 but for readability they are not shown in underline format.

The second sentence in the first paragraph on page 8-6 of the DEIR is revised to include text that was inadvertently left out:

> There is no precise way to determine whether an increase in water supply, an expansion of water delivery systems, or a transfer of water between areas directly or indirectly induces growth. Furthermore, population growth is influenced by a host of complex factors. At the statewide and regional levels, growth is principally the result of the natural increase in the population – the excess of births over deaths.

The first sentence in the third paragraph on page 8-6 of the DEIR is revised to read as follows:

> In the analysis, a number of conservative assumptions are made, which result in over-estimating the potential ~~increase in~~ local population growth ~~associated with the~~ potentially attributable to the proposed project.

To clarify the extent to which increased dry year supplies, including from the water supply management practices could increase water reliability that could support additional development, the fourth paragraph on page 8-6 of the DEIR is revised to read as follows:

> The provisions of the Monterey Amendment that could affect deliveries of SWP water to M&I contractors include the Table A transfers and retirements, the water allocation procedures and the water supply management practices. The Table A transfers and retirements and water allocation procedures could ~~have~~ result in a substantial ~~effect on~~ net increase in average annual deliveries, as well a lesser net increase in dry year deliveries, as described in Chapter 6. The water supply management practices, through more flexible use of SWP facilities and out of service area storage, could increase effective deliveries to contractors in dry periods but would not have much effect on annual average deliveries. The out-of-service-area storage provision could provide supplies with sufficient magnitude and reliability to allow an M&I contractor to rely on the supply to bridge drought periods (supplemental drought supply).

To clarify the extent to which increased dry year supplies, including from the water supply management practices could increase water reliability that could support additional development, the first paragraph on page 8-8 of the DEIR is revised to read as follows:

~~Although use of the water supply management practices could increase the reliability of M&I contractors' water supplies,~~ These water supply management practices together could provide some additional reliability through more flexible use of SWP facilities and out-of-service-area storage, but there would be little effect on average annual deliveries of SWP water for reasons described in Chapter 6~~. It was assumed that land use planning agencies in the service areas of M&I contractors that received an increase in critical year SWP deliveries but did not receive an increase in their average SWP supplies would be unlikely to approve new development on the basis of increased dry year deliveries alone.~~ Only the out-of-service-area storage provision could provide supplies with sufficient magnitude and reliability to allow an M&I contractor to rely on the supply to bridge drought periods and, subject to local policy considerations, rely on withdrawals from storage as part of a supply that could support growth.

To the extent that among the various factors affecting growth, water supply was a constraint to growth, and that an M&I contractor's average annual supply was not a constraint to growth but its dry-year supply was, then an increase in that contractor's dry-year supply could potentially result in an increase in growth. Stated another way, if water supply was a constraint to growth, any dry-year supply increase could result in added growth if an agency's dry year water supply, rather than its average annual supply, was a constraint to growth.

To clarify the methodology and refine data used to estimate population, DEIR Subsection Methods for Estimating Population Growth on pages 8-8 and 8-9 is revised to read as follows:

**Method for Estimating Population Growth**

Those M&I contractors that were recipients of permanent transfers of Table A amounts would receive increased average annual Table A deliveries as a result of the proposed project. To determine the potential for an increase in water supply to support additional population, per capita water consumption factors were used to estimate population growth. ~~As m~~Most of the SWP's urban customers are located either in Southern California (South Coast Hydrologic Region) or the San Francisco Bay Area (San Francisco Bay Hydrological Region)~~.~~ ~~and all of the~~ The recipients of Table A transfers and supplies banked outside of the service area are located in these two ~~regions~~ hydrologic regions and in the South Lahontan and Colorado River Hydrologic Regions; therefore, water consumption factors for these regions were used in the calculations. Gallons per capita per day (GPCPD) information ~~was~~ were obtained from *The California Water Plan Update* (Bulletin 160-05) and Department staff. As described in Bulletin 160-05, current levels of water use were prepared and presented from recent actual years, as opposed to including statistical adjustments as was done in previous Bulletin 160 publications. Three years were selected to show the range of actual water supplies and use based on a range of hydrologic conditions:

- 1998, which was a wet water-supply year statewide;
- 2000, an overall average or normal water year; and
- 2001, a below average or dry year for most of the state.

Bulletin 160-05 considered three "future demand scenarios" for 2030 (the future year established for estimating future water demands and the delivery capabilities of existing and planned facilities). The three demand scenarios are:

- Current Trends – ~~Recent trends continue for~~ Water demand is based on current population growth and development patterns, agricultural and industrial production, environmental water dedication, and conservation trends.
- Less Resource Intensive – ~~Recent~~ Water demand is based on current trends for population growth and development patterns, with a growing economy (higher agricultural and industrial production), and more environmentally protective policies (more environmental water dedication and higher conservation) compared to ~~current trends~~ the Current Trends demand scenario and the More Resource Intensive demand scenario.
- More Resource Intensive – Water demand is based on a growing economy with ~~H~~higher population growth and development patterns, higher agricultural and industrial production~~, and no additional environmental water dedication, and less conservation compared to current trends~~. Environmentally protective policies (environmental water dedication and conservation) are not the first priority for water management decisions and water use is less efficient compared to the Current Trends and Less Resource Intensive demand scenarios.

For each of these demand scenarios, Bulletin 160-05 included urban water use and population projections for 2030, by hydrologic regions throughout the state. Table 8-2 presents this data for the South Coast, ~~and~~ San Francisco Bay, South Lahontan and Colorado River Hydrological Regions, and the GPCPD rates calculated from this data. In Tables 8-3A and B, the GPCPD rates for each demand scenario were used to estimate the population that could be supported by the additional average annual SWP deliveries and supplemental drought supply to certain M&I contractors. The future year used in this EIR is 2020, compared to the 2030 future year used by the Department for Bulletin 160-05. Therefore, the population calculations would represent population estimates for 2030. The actual population in 2020 would be expected to be something less.

**TABLE 8-2**

**GPCPD FOR THE SOUTH COAST AND SAN FRANCISCO BAY BY HYDROLOGIC UNITS REGION**

| Year | Hydrologic ~~Unit~~ Region | Total Urban Water Use (TAF) | Population | GPCPD |
|---|---|---|---|---|
| 1998 | San Francisco Bay | 991 | 5,937,000 | 149 |
| 1998 | South Coast | 3,621 | 17,555,000 | 184 |
| 1998 | South Lahontan | 211 | 698,375 | 270 |
| 1998 | Colorado River | 700 | 573,000 | 1,091 |
| 2000 | San Francisco Bay | 1,069 | ~~6,106,000~~6,109,000 | 156 |
| 2000 | South Coast | 4,249 | ~~18,223,000~~18,236,000 | 208 |
| 2000 | South Lahontan | 269 | 721,490 | 333 |
| 2000 | Colorado River | 684 | 607,000 | 1,005 |
| 2001 | San Francisco Bay | 1,110 | 6,224,000 | 159 |
| 2001 | South Coast | 3,990 | 18,611,000 | 191 |
| 2001 | South Lahontan | 237 | 738,645 | 286 |
| 2001 | Colorado River | 607 | 628,000 | 863 |
| **Current Trend** | | | | |
| 2030 | San Francisco Bay | 1,267 | 7,857,000 | 144 |
| 2030 | South Coast | 5,122 | 23,827,000 | 192 |
| 2030 | South Lahontan | 431 | 1,266,375 | 304 |
| 2030 | Colorado River | 1,079 | 1,166,500 | 826 |
| **Less Resource Intensive** | | | | |
| 2030 | San Francisco Bay | 1,115 | 7,857,000 | 127 |
| 2030 | South Coast | 4,340 | 23,827,000 | 163 |
| 2030 | South Lahontan | 345 | 1,266,375 | 243 |
| 2030 | Colorado River | 952 | 1,166,500 | 729 |
| **More Resource Intensive** | | | | |
| 2030 | San Francisco Bay | 1,467 | ~~7,857,000~~7,788,500 | ~~144~~ 168 |
| 2030 | South Coast | 6,259 | ~~23,827,000~~26,929,800 | ~~188~~ 207 |
| 2030 | South Lahontan | 575 | 1,559,000 | 329 |
| 2030 | Colorado River | 1,397 | 1,416,800 | 880 |

Notes: GPCD: (Total Urban Water Use (TAF)]*325,851*1,000/([population]*365).
Source: California Department of Water Resources, California Water Plan Update, Bulletin 160-05 and personal communication with Scott Hayes and Marla Hambright, Department of Water Resources, October 9, 2008 and April 17, 2009.

To clarify the results of the based on refinements to certain data used to estimate population, and the extent to which increased dry year supplies, including from the water supply management practices could increase water reliability that could support additional development, DEIR Subsection 8.2.2 Results of the Analysis on pages 8-9 through 8-12 is revised to read as follows:

### 8.2.2 Results of the Analysis

The potential local increase in population that could be supported based on estimated increased deliveries to M&I contractors attributable to the proposed project was determined by analyzing supply increases under two conditions: based on average annual supply increases; and based on dry year supply increases, including supplies withdrawn from out-of-service-area storage.

It is important to note that the results of these two analyses are not additive. For a particular M&I contractor, if water supplies under average conditions are a constraint to growth but supplies under dry year conditions are not, then the maximum potential growth inducement for that contractor would be based on its increase in average annual

supplies. If instead, a contractor's supplies under dry year conditions are a constraint to growth but supplies under average conditions are not, then maximum potential growth inducement for that contractor would be based on its increase in dry year supplies. If a contractor's supplies under both average conditions and dry year conditions are a constraint to growth, then the maximum potential growth that contractor's increased supplies could support would be based on whichever condition resulted in the smaller increase in supply. Since the Department does not know whether water supply is a constraint to growth for any of these M&I contractors, and if so whether it is the supply under average or dry year conditions or both that is the constraint, for the purposes in this EIR, it is assumed that the maximum potential growth-inducing impact attributable to the proposed project is based on whichever condition result in the larger population estimate.

Average annual SWP deliveries were estimated for the proposed project and for the projected baseline condition in 2020 (see Tables 6-22 and 6-25 in Chapter 6, Effects of Proposed Project on SWP and SWP Contractor Operations). Based both on Table A deliveries only and on Table A and Article 21 water combined, eight M&I contractors would receive increased average annual deliveries of SWP water under the proposed project in 2020 when compared to the baseline. The eight M&I contractors that would receive ~~increased~~ an increase in average annual ~~Table A~~ deliveries include Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Desert WA, Mojave WA, and Palmdale W~~A~~D. ~~Considering deliveries of Table A and Article 21 water combined would result in seven M&I contractors receiving increased average annual deliveries of SWP water under the proposed project in 2020 when compared to the baseline.~~ M&I contractors that would receive increased average annual deliveries of Table A and Article 21 water combined include Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Mojave WA, Desert WA, and Palmdale WA. Increased average annual deliveries to each of these M&I contractors are shown in Table 8-3A together with the estimated population that the additional water could support under each of the future demand scenarios. As shown in Table 8-3A, the total increase in average annual deliveries to the eight M&I contractors of Table A water is 90,900 AF per year, and to the ~~seven~~ eight M&I contractors of Table A and Article 21 water combined is ~~91,400~~ 94,700 AF per year. This increase in water supply could support a total estimated maximum population ~~of new residents~~ in the service areas of the affected water agencies under the current trend~~s~~ demand scenario of ~~470,241~~ 406,200 based on Table A deliveries alone and up to ~~484,499~~ 424,935 based on both Table A and Article 21 deliveries. Under the less resource intensive demand scenario, the increased water supply could support an estimated maximum population of ~~545,517~~ 474,045 ~~new residents~~ based on Table A deliveries and up to ~~561,684~~ 495,451 based on both Table A and Article 21 deliveries. Under the more resource intensive demand scenario, the increased water supply could support an estimated maximum population of ~~392,808~~ 363,256 ~~new residents~~ based on Table A deliveries alone, and up to ~~405,103~~ 379,638 based on both Table A and Article 21 deliveries.

Average critically dry year SWP deliveries were estimated for the proposed project and for the projected baseline condition in 2020 (see Table 6-24 in Chapter 6). As shown in Table 8-3B, dry year supplies, including supplies withdrawn from out-of-area storage over a 5-year dry period could also support population in Napa County FC&WCD, Solano County WA, Alameda County FC&WCD, Zone 7, Alameda County WD, Santa Clara Valley WD, Castaic Lake WA, Mojave WA, Palmdale WD and Coachella Valley WD.

**TABLE 8-3A**

**POTENTIAL POPULATION ~~INCREASE~~ SUPPORTED BY ~~DUE TO~~ ESTIMATED AVERAGE ANNUAL DELIVERIES IN ~~2020~~2030**

| | Additional Deliveries (AFY)[1] | | | Potential ~~Additional~~ Population[2] | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Based on Table A Deliveries | | | Based on Table A and Article 21 Deliveries | | |
| **SWP M&I contractors** | **Table A Deliveries** | **Article 21 Deliveries** | **Total** | **Current Trends** | **Less Resource Intensive** | **More Resource Intensive** | **Current Trends** | **Less Resource Intensive** | **More Resource Intensive** |
| Napa County FC&WCD | 2,400 | 800 | 3,200 | 14,879 | 16,871 | ~~12,830~~ 12,753 | 19,839 | 22,494 | ~~17,106~~ 17,005 |
| Solano County WA | 3,200 | 800 | 4,000 | 19,839 | 22,494 | ~~17,106~~ 17,005 | 24,798 | 28,118 | ~~21,383~~ 21,256 |
| Alameda County FC&WCD, Zone 7 | 25,100 | 700 | 25,800 | 155,610 | 176,440 | ~~134,179~~ 133,380 | 159,950 | 181,360 | ~~137,921~~ 137,100 |
| Castaic Lake WA | 31,700 | 800 | 32,500 | 147,396 | 173,619 | ~~120,425~~ 136,715 | 151,115 | 178,001 | ~~123,464~~ 140,165 |
| Coachella Valley WD | 6,700 | 700 | 7,400 | ~~31,153~~ 7,241 | ~~36,696~~ 8,205 | ~~25,453~~ 6,797 | ~~34,408~~ 7,998 | ~~40,529~~ 9,062 | ~~28,112~~ 7,507 |
| Desert WA | 1,500 | 0 | 1,500 | ~~6,975~~ 1,621 | ~~8,215~~ 1,837 | ~~5,698~~ 1,522 | ~~0~~[3] 1,621 | ~~0~~[3] 1,837 | ~~0~~[3] 1,522 |
| Mojave WA | 17,800 | 0 | 17,800 | ~~82,765~~ 52,272 | ~~97,490~~ 65,394 | ~~67,620~~ 48,300 | ~~82,765~~ 52,272 | ~~97,490~~ 65,394 | ~~67,620~~ 48,300 |
| Palmdale WD | 2,500 | 0 | 2,500 | ~~11,624~~7,342 | ~~13,692~~ 9,185 | ~~9,497~~ 6,784 | ~~11,624~~7,342 | ~~13,692~~ 9,185 | ~~9,497~~ 6,784 |
| **Total** | **90,900** | **3,800** | **94,700** | **~~470,241~~ 406,200** | **~~545,517~~ 474,045** | **~~392,808~~ 363,256** | **~~484,499~~ 424,935** | **~~561,68~~ 495,451** | **~~405,103~~ 379,638** |

Notes:
1. Average annual increases in deliveries to M&I contractors resulting from the proposed project, as compared to the baseline scenario, from Tables 6-22 and 6-25.
2. Based on 2030 GPCPD rates included in Table 8-2. ~~for the South Coast and the San Francisco Bay Hydrologic Regions, per the California Water Plan Update, Bulletin 160-05.~~
3. ~~Assumed no population growth associated with negative total additional deliveries.~~

**TABLE 8-3B**

**POTENTIAL POPULATION IN 2030 SUPPORTED BY ESTIMATED DRY YEAR DELIVERIES**

| Contractor | Additional Deliveries | Potential Population | | |
|---|---|---|---|---|
| | Net Increase in Average Critically Dry Year Total Deliveries, AF/Y | Current Trends | Less Resource Intensive | More Resource Intensive |
| Napa County FC&WCD | 500 | 3,100 | 3,515 | 2,657 |
| Solano County WA | 500 | 3,100 | 3,515 | 2,657 |
| Alameda County FC&WCD, Zone 7 | 22,620 | 140,235 | 159,007 | 120,201 |
| Alameda County WD | 11,260 | 69,808 | 79,152 | 59,835 |
| Santa Clara Valley WD | 25,590 | 158,648 | 179,884 | 135,984 |
| Castaic Lake WA | 12,100 | 56,261 | 66,271 | 52,184 |
| Mojave WA | 6,500 | 19,088 | 23,880 | 17,638 |
| Palmdale WD | 700 | 2,056 | 2,572 | 1,899 |
| Coachella Valley WD | 1,300 | 1,405 | 1,592 | 1,319 |
| **Total** | **81,070** | **453,700** | **519,387** | **394,375** |

Seven of the nine M&I contractors that were recipients of Table A transfers had an increase in both critically dry year water supplies and average annual water supplies (Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Mojave WA, and Palmdale WD). The estimates for these contractors of the potential population that could be supported shown in Table 8-3B based on critically dry year water supplies are less than the population estimates based on average annual water supplies as presented in Table 8-3A. Therefore, for these seven contractors, the maximum potential population that could be supported is assumed to occur under average annual conditions (see Table 8-3A).

In addition to these contractors, two M&I contractors that stored water outside their service areas had a net increase in critically dry year supplies because of their stored water (Alameda County WD and Santa Clara Valley WD). These two contractors were not the recipients of any Table A transfers, had a decrease in average annual supplies due to the change in allocation procedures, and therefore, are not included in the analysis based on average supply conditions. For these two M&I contractors, the maximum potential population that could be supported would occur under dry year conditions (see Table 8-3B).

As noted above, the Department does not know whether water supply is a constraint to growth for any of these M&I contractors, and if so whether it is the supply under average or dry year conditions or both that is the constraint. For purposes of this EIR, the Department assumes the maximum potential growth-inducing impact attributable to the proposed project for a particular contractor is based on whichever supply condition results in the larger population estimate. Therefore, the population estimates presented in Table 8-3C are based on: M&I contractors with an increase in average annual supplies as a result of the proposed project (Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Desert WA, Mojave WA, and Palmdale WD); and contractors with a decrease in average annual supplies as a result of the proposed project but an increase in critically dry year supplies (Alameda County WD and Santa Clara Valley WD).

As shown in Table 8-3C, the total estimated maximum population in the service areas of the affected water agencies under the current trend demand scenario is 634,656 based on average annual Table A deliveries and dry year supplies and up to 653,391 based on average annual deliveries of both Table A and Article 21 water and dry year supplies. Under the less resource intensive demand scenario, the increased water supply could support an estimated maximum population of 733,081 based on average annual Table A deliveries and dry year supplies, and up to 754,487 based on average annual deliveries of both Table A and Article 21 water and dry year supplies. Under the more resource intensive demand scenario, the increased water supply could support an estimated maximum population of 559,075 based on average annual Table A deliveries alone and dry year supplies, and up to 575,457 based on average annual deliveries of both Table A and Article 21 deliveries and dry year supplies.

**TABLE 8-3C**

**POTENTIAL TOTAL POPULATION SUPPORTED IN 2030**

| | Table A Deliveries[1] | Supplemental Drought Supplies[2] | Total | Table A and Article 21 Deliveries[1] | Supplemental Drought Supplies[2] | Total |
|---|---|---|---|---|---|---|
| **Current Trends** | 406,200 | 228,456 | **634,656** | 424,935 | 228,456 | **653,391** |
| **Less Resource Intensive** | 474,045 | 259,036 | **733,081** | 495,451 | 259,036 | **754,487** |
| **More Resource Intensive** | 363,256 | 195,819 | **559,075** | 379,638 | 195,819 | **575,457** |

1. M&I contractors with an increase in average annual supplies as a result of the proposed project (Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Desert WA, Mojave WA, and Palmdale WD) as presented in Table 8-3A.
2. M&I contractors with a decrease in average annual supplies as a result of the proposed project but an increase in critically dry year supplies (Alameda County WD and Santa Clara Valley WD) as presented in Table 8-3B.

Therefore, under any and all of the future demand scenarios, implementation of the proposed project could support additional population ~~growth~~ in some areas. As mentioned above, the GPCPD are based on 2030; therefore, it is reasonable to assume that the actual population ~~growth~~ in 2020 for these areas would be less. For the purpose of this growth-inducing analysis, it is assumed that the additional average annual deliveries and dry year supplies through out-of-service-area groundwater storage presented in Table 8-3C would go to support new population. The effects of this increase in population are discussed below.

### Elimination of Obstacles to Growth

Increased average annual deliveries of SWP water ~~and~~ or dry year supplies to affected service areas could result in the construction of additional local infrastructure to deliver the water supplies. This could remove an obstacle to growth.

### Economic Effects

At the local level, the increased population that could result from increased average annual deliveries of SWP water and supplemental drought supplies could stimulate increased economic activity as a result of an increased demand for goods and services necessary to support the population growth. The need for additional goods and services would induce increased employment. An increase in future employees would require the development of physical space. It is the characteristics of this physical space and its

specific location that would determine the type and magnitude of associated environmental impacts of this economic activity.

**Environmental Impacts**

Because there could be an increase in population in some areas, currently undeveloped land could be converted to urban uses or current urbanization could be intensified, which could have secondary (or indirect) environmental effects such as impacts on special-status species and their habitat, changes in storm water quality and quantity due to increased impervious surface cover, reduction in air quality, increased traffic and noise levels, reduction in public service and utility levels of service, etc. Some of the EIRs prepared by recipients of Table A transfers identified similar secondary impacts in their service areas (see Table 8-1).

The specific environmental effects associated with increased population are too speculative to predict or evaluate since the exact location and manner of potential future development within the ~~eight~~ 10 M&I contractors' services areas cannot be determined. However, this Program EIR provides an independent but generalized analysis of secondary impacts based on the known environmental effects of urban development in California. This analysis is presented below. The project-specific environmental impacts of implementing the proposed project are evaluated in Chapter 7 of this EIR.

The conversion of land to urban uses could result in a variety of different environmental impacts. Land that would be converted to urban uses along transportation routes and on the fringes of existing urban and suburban areas is typically undeveloped or used for agriculture. Conversion to urban uses of agricultural lands removes this land permanently from being available for agricultural production. In addition, conversion of agricultural or undeveloped lands eliminates most of the wildlife habitat value of these lands. Landform and drainage patterns could be altered, with natural drainage channels largely replaced by engineered storm water systems. Impermeable roofs, parking lots, and roadways could replace permeable surfaces with a consequent increase in storm water runoff and a decrease in groundwater recharge. Various substances associated with homes, yards, and vehicle use (paints, pesticides, plasticizers, oil and grease, brake dust, pet wastes, etc) could be deposited on urban surfaces and conveyed to natural waterways. The introduction of people and vehicles into previously unpopulated or lightly populated areas could increase traffic, noise levels, air pollutant emissions, the generation of sanitary wastewater and solid waste, and the demand for local services.

To clarify the results of the based on the modified methodology used to estimate population, and the extent to which proposed water supply management practices could increase water reliability that could support additional development, DEIR Subsection 8.3.1 Use of additional SWP Water by M&I Contractors on pages 8-12 and 8-13 is revised to read as follows:

**8.3.1 Use of Additional SWP Water by M&I Contractors**

The EIRs prepared on the transfers of Table A amount from KCWA to the M&I contractors provide an indication of the M&I contractors' intentions. Five of the EIRs indicate that the M&I contractors intend to use the additional SWP water to support growth but several note that some of the water would be used for a different purpose. Different purposes include the use of the additional water to recharge over-drafted groundwater basins, to replace more expensive water supplies and to improve system

reliability by storing the extra SWP water for use in years when water availability from the SWP or other water sources is limited.

Groundwater basins are in an over-drafted condition in the service areas of two of the municipal water agencies that would receive additional SWP water (Mojave WA and Palmdale WD). The EIR prepared on the transfer of Table A amount from a KCWA member agency, Berrenda Mesa WD, to Mojave WA indicates that Mojave WA intends to use some of its additional SWP supply for groundwater replenishment. The EIR prepared on the transfer of Table A amount from a KCWA member agency, Belridge WSD, to Palmdale WD indicates that Palmdale WD intends to use some of its additional SWP supply to reduce reliance on groundwater. Thus, only a portion of the additional SWP water received by Mojave WA and Palmdale WD would be used to support growth.

It is unlikely that any of the ~~eight~~ 10 M&I contractors receiving increased average annual SWP deliveries and/or having dry year supplies would use the additional SWP supply to replace more expensive water from another source. For these ~~eight~~ M&I contractors, SWP water is probably their most expensive current major source of water. None of the EIRs on the Table A transfers indicate that M&I contractors intend to use their additional SWP water for this purpose.

~~Any of the eight M&I contractors could allocate some or all of the additional SWP water supply to improving reliability rather than supporting additional growth. One way of improving reliability is to store SWP water within or outside a contractor's service area for later use in dry years. As noted above, Mojave WA and Palmdale WD intend to use some of their additional SWP supply to replenish groundwater basins, which would have the effect of increasing the reliability of their water supply systems. Two other M&I contractors, Castaic Lake WA and Alameda County FC&WCD Zone 7, stored SWP water outside their service areas between 1994 and 2003. This suggests that they are using part of the additional SWP water to improve the reliability of their water systems.~~

One way for SWP contractors to ~~Another way to~~ improve reliability is to increase system reliability by increasing use of SWP water when it is available and using other sources when SWP water is in short supply. The EIR on the Table A transfer from the Belridge WD to Solano County WA indicates that Solano County WA intends to use a portion of its additional SWP water to improve its system reliability in this way. The Negative Declaration on the Table A transfer from the Belridge WD to Napa County FC&WCD indicates that Napa County FC&WCD would use all of its additional SWP supply to improve system reliability.

Some of the ~~eight~~ M&I contractors receiving additional SWP water intend to use part of it to support growth and the rest for another purpose, primarily improving system reliability. It is not clear how much of the additional SWP water would be used to support growth and how much would be used for other purposes.

If those SWP contractors with out-of-service-area groundwater storage assumed that these banked supplies would be withdrawn over a longer period than five years, the dry year deliveries would be less. If these contractors do not assume using the banked supplies as supporting their ability to serve, but instead treat it as an emergency reserve, there would be no additional population beyond that shown in DEIR Table 8-3A.

These and other SWP contractors could use additional out-of-area storage facilities in the future to support increased population, should they so choose. However, there

would have to be sufficient supplies available to them to bank to support that increase. Any projection by the Department of which M&I contractors might implement such banking programs and use that supply to support population is speculative and is not evaluated in this response. Any such new program would require a site specific environmental analysis.

To clarify the extent to which additional dry year supplies could increase water reliability that could support additional development, the first paragraph under DEIR Subsection 8.3.3 Local Decision-Making on Land Use Planning on page 8-14 is revised to read as follows:

> It is unclear whether in certain areas increased average annual SWP deliveries or dry year supplies eliminate an obstacle to growth. The proposed project would not improve infrastructure capacity or remove a regulatory constraint that had previously limited growth in the municipal contractor's service areas. It is possible that uncertainty in water supplies could, in and of itself, be considered an obstacle to growth because planners might have limited growth (urbanization) based on water supply availability. For instance, the 2004 EIR on the Table A transfer to Castaic Lake WA states that the transfer would eliminate an obstacle to growth.

To clarify the results based on refinements to certain data used to estimate population, and the extent to which increased dry year supplies, including from the water supply management practices could increase water reliability that could support additional development, DEIR Subsection 8.3.4 Conclusions on pages 8-14 and 8-15 is revised to read as follows:

**8.3.4 Conclusions**

The additional water supply that would be made available by the Monterey Amendment through average annual Table A deliveries and dry year supplies to ~~eight~~ 10 M&I contractors could support a maximum ~~increase in~~ population of approximately ~~392,808~~ 559,075 to ~~561,684~~ 733,081 (depending on the future scenario) in their service areas. Average annual Table A and Article 21 deliveries and dry year supplies to ~~seven~~ 10 M&I contractors could support a maximum ~~increase in~~ population of approximately ~~405,104~~ 575,457 to ~~561,685~~ 754,487. This analysis concludes that some of this water could support additional growth. This conclusion is similar to that found in environmental documents prepared by the sellers and buyers of Table A water. It is unlikely that all of such population growth would occur because some of the water would be used for other purposes such as improving the reliability of water supplies, or that any growth that did occur could be attributed to the Monterey Amendment because it is likely that in some cases alternative sources would have been used to support this growth in the absence of SWP supplies.

As compared to baseline conditions, the potential exists for the proposed project to have an adverse impact as a result of growth-inducement. Increases in population can result in new development that causes the adverse impacts to the environment described in this Chapter. This study concludes that some of the impacts are potentially significant and some cannot be avoided. This conclusion is similar to conclusions found in some of the environmental documents prepared by sellers and buyers of Table A water. The types of impacts and potential mitigation measures are discussed in Section 8.2 and are common to urban development projects.

~~Neither the Department nor local water supply agencies make local decisions regarding growth and where it will occur.~~ Cities and counties in the contractor service areas

affected by the increased population are responsible for making fundamental decisions about land use and growth and considering the environmental effects of their growth and land use planning decisions. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. Where appropriate, they must consider mitigation measures, alternatives and overriding considerations.

Mitigation Measures

The ability to make changes or alternations that could potentially avoid or substantially lessen some of this potentially significant environmental effect is within the responsibility and jurisdiction of other public agencies, primarily cities and counties and such changes have been adopted by such other agencies or can and should be adopted by such other agencies. Neither the Department nor most local water supply agencies have authority to make local decisions regarding growth and where it will occur. The Department does not have the ability or the authority to identify and monitor or regulate land use decisions made by local government or to establish general rules that would govern these decisions. These decisions are within the authority and jurisdiction and properly deferred to local decision-makers, such as cities and counties, where specific projects can be more fully described and are ready for detailed analysis and appropriate mitigation measures. In addition to measures imposed by local decision-makers, federal, State and local governments implement numerous mitigation strategies for specific project impacts such as Best Management Practices (BMPs) to minimize water quality and air emission impacts. The Department also issues the SWP Delivery Reliability Report every two years which informs local decision-makers of water supply limitations of SWP water.

# 9. RELIABILITY OF WATER SUPPLIES AND GROWTH

# 9. RELIABILITY OF WATER SUPPLIES AND GROWTH

## 9.1 INTRODUCTION

The following responses address comments on the reliability of water supplies and growth contained in Chapter 9 of the DEIR. Comments covered several primary issues including claims that: the DEIR does not analyze the unreliability of Table A supplies and the potential for "paper water"; the DEIR does not analyze the perceived reliance on Article 21 water to support permanent developments; the pre-Monterey Amendments SWP contracts had mechanisms that could have prevented the possibility of "paper water" where SWP water was involved; these mechanisms are the enforcement of Article 18(b)'s permanent shortage provision and Article 21(g)(1)'s constraints on the State regarding delivery of "surplus" water that would encourage economies dependent upon sustained deliveries of surplus water; if the Monterey Amendments become permanent, these safeguards will disappear from the SWP contracts, regardless of what local decision-makers may later do in review of specific projects; and current measures to inform decision-makers of SWP water supply reliability, including the State Water Project Delivery Reliability Report (Reliability Report) are inadequate.

The master response is organized by the following subtopics:

9.2.1 Comments Outside the Scope of the EIR
9.2.2 Terminology: Table A Amounts, Article 18 and Article 21
9.2.3 Current Delivery Probability in Comparison to Firm Yield
9.2.4 The DEIR's Assessment of Water Supply Reliability
9.2.5 Article 18(b) and Article 21
9.2.6 State Water Project Delivery Reliability Report

Some of the comments received on the DEIR's analysis of water supply and growth are fully addressed by this master response; some require an additional response due to the specific nature of the comment. A response to all comments is included in Section 9.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include reference to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This Chapter addresses the following comments: 6-16, 16-34, 17-1, 17-2, 17-12, 21-10, 21-44, 21-45, 21-54, 22-17, 22-23, 22-24, 22-26, 30-4, 30-10, 30-16, 30-17, 30-22, 30-24, 30-26, 30-27, 30-28, 30-50, 30-58, 30-61, 30-100, 30-101, 30-102, 30-103, 30-104, 30-105, 30-115, 30-144, 31-4, 31-5, 35-5, 36-9, 36-10, 36-11, 36-12, 56-1, and 66-3.

## 9.2 MASTER RESPONSE

### Summary

A major concern of the court in *PCL v. DWR,* and expressed by many of the comments, was that the Department ignores a "common-sense" connection between water availability and growth, and that several changes in the Monterey Amendment could lead decision-makers to

approve urban developments that would not have been approved if they had a more realistic idea of water availability from the SWP. This issue was termed a "paper water" problem because reliance is arguably placed on water that "exists only on paper in the SWP long-term water supply contracts." The concern was that deleting Article 18(b) and Article 21(g)(1) removed important tools that could have prevented the possibility of reliance on "paper water" where SWP water was involved. The Department agrees that there is a common sense connection between water availability and growth. The Department disagrees with some of the comments on what the Department should do with regard to the issue of local expectations of SWP water supply reliability, and believes this issue has been adequately analyzed for CEQA purposes.

As noted in DEIR Subsection 2.5.1, the total of maximum Table A amounts was originally important to the SWP because this number was intended to be the firm yield of the SWP. As discussed in FEIR Subsection 13.2.2.3, because of the recognition that some anticipated facilities have not been built and that the reliability of SWP water supplies fluctuates for many reasons, including physical and regulatory causes, the Department now considers the probability of an amount of water being delivered annually rather than firm yield when discussing reliability of SWP water supplies. As a result of this water delivery probability procedure, Table A amounts now serve primarily as a way of allocating supply shortages and surplus among the contractors and as a way of allocating costs of the SWP. Reducing the Table A amounts through invocation of Article 18(b) is not relevant in calculating total available SWP water supply, given current day operations and planning based on water delivery probability curves, and given the fact that all contractor shortages are allocated on a pro-rata basis under the provisions of Article 18(a) of the Monterey Amendment. See FEIR Subsection 13.2.2.3.

Land use decisions are not made in a vacuum, such as relying only on a Table A number found in the long-term SWP water supply contracts. There are many other factors local decision-makers consider. The fact that there are disputes over the Department's analysis for the Reliability Report, that there are lawsuits challenging UWMPs and local planning decisions, and that there are efforts being made in legislative and regulatory arenas to improve decisions relative to land use and water supply, is evidence that local and state decision-makers recognize the "common sense" connection between water availability and growth and are making efforts to deal with it.

Article 21(g)(1) was designed to prevent the establishment of permanent agricultural crops based on Article 21's provision that provided for delivery of scheduled surplus water. It was considered reasonable to delete it from the contracts as part of the Monterey Amendment when the "scheduled surplus water" provisions were deleted. Scheduled surplus water had not been available for about nine years prior to the Monterey Amendment. Unscheduled (interruptible) water was infrequently available in that same period (1987 to 1995), and it was unlikely that anyone thought that intermittent Article 21 water would be used to support development of an economy in agricultural or M&I areas.

A number of documents published by the Department make it clear to water suppliers and local government that they should not rely on Article 21 water on an annual basis. They all recognize, however, that Article 21 water can be stored for later use and that stored water can constitute a source of water that can be relied upon in local water supply planning. In the absence of storage, interruptible Article 21 water is not likely to contribute to local water supply reliability because of its intermittent and unpredictable nature. With storage, agencies could provide a drought buffer that would support some added economic activity, but not within the context of Article 21(g)(1). Ultimately, incorporating Article 21 water into the assessment of

water supply reliability is a local decision based on specific local circumstances and facts. Although the Department is aware of storage of Table A and Article 21 water which may lead to additional local development due to the drought "buffer" from additional stored supplies, the Department is not aware of any local water supplier or local governmental agency that relies upon "the sustained delivery of surplus water" to support the development of a local economy.

During the preparation of the DEIR, and in trying to determine how to comply with the court's order on Article 18(b), the Department reviewed various ways to invoke Article 18(b) including invocation of Article 18(b) with no delivery of Article 21 water to SWP contractors. The invocation of Article 18(b) without Article 21 deliveries was not considered in detail in the DEIR because the Department concluded that it would not meet any of the objectives of the Monterey Amendment and because it would be in conflict with the basic terms of the long-term water supply contracts. See discussion on pages 11-5 and 11-6 in the DEIR. The Department also determined, after considerable discussion, that it would not have invoked Article 18(b) in this manner at any time in the past, nor into the near-term future. However, in response to comments, the Department has developed an analysis of the effects of operating the SWP with Article 18(b) invoked and with limited or no Article 21 water delivered to SWP contractors. Although the Department believes that Article 18(b) would not have been invoked in this way, nevertheless, this analysis provides additional information to the public and to decision-makers on the effects of not delivering water to SWP contractors that would otherwise be available under Article 21. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3.

As stated in the DEIR on page 9-11, for the Monterey Plus EIR, the "paper water" issue is really a question of whether local planners recognize the limitations on the reliability of SWP supplies and more specifically whether the Monterey Amendment contributed to misunderstandings of water reliability. Like most other surface water supplies, SWP water supplies fluctuate, so in some years more water may be available and in other years less water may be available. The Department has determined that invocation of Article 18(b) and returning to the application of the concept of safe or firm yield in determining the amount of Table A that can be reliably allocated each year, except in extreme droughts, is not a reasonable way to protect the Delta or to make local government aware of the variability and limitations of SWP water supply. Such an action would not alter Delta exports, would not alter water supply reliability, nor would it alter the total amount of SWP water allocated to contractors. The action would decrease Table A allocations and commensurately increase Article 21 allocations, both as scheduled surplus and as unscheduled (interruptible) supplies. See FEIR Subsection 13.2.2.3.

### 9.2.1 Comments Outside the Scope of the EIR

Comments addressed in this subsection include: 17-1, 21-5, 21-45, 22-23, 24-4, 25-3, 25-4, 27-4, 28-2, 28-3, 28-4, 29-5, 30-10, 30-17, 30-28, 30-58, 30-101, 30-103, 31-5, 32-2, 39-1, 44-3, 45-1, 48-1, 51-1, 52-3, 54-4, 57-1, 58-3, 58-4, 60-3, 61-4, 66-20, 67-16, and 67-18.

#### SWP Operations, Delta and Land Use Issues

Some of the comments argue that the SWP has major impacts on local development and that the DEIR should look at all of the impacts of the SWP with regard to growth and reliability of water. Some of these comments appear to address the entire SWP.

As discussed in FEIR Subsection 5.2.1.1, this EIR examines changes resulting from the proposed project (the Monterey Amendment and the Settlement Agreement) and its potential

environmental impacts. It is not an EIR on all of the operations and impacts of the SWP or on the all of the problems regarding the Delta or relating to land use and water supply. This EIR does not need to address all of the environmental impacts that may be associated with operation of the SWP before the Monterey Amendment. Those impacts would continue to exist even if there were no proposed project, and thus under CEQA they are part of the baseline conditions rather than program-generated environmental impacts that determine the required range of program alternatives. The EIR only needs to study in detail the adverse impacts generated by the proposed project, mitigation measures, and alternatives that address those project-generated impacts. The DEIR examined growth-inducement from the proposed project and its relationship to the reliability of SWP water.

## Local Land Use Planning Decisions

Some of the comments request that the Department make or review specific land use decisions regarding the use of or reliability of SWP water deliveries facilitated by or relying on the Monterey Amendment, or they request that the Department not continue operating the SWP under the Monterey Amendment because it will lead to poor land use decisions based on availability of water.

As discussed in FEIR Subsection 8.2.2.2, the level of detail contained in the DEIR for growth-inducing impacts and reliability analyses is consistent with the general level of review required for the Monterey Amendment. Even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities, local water resources and local water use. The potential environmental impact of growth is subject to more detailed environmental review at the project level. Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Even if the Department had the authority to make such decisions at this level of detail, it is not timely or practicable for the Department to identify and monitor or regulate individual decisions made by local government or to establish general rules that would govern these decisions. These decisions are within the authority and control of and properly deferred to local decision-makers where specific projects can be more fully described and are ready for detailed analysis. This approach is consistent with the traditional legislative policy that fundamental decisions regarding land use and growth are made through the general planning process at regional and local levels. See FEIR Subsection 8.2.2.2. The Department's role in water reliability planning is discussed in FEIR Subsection 9.2.6.

## Reducing Demand, SWP Role and Water Policy

A number of the comments received on the subject of water reliability and growth argue that the Department should take a leadership role in establishing mandatory requirements regarding water reliability and growth, including establishing specific standards that address where and when growth should occur and that require implementation of conservation measures to reduce the need for water and to reduce demands for water from other sources. The DEIR considered these issues, but concluded that the Monterey Amendment was not an appropriate tool for mandating these types of changes. These suggested changes were rejected as alternatives because they did not meet the project objectives. They are not alternatives to the proposed project, but rather different projects with different objectives designed to address issues related to operation of the SWP as a whole or to address issues only tangentially (or not at all) related to the SWP or the Monterey Amendment. See FEIR Subsections 5.2.1.2 and 11.2.4.

As discussed in FEIR Subsection 8.2.2.2, although the Department does not have statutory authorization to establish mandatory requirements regarding water reliability and growth, it supports local and regional water planning and conservation efforts through statewide planning and through grants and local assistance programs. Demand reduction and water conservation strategies are important tools in water management planning and the Department is involved in a number of legislative and administrative actions designed to provide a regional or statewide approach to these strategies. See DEIR pages 11-5 through 11-7. The Department is taking a leadership role and is actively involved in many of these efforts. See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection. As discussed above, such measures are not alternatives to the Monterey Amendment and implementation of such measures would not be affected by the Monterey Amendment. See FEIR Subsection 11.2.4.

However, the DEIR does not avoid the demands facing the state and the Delta either with regard to growth and water availability (see Chapters 8 and 9 on Growth and Water Reliability in the DEIR and the FEIR), with regard to the stresses facing the Delta (see Section 7.3 in the DEIR and Section 7.2 on fisheries in the FEIR) or with regard to challenges posed by climate change (Chapter 12 in the DEIR and Chapter 12 in the FEIR). Application of the Monterey Amendment is not inconsistent with other water policy actions. As stated in FEIR Subsection 5.2.1.2, the primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits. Physical, legislative, administrative or judicial changes that affect water supply or benefit the environment may impact how the Monterey Amendment is applied. See FEIR Subsection 11.2.4.

## Issues Outside the Scope of the EIR

Some of these comments are on social, economic and legal issues unrelated to the proposed project such as whether private corporations should be allowed to have water rights or whether owners of water rights should be allowed to sell water or water rights. Other issues, such as legal authority and policy reasons for and against the Monterey Amendment or the KFE property transfer and related water policy actions, are related to the proposed project but generally are not environmental issues resulting from the proposed project and are outside the scope of the EIR. However, this EIR provides some information and background on some of these issues so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. To the extent that these issues are related to potential physical changes in the environment, they have already been included in the EIR. See FEIR Subsection 4.2.1.3.

Some of the information relating to these issues may also be included, as appropriate, in required CEQA documents such as the findings on impacts, mitigation measures and alternatives and any statement of overriding considerations. Some of the information relating to these issues may be appropriate to bring before the Director in the context of his decision of whether to continue to operate under the Monterey Amendment and the Settlement Agreement, or in the context of other decisions he makes as the Director of the Department of Water Resources. The comments received are part of the permanent record for this proposed project and will be forwarded, as appropriate, to the Director for his consideration. See FEIR Subsection 4.2.1.3.

### 9.2.2 Terminology: Table A Amounts, Article 18 and Article 21

Comments addressed in this subsection include: 17-1, 17-2, 21-10, 22-17, 20-7, 21-5, 21-10, 22-17, 24-3, 24-4, 25-3, 25-4, 27-4, 28-2, 28-3, 28-3, 28-4, 29-5, 30-12, 30-26, 30-27, 30-28, 30-50, 30-59, 30-140, 32-1, 32-2, 39-1, 44-3, 44-4, 45-1, 45-3, 48-1, 51-1, 52-3, 54-4, 57-1, 58-3, 58-4, 60-3, 61-4, 62-2, 65-6, 66-3, 66-20, 66-21, 67-16, 67-17, 67-18, and 67-25.

As stated on page 2-11 of the DEIR, each long-term water supply contract has an Article 6(a) which lists each contractor's Table A amount. A contractor's Table A amount is the maximum amount of SWP water that the State has agreed to make available to a contractor during the year on a regular basis. Table A amounts serve as a basis for allocating certain costs and for allocating water during shortages. The Monterey Amendment did not change Article 6(a). Table A amounts were previously called "entitlement." As a result of the Settlement Agreement, the term "entitlement" was eliminated, and the Article 6(a) amounts are now referred to as "Table A amounts."

As stated on page 2-11 and 2-12 of the DEIR, Article 6(c) of the contracts requires the Department to take all reasonable steps to complete the water supply facilities needed to deliver the water amounts contracted for in Table A. Neither the Monterey Amendment nor the Settlement Agreement changed Article 6(c).

As stated on page 2-16 of the DEIR, Article 18(a) specified how the Department would allocate shortages in the event the Department could not deliver all of the contractor's requests. It established a process in which agricultural contractors took certain delivery reductions prior to M&I deliveries being reduced. Article 18(b) specified how the Department could reduce contractor's Table A amounts in the event of a permanent shortage of water supply due to a reduction in the minimum SWP yield, regardless of preventive or remedial actions taken by the Department, including lack of construction of sufficient additional conservation facilities. In the event the Department declared a permanent shortage under Article 18(b), the Department would proportionally reduce Table A amounts so that the sum of the Table A amounts equaled the reduced SWP minimum yield. The effect of implementing Article 18(b) would be to reduce the number of years when agricultural contractors would have to accept shortages in allocations of Table A water before allocations for urban contractors are reduced. It would also reduce the amount of that Table A shortage in years when Article 18(a) was applied to SWP deliveries. See Chapter 13 of this FEIR for further discussion on Article 18.

The term "surplus water" found in Article 21 of the SWP long-term water supply contracts has had a very specific meaning under these contracts, pre- and post- Monterey Amendment (see DEIR Subsections 2.5.4 and 4.4.1). It means "…project water available as determined by the State that is not needed for fulfilling contractors' annual [Table A] deliveries as set forth in their water delivery schedules furnished pursuant to Article 12 or for meeting project operational requirements, including storage goals for the current or following years." Such water is always surplus to the needs of the Delta, areas of origin, and other in-basin needs, including environmental or other regulatory requirements. When such water reaches the Delta it may be exported by the SWP and subsequently classified as Article 21 (sometimes called "surplus water") supply. See FEIR Subsection 14.2.1.

The pre-Monterey Article 21 listed several types of Article 21 water including "scheduled surplus water," a kind of water that SWP contractors were asked to schedule five years in advance because SWP demands were well below what the SWP could normally deliver. Shortly after initial execution of the contracts, Article 21 was amended to clarify that this surplus water would be offered first for agricultural and ground water replenishment purposes. At that time,

language was added that states "[I]n providing for the delivery of surplus water pursuant to this article, the State shall refuse to deliver such surplus water to any contractor or non-contractor to the extent that the State determines that such delivery would tend to encourage the development of an economy within the area served by such contractor or non-contractor which would be dependent upon the sustained delivery of surplus water." In 1974, this language was placed in section (g) of Article 21. Later, Article 21 was amended to include a category of water called "extra surplus water" or "unscheduled surplus water," which was intermittent and unpredictable and could not be scheduled in advance. Because "extra surplus water" was included in Article 21, Article 21(g)(1) was also applicable to this water supply. See Chapter 14 of the FEIR for further discussion of Article 21.

The Monterey Amendment eliminated the agricultural first shortage in Article 18(a) so that all shortages were allocated proportionally to all contractors. It deleted the provisions for "scheduled surplus water" and renamed "extra surplus water" to "interruptible water" which is offered on an interruptible basis if available, and allocated proportionally based on Table A amounts (when requests are greater than the supply). The Monterey Amendment also deleted Article 18(b) and several provisions relating to scheduled surplus water, including Article 21(g)(1).

### 9.2.3 Current Delivery Probability in Comparison to Past Firm Yield Analysis

This section addresses the following comments: 6-16, 17-1, 21-10, 21-54, 30-22, 30-27, 30-50, 31-4, 35-5, 36-9, and 36-10.

This subsection is identical to FEIR Chapter 13 Subsection 13.2.2.3 because the understanding of the concept of delivery probability instead of firm yield is critical to understanding how Article 18 works and why Article 18(b) is not relevant today. Responses to comments regarding this section are discussed in FEIR Chapter 13.

In responding to the comments applicable to Article 18, the Department here clarifies that Table A amounts are *not* used in the annual calculation of total available SWP water supply, but instead are used in the allocation of the available SWP water supply among the contractors. Some of the comments on the Article 18(b) invocation alternatives incorrectly assume that the Department makes use of the planned SWP firm yield in making decisions of available SWP water supply, or that local planning agencies responsible for growth decisions incorrectly use the planned SWP firm yield in making water planning decisions

As noted in DEIR Section 2.5.1, the total of maximum Table A amounts was originally important to the SWP because this number was intended to be the firm yield of the SWP. As discussed in FEIR Subsection 13.2.2.3, because of the recognition that some anticipated facilities have not been built and that the reliability of SWP water supplies fluctuates for many reasons, including physical and regulatory causes, the Department now considers the probability of an amount of water being delivered annually rather than firm yield when discussing reliability of SWP water supplies. As a result of this water delivery probability procedure, Table A amounts now serve primarily as a way of allocating supply shortages and surplus among the contractors and as a way of allocating costs of the SWP. Reducing the Table A amounts through invocation of Article 18(b) is not relevant in calculating total available SWP water supply, given current day operations and planning based on water delivery probability curves, and given the fact that all contractor shortages are allocated on a pro-rata basis under the provisions of Article 18(a) of the Monterey Amendment. See FEIR Subsection 13.2.2.3.

The Department uses probability curves that show the likelihood of water deliveries by the SWP in any year type given a range of historical hydrologic events. Oroville reservoir end-of-water-year (September) storage "targets" are calculated based on a formula that assumes drawdown of the reservoir during a six-year drought (two droughts from 1928 to 1934 and 1987 to 1992 have occurred in California's recent past). The Department's objective in formulating and using this process is also to ensure that sufficient amount of reservoir storage for the following year is maintained and next year's requirement to protect water quality in the Delta will be met.

Currently, an initial Table A allocation on December 1 of each year is determined with a 90 percent probability that such allocation can be delivered by the SWP during the following year. The initial Table A allocation is a conservative estimate, but during the winter and spring of each year, as storms move in off the Pacific and new snow surveys and runoff assessments occur, the allocation is generally increased. The Department and the contractors have considered different levels of risk in determining the total available SWP supply to be delivered in a certain year. For example, the Department and the contractors may agree on a 99 percent exceedance level (i.e. a 99 percent chance of being met) for the December 1 Table A allocation. If a contractor is allocated Table A water based on a 99 percent exceedance level, there is little risk that such supply will not be available (only a one percent chance of not occurring). For a 90 percent exceedance level, there is a slight increased risk that such supply will not be available (i.e. a 10 percent chance of not occurring). Thus the Department estimates the probability of the water supply that can be delivered each year, and updates that information and communicates it to the contractors on a frequent basis as hydrologic conditions change. The water supply contracts do not dictate the degree of risk that the SWP and contractors will accept for their SWP water supply, nor how the Department should operate the entire system in meeting that supply (for more on the Department's determination of total Table A water supply see DEIR Subsection 6.2.3; for more on the history of the Department's determination of water supply, see the Department's Bulletin 132 series, specifically Bulletin 132-90, page 86; Bulletin 132-93, page 27; and Bulletin 132-94, page 27).

As a result of this water delivery probability procedure, Table A amounts now serve primarily as a way of allocating supply shortages and surplus among the contractors, and as a way of allocating costs of the SWP. Reducing the Table A amounts through invocation of Article 18(b) is not relevant in calculating total available SWP water supply, given current day operations and planning based on water delivery probability curves, and given the fact that all contractor shortages are allocated on a pro-rata basis under the provisions of Article 18(a) of the Monterey Amendment.

Comment 6-16 specifically asks why the allocation of certain SWP costs, water shortages, and surplus among the contractors cannot be accomplished with a reduction in Table A amounts through invocation of Article 18(b). It is possible that with an invocation of Article 18(b), certain SWP costs, water shortages and surplus water could have been allocated among the contractors. For example, under a contract amendment, the Department could allocate the costs for constructing, maintaining, and operating the existing SWP facilities under a decreased total Table A amount as noted in the comment. However, the DEIR recognizes that the Monterey Agreement and the Monterey Amendment were the result of negotiations, and provides a description of the process that led to the proposed project. See DEIR Chapter 3 for the history on Article 18(b). See also FEIR Subsection 5.2.3.1. Although it is possible that the negotiators of the Monterey Agreement could have considered invocation of Article 18(b), they chose a different approach. See the discussion in FEIR Subsections 13.2.2.1 and 13.2.4.1. The invocation of Article 18(b) is not part of the proposed project; however, the Department did analyze alternatives with Article 18(b) invoked. CNPA3 and CNPA4 are two no project alternatives that show how implementation of Article 18(b) might affect the contractors.

Other comments suggest that elimination of Article 18(b) removed a provision that could empower the Department to reduce project Table A amounts to reflect the "safe yield" of the project and that Article 18(b), and the concept of safe or firm yield would protect the Delta or to make local government aware of the limitations of SWP water supply. Like most other surface water supplies, SWP water supplies fluctuate, so in some years more water may be available and in other years less water may be available. The Department has determined that invocation of Article 18(b) and returning to the application of the concept of safe or firm yield in determining the amount of Table A that can be reliably allocated each year, except in extreme droughts, is not a reasonable way to protect the Delta or to make local government aware of the variability and limitations of SWP water supply. Such an action would not alter Delta exports, would not alter water supply reliability, nor would it alter the total amount of SWP water allocated to contractors. The action would decrease Table A allocations and commensurately increase Article 21 allocations, both as scheduled surplus and as unscheduled (interruptible) supplies. See FEIR Subsection 13.2.2.3.

As discussed in FEIR Chapter 7, Subsection 7.2.2.1.3, the Department considers current regulatory processes and evolving Delta constraints to be the appropriate means of protecting the Delta and other environmental resources. As discussed in FEIR Chapter 9, Subsections 9.2.4 and 9.2.6, the Department considers processes such as the Reliability Report (which addresses the impact of climate change and Delta pumping restrictions) and other means of urban water management planning to be a more effective means of making local government aware of the variability and limitations of the SWP water supply. See FEIR Subsection 13.2.2.3.

### 9.2.4 The DEIR's assessment of Water Supply Reliability

Comments discussed in this subsection include: 17-1, 21-44, 21-45, 22-23, 22-24, 30-17, 30-58, 30-100, 30-101, 30-102, 30-103, 30-104, 30-115, 31-4, and 36-10.

A major concern of the court in *PCL v. DWR,* and expressed by many of the comments, was that the Department ignores a "common-sense" connection between water availability and growth, and that several changes in the Monterey Amendment could lead decision-makers to approve urban developments that would not have been approved if they had a more realistic idea of water availability from the SWP. This issue was termed a "paper water" problem because reliance is arguably placed on water that exists only on paper in the SWP long-term water supply contracts. The concern expressed by the comments was that deleting Article 18(b) and Article 21(g)(1) removed important tools that could have prevented the possibility of reliance on "paper water" where SWP water was involved. As discussed below, the Department agrees that there is a common sense connection between water availability and growth. The Department disagrees with the comments on what the Department should do with regard to the issue of local expectations of SWP water supply reliability, and believes this issue has been adequately analyzed for CEQA purposes.

#### 9.2.4.1 Background

PCL, in its Comment 30-58 states that the "problem of 'paper water' – stated in its simplest terms, of development decisions grounded in expectation of water supplies exceeding what can actually be delivered – emerged as one of the central themes in the Third District's ruling, and is perhaps the issue with which *PCL v. DWR* is most closely associated in both case law and in public discussion."

The Department agrees that the issue of unreasonable expectations of water supply by local decision-makers was a significant issue identified by the court in *PCL v. DWR* and this issue is

discussed in the DEIR at Chapter 9 Reliability of Water Supplies and Growth. On page 9-1, the DEIR states:

> The plaintiffs in *PCL v. DWR* argued that urban planning agencies might overestimate the amount of water available to support urban growth by basing decisions on the contractual Table A amount of an SWP contractor and not on a more realistic expectation of annual SWP water deliveries. The Court of Appeal noted that '[T]here is certainly the possibility that local decision-makers are seduced by contractual entitlements and approve projects dependent on water worth little more than a wish and a prayer.' The possibility of decision-makers approving urban developments that would not have been approved if they had a more realistic idea of water availability from the SWP was termed a 'paper water' problem because reliance is arguably placed on water that exists only on paper in the SWP long-term water supply contracts.

As stated in the DEIR on page 9-11, the "paper water" problem is really a question of whether local planners recognize the limitations on the reliability of SWP supplies" and more specifically whether the Monterey Amendment contributed to misunderstandings of water reliability.

Comment 30-58 argues that the analysis presented in the DEIR is not the probing and comprehensive assessment anticipated in the appellate ruling and settlement and it summarizes its view of the conclusions of Chapter 9 as saying that growth based on paper water never existed; that its extent has been exaggerated; and that new measures (biennial reliability reports, UWMP, and SB 221/610) will prevent it from happening in the future (DEIR pages 9-2 to 9-11).

The Department considers the analysis presented in the DEIR to be consistent with the Court of Appeal's ruling. While the conclusions of the DEIR summarized in Comment 30-58 appear similar in some ways to the conclusion of the DEIR, they do not correctly state the conclusions of the DEIR. As stated on page 9-11 of the DEIR, "…the elimination of Article 18(b) by the proposed project would not have an effect on urban growth and would not create a continued 'paper water' problem because planners either do not consider SWP supplies when approving growth at the General Plan level, or have more detailed, realistic, and readily available delivery information available to them to consider at the development approval level." The next two subsections will address these conclusions in more detail.

### 9.2.4.2 Past Practices

With regard to past practices, the Department reviewed or conducted surveys and considered the literature regarding water planning at the local level (see pages 9-5 to 9-6 of the DEIR). The Department agrees with some of the comments that some local decision-makers may have approved projects with little regard for the availability of adequate water supplies to support the development, and that some of these projects may have involved SWP water supplies. The DEIR did not conclude that growth based on "paper water" never existed, but, as stated on page 9-11, it did conclude that the review showed "…little evidence that a 'paper water' problem was created by the contractual SWP Table A amounts or that it affected urban growth decisions."

The critical question is not whether growth supported by "paper water" ever existed, but whether changes (especially the deletion of Article 18(b)) in the Monterey Amendment would be considered by local planners in a way that would lead to unreal expectations of water deliveries. The Department considers its conclusions regarding past practices to be supported by its reviews and surveys. Of greater significance is the current perception of local decision-makers regarding water reliability and what the Department should do about it.

### 9.2.4.3 Current Perceptions

As stated in the DEIR on page 9-11, "…even if a 'paper water' problem did arise from land use planners relying on Table A amounts, the passage of SB 610 and 221 and the State Water Project Delivery Reliability Report have led to better information dissemination to local planners regarding the reliability of SWP supplies."

Comment 30-58 states that a "…consistent body of CEQA case law, from *Kings County* through *Vineyard*, underscores the depth of the problem of decision-makers ignoring the reliability of water supplies." The Department is familiar with this body of law. Over the last two decades, the concern of courts has been parallel to legislative and administrative concerns. The Kings County opinion was issued in 1990. The Monterey Amendment was executed in 1995. *PCL v. DWR* was decided in 2000. SB 610 and 221 were passed in 2002. The Urban Water Management Planning Act was enacted in 1983 and amended several times including major changes in 2004. As part of the Monterey Settlement Agreement in 2003, the SWP contracts were amended to delete the term "entitlement" and the Department agreed to issue a biennial Reliability Report. The California Supreme Court issued two cases recently that deal with water supply planning - the *Vineyard* decision in 2007 and the *In re Bay-Delta Programmatic EIR Coordinated Proceedings* decision in May of 2008. Other relevant state legislative and administrative actions relating to growth and water conservation are discussed in FEIR Subsection 5.2.3.2. All of these actions are evidence that the local and state decision-makers are very aware of the relationship between the issues of water supply reliability and growth. The Department provides up-to-date information on the availability of SWP supplies both real time, and for future planning purposes. The Department does not approve local growth, nor does it provide advice to local governments concerning their growth decisions. See FEIR Subsection 8.2.2.2 for a discussion on the Department's responsibility with regard to local land use decision-making.

### 9.2.4.4 Effectiveness of Current Measures Relating to Water Reliability

Some comments point to perceived deficiencies in some of the measures discussed in Chapter 9 of the DEIR such as the biennial reliability reports, UWMPs, and SB 610/221 decisions and point to these instances as proof that these measures will not prevent growth based on paper water.

Chapter 9 of the DEIR does not say that these measures will prevent growth, or growth based on paper water. What it does say on pages 9-10 to 9-11 is that "…it is unlikely that land use planners and decision-makers would base their decisions only on the Table A amounts in the SWP long-term water supply contracts," and that local planners today have "…more detailed, realistic, and readily available SWP delivery information available to them." This information includes the following:

- the Department's annual Bulletin 132 on "Management of the State Water Project" has made it clear since Bulletin 132-83 that the actual delivery capability of the SWP was significantly less than the Table A amounts in the water supply contracts;
- the change in water supply contract term from "entitlements" to "Table A amounts" brought about as a result of the Settlement Agreement provides additional clarity;
- the biennial "State Water Project Delivery Reliability Report" series of publications required by the Settlement Agreement provides current information to SWP contractors and to planning agencies regarding the overall delivery capability of the existing SWP

facilities under a range of hydrologic conditions, and supply availability to each contractor. The 2007 Reliability Report considered the effect of climate change and regulatory restrictions on SWP water supply. These reports show the great variability from year to year of water availability under different conditions and also make it clear that the average Table A deliveries are significantly less than the full Table A amounts. Additionally, the report is directly sent to appropriate cities and counties in the SWP contractor service areas, and those local agencies can make their land use decisions in part based on the availability of water from the SWP and other sources;

- UWMPs are required for all but the smallest urban water suppliers to assess water reliability under various hydrologic conditions and to describe ongoing and planned water conservation measures and provide a water shortage contingency analysis. A Department review of some of these plans shows that they recognize the variability of water supplies and reflect the recognition that full SWP Table A amounts cannot be delivered in all years; and
- Senate Bills 610 and 221 require an assessment and assurance of water supply reliability by local decision-makers when they make certain land use development decisions.

Some of the comments appear to argue that because the measures above may not always work to prevent unrealistic expectation, the process is not working. They point to areas where there have been disagreements over the Department's assessment of water reliability, disagreements over information included in UWMPs, and disagreements regarding local planning decisions. The DEIR did not maintain that these measures work perfectly and that future decisions would never be based on "paper water" or unrealistic expectations. Nor did the DEIR attempt to evaluate the accuracy of the information of specific UWMPs or local decisions. See FEIR Subsection 8.2.2.2 for a discussion of the Department's responsibility with regard to local land use decision-making.

#### 9.2.4.5 Summary

The DEIR points out that land use decisions are not made in a vacuum, such as relying only on a Table A number found in the long-term SWP water supply contracts. There are many other factors local decision-makers consider. The fact that there are disputes over the Department's analysis for the Reliability Report, that there are law suits challenging UWMPs and local planning decisions, and that there are efforts being made in legislative and regulatory areas to improve decisions relative to land use and supply is evidence that local and state decision-makers recognize the "common sense" connection between water availability and growth and are making efforts to deal with it.

### 9.2.5 Article 18(b) and Article 21

Comments discussed in this section include: 6-16, 17-1, 17-2, 17-12, 21-10, 21-45, 21-54, 22-17, 22-23, 30-4, 30-10, 30-16, 30-17, 30-22, 30-24, 30-26, ,30-27, 30-28, 30-50, 30-58, 30-100, 30-101, 30-144, 31-4, 31-5, 35-5, 36-9, 36-10, 36-12, and 66-3.

The focus of the comments regarding the effectiveness of the measures discussed in FEIR Subsection 9.2.4 above is concern that the DEIR may exaggerate the effectiveness of these measures and that local decision-makers will not have realistic information about SWP water reliability. These comments state that deleting Article 18(b) and Article 21(g)(1) removed important tools that could have prevented the possibility of "paper water" where SWP water was

involved. This subsection summarizes and clarifies the conclusions of the DEIR that use of Article 21 water and elimination of Article 18(b) and Article 21(g)(1) do not contribute to a "paper water" problem.

### 9.2.5.1 Elimination of Article 18(b)

In *PCL v. DWR* at page 919, the court stated that the failure of the 1995 EIR on the Monterey Agreement to consider implementation of Article 18(b) in a no project alternative did "little more than acknowledge the paper commitment to build SWP facilities and the obvious fact that the hopes and dreams upon which the entitlements are based do not create a greater annual supply of water." Neither the court nor the comments suggested that invocation of Article 18(b) altered the contractual and political commitment to complete the SWP.

The court was responding to a concern that because the sum of the Table A amounts in the long-term water supply contracts is greater than the amount of water that the SWP can reliably deliver on an annual basis, land use planners and decision-makers have had an exaggerated impression of the SWP's delivery capability and therefore the amount of urban growth that can be supported by SWP water. Some of the comments echo this concern and argue that the proposed project's elimination of Article 18(b) eliminated the possibility of a downward adjustment of the Table A amounts to be more reflective of the SWP's actual capability to deliver water. In other words, the comments state that without Article 18(b), the original Table A amounts would be maintained causing the "paper water" problem to persist by affecting planners' urban growth decisions. They appear to argue further that if the Department had implemented Article 18(b) land use planners and decision-makers might not have approved some urban growth because they would have understood that the Department could not deliver the firm yield that the original Table A amounts was based upon.

Article 18(b) was present in the long-term water supply contracts before the Monterey Amendment. It specified how the Department could reduce Table A amounts in the event of a permanent shortage. It had never been invoked. The Department had not determined that there was a permanent shortage, nor had it determined how it would carry out Article 18(a) in the event of a permanent shortage. The court in *PCL v. DWR* said the 1995 EIR on the original Monterey Agreement was inadequate because it did not consider the alternative of invoking Article 18(b). This EIR looks at two options that invoke Article 18(b). See Subsection 13.2.2. See also Chapter 11 of the DEIR and Chapter 11 of this FEIR on Alternatives.

The environmental effect of eliminating Article 18(b) is one of whether its elimination creates a "paper water" problem. As discussed in Chapter 9 (page 9-11) of the DEIR, the "paper water" question is really a question of whether local planners recognize the limitations on the reliability of SWP supplies. In the early years of the SWP, the total Table A amount was important because this number was also intended to be the minimum project yield or the firm yield of the SWP. As discussed in the DEIR on page 2-11 and in FEIR Subsection 9.2.3, in recent years the concept of firm yield has been replaced with an annual delivery risk assessment and water delivery curves that show the likelihood of water deliveries by the SWP in any year given the range of historical hydrologic events. Table A amounts now serve primarily as a way of allocating shortages and surplus among the contractors and as a way of allocating costs of the SWP. Reducing the Table A amount through invocation of Article 18(b) is not relevant, given current day operations and planning based on water delivery reliability curves.

Chapter 9 of the DEIR also concluded that the elimination of Article 18(b) by the proposed project would not have an effect on urban growth and would not create a continued "paper water" problem because planners either do not consider SWP water supplies when approving

growth at the General Plan level, or have more detailed, realistic, and readily available SWP delivery information available to them to consider at the development approval level. As an example, Chapter 9 of the DEIR includes the results of a survey of 12 SWP contractors' UWMPs, which showed that the presentation of water supplies in their UWMPs did not present an unrealistic expectation that full Table A amounts would be received every year. These results were not included to show the accuracy of their assumptions, but rather to show that a person reviewing these UWMPs would have gained an understanding of the complexity of the SWP and its susceptibility to annual California weather patterns (DEIR pages 9-7 through 9-8).

In summary, a number of the comments expressed concern that by eliminating Article 18(b), the project was eliminating a key safeguard that allows the Department to respond to permanent shortages or a "critical safety valve that allows SWP entitlements to be cut back in light of changing climate conditions and/or regulatory constraints imposed to restore the Bay Delta ecosystem." The DEIR demonstrated that local planners recognize the limitations on the reliability of SWP supplies and more specifically that the Monterey Amendment did not contribute to misunderstandings of water reliability. Like most other surface water supplies, SWP water supplies fluctuate, so in some years more water may be available and in other years less water may be available. The Department has determined that invocation of Article 18(b) and returning to the application of the concept of safe or firm yield in determining the amount of Table A that can be reliably allocated each year, except in extreme droughts, is not a reasonable way to protect the Delta or to make local government aware of the variability and limitations of SWP water supply. See FEIR Subsection 13.2.2.3.

### 9.2.5.2 Article 21

Some comments indicated that with the elimination of Article 21(g) the Department has lost a tool that could prevent urban growth based on "paper water." Other comments suggest that Article 21 water is a "paper water" supply, which is now being relied upon for urban growth even though it is not a reliable supply.

#### 9.2.5.2.1 Understanding Article 21(g)(1)

Article 21(g)(1) states: "In providing for the delivery of surplus water pursuant to this article, the State shall refuse to deliver such surplus water to any contractor or noncontractor to the extent that the State determines that such delivery would tend to encourage the development of an economy within the area served by such contractor or noncontractor which would be dependent upon the sustained delivery of surplus water."

A key phrase in the article is "sustained delivery of surplus water," which refers to scheduled surplus water. As noted in DEIR Chapter 2, Subsection 2.5.1, the pre-Monterey contractor demand was often much less than 4.173 million AF, and prior to 1987 generally below 2 million AF. It was during such time that the Department could plan on delivery of an additional water supply above approved allocations of Table A water. Pursuant to Article 21(d) of the water supply contracts, contractors had to submit, by October 1 of each year, a preliminary water delivery schedule for surplus water for each month for the next five years. See also FEIR Subsection 14.2.1. By the early 1990's, contractual Table A amounts had increased to the maximum amounts and many contractors were beginning to request delivery of full Table A in some years. See FEIR Subsection 14.2.3. Therefore, the Department could no longer deliver such extra water supply.

The following discussion helps to clarify the background that led up to the elimination of Article 21(g)(1). As contractor demand grew and the 1987 to 1992 drought impacted deliveries,

it became apparent that scheduled surplus water would not be available in the future. No scheduled surplus water was delivered after 1986, and the total that year was less than 10,000 AF. As FEIR Table 9-1 shows, Article 21 water was seldom delivered after April each year, and no Article 21 water of any type was delivered in the months of July through December from 1987 through 1997 – years which covered the Monterey Agreement negotiation period. (FEIR Table 9-1 was derived from the Department's annual Bulletin 132 series for the years noted in the table.) It became evident that surplus water would only be available in the wetter years, and then only in the winter after SWP storage reservoirs were full or at target levels, all demands were being met, and there was additional water in the Delta that could be exported consistent with D-1641 and the applicable biological opinions. The "unscheduled water" provided under the contracts (later renamed "interruptible") fit this pattern of availability; scheduled surplus did not and as was mentioned previously was pre-scheduled in advance.

**FEIR TABLE 9-1**

**SWP ARTICLE 21 DELIVERIES 1986-1996**

| Year | Article 21, Acre-Feet | Delivery Months |
|---|---|---|
| 1986 | 24,350 | Jan-Dec |
| 1987 | 114,907 | Jan-Apr |
| 1988 | 0 | |
| 1989 | 0 | |
| 1990 | 90 | May-Jun |
| 1991 | 3,521 | Mar-Apr |
| 1992 | 1,156 | Jan-Apr |
| 1993 | 0 | |
| 1994 | 112,625 | Jan-Jun |
| 1995 | 64,330 | Jan-Apr |
| 1996 | 28,647 | Jan-Apr |

Article 21(g)(1) was designed to prevent the establishment of permanent agricultural crops based on Article 21's provision for delivery of scheduled surplus water. It was considered reasonable to delete it from the contracts as part of the Monterey Amendment when the "scheduled surplus water" provisions were deleted. Scheduled surplus water had not been available for about nine years prior to the Monterey Amendment. Unscheduled (interruptible) water was infrequently available in that same period (1987 to 1995) and it was unlikely that anyone thought that intermittent Article 21 water would be used to support development of an economy in agricultural or M&I areas.

In the hypothetical situation where Article 18(b) is invoked with a total Table A supply set at 1.9 million AF and Article 21(g)(1) applied, there would still be scheduled surplus as well as interruptible supply available in most years (based on historical deliveries of Table A and Article 21 exceeding 1.9 million AF). In this case, the Department would need to determine whether the Article 21 supplies would be supporting existing economic development or would "…tend to encourage the development of an economy within the area served by such contractor or noncontractor which would be dependent upon the sustained delivery of surplus water" (for example by planting permanent instead of annual crops).

The Department has never refused to deliver water based on Article 21(g)(1). It is difficult to know whether Article 21(g)(1) ever had much effect on water demand. Such a determination would be difficult and require consideration of many factors. As discussed in FEIR Subsection 8.2.2.2, even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information

about local facilities, local water resources and local water use and it is questionable whether the Department has the ability or the authority to identify and monitor or regulate each individual decision made by local government.

Even if the Department were to conduct such an analysis, it would need to consider that current economic activity requires a significant water supply. Based on current water demands, with SWP actual annual deliveries at or below a maximum of 3.6 million AF, and most contractors requesting full Table A deliveries of 4.173 million AF, it would be difficult for the Department to distinguish whether any of that current demand would encourage future economic development. A strong case could be made that full deliveries of SWP water up to current delivery volumes, regardless of classification of the water, would support existing economic development, not new development.

#### 9.2.5.2.2 Understanding the Unreliable Nature of Interruptible Article 21 Water

Some of the comments express concern that local government today is relying on Article 21 water to support permanent development. The DEIR provides information that shows that this concern is unlikely to occur.

The following discussion applies to the proposed project, where the only Article 21 water offered to SWP contractors is interruptible supply. The discussion does not apply to the two court-ordered no-project alternatives because those alternatives would continue delivery of both scheduled surplus water and interruptible supply under Article 21. See FEIR 13.2.2.2.

In Chapter 9, the DEIR identifies a number of sources of public information that discuss water reliability. Since 1963, the Department has published an annual bulletin (Bulletin 132) that provides information on the planning, construction, financing, management, and operations of the SWP. The Department also prepares and publishes the California Water Plan (Bulletin 160) approximately every five years. The Plan includes projections of future water demand and supply constraints of the SWP and the State's other water resources. The California legislature in 1983 enacted the Urban Water Management Planning Act which requires every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet annually, to prepare and adopt an UWMP and update it every five years. The Department has provided a guide to urban water suppliers on how to prepare UWMPs. As a result of the Settlement Agreement resulting from the Monterey Agreement litigation, the Department publishes a report on the reliability of SWP water every two years. All of these documents make it clear to water suppliers and local government that they should not rely on Article 21 water on an annual basis. They all recognize, however, that Article 21 water can be stored for later use and that stored water can constitute a source of water that can be relied upon in local water supply planning.

Since the implementation of the Monterey Amendment, the Department has also clarified the Article 21 water program in Department-issued Notices to SWP contractors, http://www.swpao.water.ca.gov/notices/index.cfm. In those Notices, it is stated that the Department will determine availability of Article 21 on a daily basis and may discontinue delivery upon short notice. Additionally, from 1995 to1999, the SWP contractors were required to first take delivery of a small percentage of their Table A water before taking a supply of Article 21 water. In 2000, the Department asked the contractors to take a base demand before Article 21 water. In 2001, 2002, and 2003, Article 21 water supplies were very limited and averaged approximately 45,000 AFY and no base demand was required.

It has been suggested that Article 21 water stored in a groundwater basin during wet periods and then drawn upon during droughts to increase reliability is tending to "encourage the development of an economy" during dry periods or when other water supply sources are deficient or unavailable. As noted in Subsection 8.2.1 of the DEIR, the Reliability Report states that for those SWP contractors who are able to store their wet weather supplies, Article 21 supply can be stored to offset other water that would have otherwise been used during a drought.

The pre-Monterey water supply contract Article 21(g)(1) stated: "In providing for the delivery of surplus water pursuant to this article, the State shall refuse to deliver such surplus water to any contractor or non-contractor to the extent that the State determines that such delivery would tend to encourage the development of an economy within the area served by such contractor or non-contractor which would be dependent upon the sustained delivery of surplus water." Article 21(g)(1) was designed to prevent agencies from relying on scheduled surplus water (therefore the reason for the term "sustained delivery"), not from using or storing interruptible Article 21 water when it was available. Even if Article 21(g)(1) had not been eliminated, the Department would not prevent water agencies from storing water that they could later withdraw during a drought. Such a limitation would not be consistent with sound water supply planning in California as described in the Department's Bulletin 160 series, nor would it be consistent with the intent of Article 21(g)(1). To the extent that Article 21 water, Table A water above current demands, or local supplies are placed in storage, that water can become more reliable for drought use, and could support additional population growth to the extent that the banking contractor relies on future extraction of the banked water in its water supply planning activities. See FEIR Subsection 8.2.4 for a discussion of the extent to which additional dry-year supplies resulting from the Monterey Amendment, including from the water supply management practices, can contribute to growth.

In the absence of storage, interruptible Article 21 water is not likely to contribute to local water supply reliability because of its intermittent and unpredictable nature. With storage, agencies could provide a drought buffer that would support some added economic activity, but not within the context of Article 21(g)(1), as explained above. Ultimately, incorporating Article 21 water into the assessment of water supply reliability is a local decision based on specific local circumstances and facts. Although the Department is aware of storage of Table A and Article 21 water which may lead to additional local development due to the drought "buffer" from additional stored supplies, the Department is not aware of any local water supplier or local governmental agency that relies upon "the sustained delivery of surplus water" to support the development of a local economy.

### 9.2.5.3 Analysis of Article 18(b) Invocation with Limited or no Article 21 Water

<u>Background</u>

Some comments suggest that the Department could have invoked Article 18(b) and interpreted Article 21 (g)(1) in a way that would have limited or precluded Article 21 deliveries. They state that this invocation would result in reduced exports that would reduce reliance on SWP water for development purposes, and thus result in less growth and more water for in-Delta uses.

Invocation of Article 18(b) is not part of the proposed project. Invocation of Article 18(b) is part of two no project alternatives. Invocation of Article 18(b) would not mean that more water would remain in the Delta to become outflow. As stated in the DEIR on page 2-16, the invocation would not have altered the amount of water that the Department exported and delivered to the contractors in the many years when more than the minimum SWP yield was available in the

SWP system. Instead, the additional water in excess of the reduced Table A deliveries would have been delivered to the contractors under Article 21 (see FEIR Subsection 13.2.2 on the invocation of Article 18(b).

During the preparation of the DEIR, and in trying to determine how to comply with the court's order on Article 18(b), the Department reviewed various ways to invoke Article 18(b) including invocation of Article 18(b) with no delivery of Article 21 water to SWP contractors. The invocation of Article 18(b) without Article 21 deliveries was not considered in detail in the DEIR because the Department concluded that it would not meet any of the objectives of the Monterey Amendment and because it would be in conflict with the basic terms of the long-term water supply contracts. See discussion on pages 11-5 and 11-6 in the DEIR. The Department also determined, after considerable discussion, that it would not have invoked Article 18(b) in this manner at any time in the past, nor into the near-term future. However, in response to comments, the Department has developed an analysis of the effects of operating the SWP with Article 18(b) invoked and with limited or no Article 21 water delivered to SWP contractors. Although the Department believes that Article 18(b) would not have been invoked in this way, nevertheless, this analysis provides additional information to the public and to decision-makers on the effects of not delivering water to SWP contractors that would otherwise be available under Article 21. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 13.2.2.2.

## Failure to Meet Most of the Project Objectives

The analysis here shows that invocation of Article 18(b) with limited or no Article 21 water would meet few, if any, of the Monterey Amendment project objectives, and in fact is directly contrary to many of those objectives as explained below.

Specific objectives of the Monterey Amendment are listed below, with comments as to the relationship of this analysis to each objective.

- *Resolve conflicts and disputes among SWP contractors regarding water allocations and financial responsibilities for project operations.*

  Invocation of Article 18(b) with limited or no Article 21 deliveries would increase conflict, especially by reducing deliveries by about 1.2 million AF (about 40 percent, see analysis below), but not reducing financial responsibility by a similar amount. Some energy costs would be reduced, but fixed costs, such as bond retirement, would continue unchanged. The resulting unit cost of water would increase financial pressure on agricultural contractors, and could result in the inability of some agricultural contractors to pay their share of SWP costs, threatening the financial viability of the SWP. Furthermore, the contractors would almost certainly file legal challenges to such administration of the long-term water supply contracts, adding to the conflict rather than resolving it.

- *Restructure and clarify procedures for SWP water allocation and delivery during times of shortage and surplus.*

  Invocation of Article 18(b) with limited or no Article 21 deliveries would be consistent with this objective for shortage periods; there would no longer be any deliverable surplus to restructure or clarify. Additionally during most years, Table A would not need to be allocated. This consistency is achieved, however, by reducing average annual deliveries by about 1.2 million AF or 40 percent. Under such a scenario the agricultural contractors might see fewer years when their deliveries would be cut before M&I deliveries, but in

most, if not all years, all contractors would receive less water than they would have received under the pre-Monterey allocation method. There would be no incentive for the contractors to agree to a measure that would reduce the amount of water they would otherwise have received.

- *Reduce financial pressures on agricultural contractors in times of drought and supply reductions.*

  Invocation of Article 18(b) with limited or no Article 21 water would increase financial pressures on agricultural contractors due to the increase in the unit cost of water. SWP facilities would be underutilized, while fixed operational costs and bond servicing costs would not change. These pressures would apply in all years, not just in times of drought and supply reductions.

- *Adjust the financial rate structure of the SWP to more closely match revenue needs.*

  Invocation of Article 18(b) with limited or no Article 21 water would do nothing to more closely match revenue needs of M&I contractors. It would increase financial pressures on agricultural contractors due to the increase in unit cost of water, and could result in the inability of some agricultural contractors to pay their share of the SWP costs. That financial stress could cause a mismatch with revenue needs.

- *Facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies.*

  Invocation of Article 18(b) with limited or no Article 21 water would decrease the reliability and flexibility of SWP water supplies by reducing average annual deliveries by about 1.2 million AF or 40 percent. Although the reliability of the 1.9 million AF of Table A supply would be greater percentage-wise than the reliability of delivering an occasional maximum of 4 million AF or an average 2.8 to 3.2 million AF of Table A, the overall supply would be less and the reliability of total water supplies of the SWP would be reduced by the elimination of all scheduled surplus and interruptible supplies.

- *Resolve legal and institutional issues related to storage of SWP water in Kern County groundwater basins, and in other areas.*

  Invocation of Article 18(b) with limited or no Article 21 water would have no direct effect on legal and institutional issues related to storage of SWP water in Kern County groundwater basins, although it would have the effect of triggering increased groundwater withdrawals to meet the supply deficiencies imposed by the scenario.

### Analysis of Invoking Article 18(b) and No Article 21 Deliveries

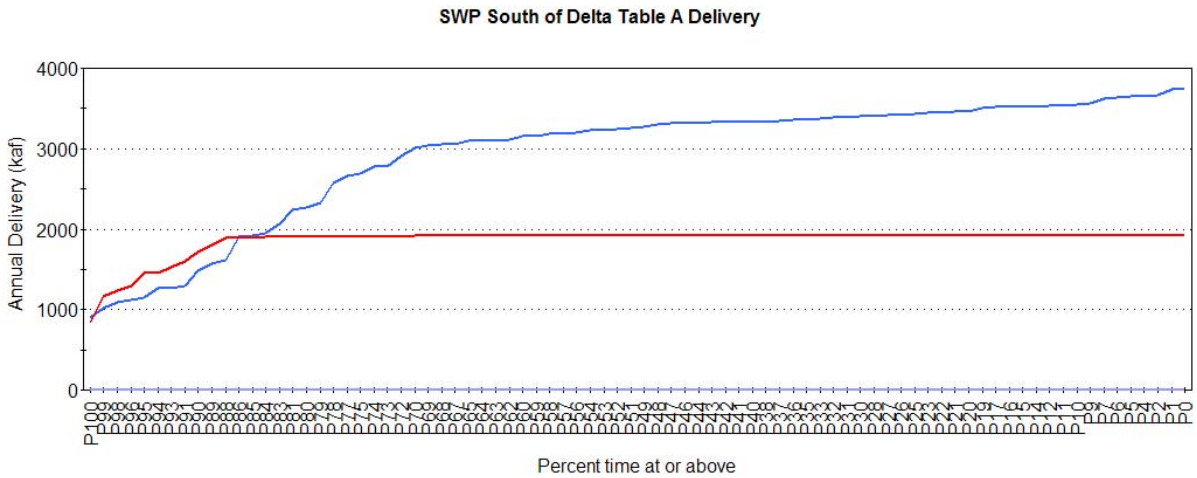
This analysis is based on Table A amounts totaling 1.9 million AF and the entire Article 21 supply not available to SWP contractors but available in the Delta for diversion and export to satisfy other water right holders, especially Reclamation through use of joint point of diversion at Banks Pumping Plant and export at CCWD facilities. Any remaining water would become Delta outflow.

Under the analysis, the SWP would be operated to: (1) satisfy the Table A requirements up to 1.9 million AF; (2) move transfer water acquired by SWP contractors; (3) export CVP water supplies pursuant to JPOD in conjunction with Reclamation; and (4) export transfer water for non-contractor entities. In other words, the Department would operate Banks Pumping Plant to pump water from the Delta to fill San Luis Reservoir and supply current demand to its

contractors. When added capacity was available above the SWP needs, Banks Pumping Plant would export transfer water purchased by SWP contractors, move water for CVP contractors south of the Delta, and then move transfer water for others using any remaining capacity.

Under this scenario and 2003 conditions, SWP contractors would receive the full 1.9 million AF of Table A about 88 percent of the time (see FEIR Figure 9-1) and would always receive at least 800,000 AF even in the most severe year in the current hydrologic record (1977). Table A deliveries would average about 1,850,000 AFY over the 73-year hydrologic period used in CALSIM modeling.

**FEIR Figure 9-1**
**(Under 2003 Conditions)**




Blue = Baseline deliveries under D-1641
Red = Limited Delivery Scenario

In contrast, average annual scheduled SWP deliveries for the proposed project and the No Project Alternative are estimated to range from 2.776 million AF to 2.838 million AF under 2003 conditions as shown in DEIR Appendix F, Table A-3a. Average annual unscheduled deliveries are estimated to range from 265,000 AF to 294,000 AF under 2003 conditions as shown in DEIR Appendix F, Table A-5a. Total deliveries would range from 3,070,000 AF to 3,104,000 AF. Thus under the analysis, average annual scheduled deliveries to SWP contractors would decrease by an estimated 926,000 AF to 988,000 AF, and unscheduled deliveries would be completely eliminated. Average annual SWP contractor deliveries would be reduced by about 1,220,000 to 1,254,000 AF or about 40 percent. Although the reduction in contractual Table A amounts is approximately 54 percent, actual deliveries have been less than the maximum 4.173 million AF contractual Table A amounts.

Because exports would be artificially constrained at levels substantially less than the SWP capability to deliver water, additional water would be retained in Oroville Reservoir at times, including during some dry years. The added water could then help supplement deliveries during droughts. During all but the driest years, Banks Pumping Plant would operate at lower average export volumes. In the driest years, export pumping would be unchanged or increased slightly relative to the proposed project and alternatives, to move additional stored water from Oroville to the California Aqueduct. In this analysis, deliveries would be slightly greater in the 12 percent of years that 1.9 million AF of water could not be delivered.

The SWP share of San Luis Reservoir would also contain more water much of the time, helping increase deliveries during the driest years when the full 1.9 million AF could not be delivered. The normal fluctuation in volume that maintains year-round deliveries in response to seasonal agricultural and M&I demands would be less, due to deliveries artificially reduced by an average of 40 percent. Low point water quality issues in San Luis Reservoir would likely be less of a concern (when the reservoir storage falls below 300,000 AF, algal growth in the surface layers affects water quality at the level where water is extracted from the reservoir, especially impacting Santa Clara Valley WD CVP deliveries).

This scenario is analyzed here as a variation of a no project condition, and flexible storage would not be available under the no project alternatives. However, if the terminal reservoirs (Castaic and Perris) could be utilized for flexible storage by the southern contractors, that flexible storage would likely be used more often, and return of the water would likely be delayed. This use of flexible storage would lead to a longer drawdown period and greater adverse environmental impacts around the reservoirs. Because of recent reductions in MWDSC's Colorado River supplies (see Response to Comment 1-1 in FEIR Section 7.1, with respect to Reclamation's comments), MWDSC would likely utilize every water supply source available and enforce water rationing to balance supply and demand.

The most serious effects of the scenario analyzed would result from a 40 percent reduction in SWP water deliveries to the 29 SWP contractors that supply water to 23 million California residents. The reduction in water supply would trigger potentially significant adverse impacts affecting up to 23 million people, and affecting over 600,000 acres of irrigated agricultural lands. The actual percentage reduction in supply experienced by these people would vary locally according to the water supply mix used by each water agency.

Many agencies would be pressured to seek alternative supplies with consequential redirected environmental impacts. The nature of those impacts is beyond the scope of this analysis, but they might involve: (1) water transfers (with added Delta export pumping, possible crop idling and associated impacts, and groundwater pumping with attendant impacts); (2) construction and use of desalting facilities (with added energy use, greenhouse gas emissions, and coastal resource impacts); (3) groundwater pumping (with impacts on other wells, more overdrafted groundwater basins, and possible ground subsidence); (4) new reservoirs (with multiple potential impacts); (5) new stream diversions (with fish, recreation, and other impacts); and (6) other water supply development actions with associated impacts.

Enforced conservation, rationing, shortages, forced landscape abandonment, abandonment of annual and permanent crops, and consequential economic impacts would also be likely to result. Some customers would forgo water use for landscaping with consequential effects on vegetation and wildlife.

As noted in the prior section, Lake Oroville and San Luis Reservoir would contain more water at times, with beneficial impacts to recreation and visual resources. Although flexible storage would presumably be unavailable under this scenario, if it were available, the terminal reservoirs (Castaic Lake and Lake Perris) would likely be drawn down for longer periods, especially for the years immediately following the imposition of the water supply reductions.

CVP supplies in the area served by the federal CVP could benefit by pumping more water from the Delta through capacity at Banks that, absent the limited delivery scenario, would be used for SWP purposes. The CVP would likely use JPOD at Banks more frequently to supplement exports at Jones and increase supplies to CVP contractors. The magnitude of this impact is

influenced by the Coordinated Operations Agreement and other factors, and therefore has not been estimated at this time.

With the Banks Pumping Plant diverting less water at times, salvage of fish species would likely be less than under the proposed project or any of the no project alternatives. The timing and extent of changes in salvage would depend on the timing and rate of Banks pumping, which would be influenced by SWP operational schedules under the scenario, use of Banks Pumping Plant for transfers, JPOD use for CVP supplies, and other factors. No estimate of net change in salvage is available absent detailed operational studies, but a reduction in salvage appears likely from preliminary analysis.

Analysis of Invoking Article 18(b) and Limited Article 21 Deliveries

Other scenarios could be examined as well, such as assuming maximum Table A deliveries at 1.9 million AF, the elimination of scheduled surplus, and retaining unscheduled surplus (interruptible) deliveries that would be provided only when SWP storage is full or at target levels, all current Table A delivery requests are being met, the Delta is in excess conditions, and added water can be pumped at Banks consistent with water quality and environmental constraints.

Such an analysis would provide an estimated annual average delivery of 350,000 AF of Article 21 water (interruptible), restoring about one-third of the cuts imposed by the no Article 21 delivery analysis. Thus this second analysis would not reduce average annual SWP deliveries quite as much as the no Article 21 delivery analysis described above, but would still reduce deliveries substantially compared to the proposed project and alternatives evaluated in the EIR by eliminating deliveries of scheduled surplus water.

The impacts of this analysis would be similar in all respects to the no delivery analysis, except that the average annual total delivery reduction to SWP contractors would be about 870,000-904,000 AF instead of about 1,200,000 AF. The distribution of water would be skewed under this alternative, with those contractors with local storage and the ability to hold winter deliveries for later use benefiting, and those contractors unable to use the seasonal Article 21 deliveries receiving no supply benefit relative to the no Article 21 delivery analysis.

### 9.2.6 State Water Project Delivery Reliability Report

Comments discussed in this section generally include: 17-1, 21-44, 21-45, 22-23, 22-24, 22-26, 30-10, 30-17, 30-28, 30-58, 30-61, 30-101, 30-102, 30-103, 30-104, 30-105, 30-115, 31-4, 35-5, 36-9, 36-10, 36-11, 36-12, and 56-1.

Some comments on the Reliability Report relate to the relationship of the Reliability Report to this EIR, especially the elimination of Article 18(b). Others criticize the process used in developing the Reliability Report or the methodology used in the Reliability Report. Others suggest that the Reliability Report be used as a form of mitigation for decisions made on water availability at the local level.

#### 9.2.6.1 Relationship of the Reliability Report to Monterey Plus EIR

Some of these comments address the content and use of the Reliability Report and not the content of the DEIR. However, the issues raised are very closely related to the issues raised by the elimination of Article 18(b) and whether the elimination of Article 18(b) leads local decision-makers to permit development based on unrealistic expectations of water reliability. The DEIR in Chapter 9 discussed the relationship of Article 18(b) and Water Reliability and Chapter 11

analyzed two no project alternatives that invoked Article 18(b). The FEIR further discusses the elimination of Article 18(b), especially as it relates to water reliability, in Subsection 9.2.5.1 and as stated in FEIR Subsection 9.2.3, like most other surface water supplies, SWP supplies fluctuate, so in some years more water may be available and in other years less water may be available. The Department considers processes such as the Reliability Report (which addresses the impact of climate change and Delta pumping restrictions) and other means of urban water management planning to be a more effective means of making local government aware of the variability and limitations of the SWP water supply.

As explained in DEIR Chapter 9 Reliability of Water Supplies and Growth (page 9-2), as part of the Settlement Agreement, the Department agreed to publish The State Water Project Delivery Reliability Report every two years and distribute it to all SWP contractors and all city, county, and regional planning departments within the SWP service area. As expressed in the Settlement Agreement, the purpose of the Reliability Report is to provide current information to SWP contractors and to planning agencies regarding the overall delivery capability of the existing SWP facilities under a range of hydrologic conditions and supply availability to each contractor in accordance with other provisions of the contractor's contracts.

With respect to the information provided in the Reliability Report, the DEIR on page 9-9 noted that the Reliability Report discussed the ability of the SWP to deliver water. The *2005 State Water Project Delivery Reliability Report* defines water reliability as "…how much one can count on a certain amount of water being delivered to a specific place at a specific time." Factors that contribute to water reliability include the availability of the water from the source, ability to convey water from the source to the desired point of delivery, and the magnitude of demand for the water.[1] Public planning agencies, water providers and members of the public have access to the information contained in the Reliability Report. The 2007, 2005, and 2002 State Water Project Delivery Reliability Reports can be found at http://baydeltaoffice.water.ca.gov/ swpreliability.

### 9.2.6.2 Public Review of the Reliability Report

Some comments suggest that an opportunity for public review and the response to comments on the Reliability Report should be required by legislation or some other means. The publication of the Reliability Report, including public input, is a separate process from the DEIR process for the proposed project. Although not required by the Settlement Agreement or by any other legal mandate, all of the draft reports have been made available for public comment. The Department has reviewed the comments received on the draft reports, responded to all comments, and made modifications it considers appropriate in the final Reliability Report.

### 9.2.6.3 Adequacy of the Reliability Report

Several comments questioned the adequacy of the Reliability Report. As discussed in FEIR Subsection 9.2.6.2, members of the public have an opportunity to communicate with the Department any concerns they may have about the adequacy of the Reliability Report and the Department has responded to each comment received. In dealing with a report like the Reliability Report, it is not unusual that there would be differences of opinion on what should be in the Reliability Report and on the analysis and conclusions. The Department has considered the comments received, made changes as it deems appropriate and provided factual support for its decision not to make other changes.

1. California Department of Water Resources. 2008. *2007 State Water Project Reliability Report*, August. page 19.

## Climate Change and Changes to Regulatory Restrictions

Some comments suggest that the Department's estimates of SWP reliability need to include an analysis of climate change and an analysis of more restrictive environmental protections which will affect State water supplies. The 2007 Reliability Report does both.

As discussed in DEIR Chapter 12, Climate Change, the 2005 update to the California Water Plan contains an analysis of future water demands resulting from population growth, and additionally attempts to address potential impacts resulting from global climate change. The 2007 Reliability Report acknowledges the effect climate change could have on State water supplies and provides four scenarios for rainfall and runoff to develop the range of delivery estimates for the future. It also presents SWP operations under two levels of Delta export restrictions that reflect the range of constraints specified in the interim Wanger decision. These updates are also discussed in FEIR Chapter 7.2 Fisheries and Chapter 12 Climate Change.

## Estimates of Water Reliability and Article 21 Water

Another comment suggested that the Reliability Report should not include Article 21 water estimates; more specifically Comment 30-61 says that "to partially prevent growth inducing impacts, the EIR can require the Department to provide a clear statement that Article 21, transfers of Article 21 and reliance on Turnback Pool water are not reliable sources of water and that such sources of water are not suitable for support of permanent economy including development. To avoid any confusion, the EIR should commit the Department to excluding these sources of water from the Reliability Report" and "to partially mitigate impacts associated with eliminating Article 18(b), the EIR should commit the Department to provide explicit guidance on how to interpret reliability curves included in the SWP Delivery Reliability Report." Some comments also state that the Reliability Report overestimates feasible deliveries.

The Department agrees that, in general, Article 21 water and Turnback Pool water are not reliable sources of water in terms of a long-term water supply. In the absence of storage, interruptible supplies of Article 21 and Turnback Pool water are not likely to contribute to local water supply reliability because of their intermittent and unpredictable nature. To the extent that Article 21 water, Table A water above current demands, or local supplies are placed in storage, that water can become more reliable for drought use, and could support additional population growth to the extent that the banking contractor relies on future extraction of the banked water in its water supply planning activities. See discussion in FEIR Subsection 9.2.5.2.2. As discussed below, the Department considers the Reliability Report to have made a clear statement on the limitations of Article 21 water. It also considers the Reliability Report to accurately estimate feasible deliveries and to have an adequate explanation of how readers of the Reliability Report should interpret reliability curves. Issues relating to comments on Article 18 and Article 21 are discussed Chapters 13 and 14 of this FEIR and in FEIR Subsection 9.2.5.

With regard to interpreting reliability curves, the Department considers the Reliability Report as a whole to be a guide to understanding the variability of SWP water supply under varying circumstances. The Department does not agree with the statement that the Reliability Report overstates feasible deliveries. The 2007 Reliability Report provides estimates of the probability of Table A deliveries for two possible scenarios affecting SWP Delta exports. It discusses the factors affecting water reliability including availability of source water, ability to convey source water to the desired points of delivery, and the demand for water, including factors of uncertainty for each factor. It also discusses other limitations to estimating future water delivery reliability. As explained in the 2007 report, delivery estimates have been reduced from those in the 2005 report.

The 2007 Reliability Report clearly communicates the conditional nature of Article 21 deliveries in a number of places. The first mention of Article 21 in Chapter 4 includes a footnote listing the limitations of Article 21. Chapter 5 discusses the limited conditions under which Article 21 deliveries can occur and also points out, in the absence of storage, Article 21 water is not likely to contribute to local water supply reliability. Tables in Chapter 6 clearly demonstrate the variability and uncertainty of Article 21 water. The Department believes that incorporating supplies received under Article 21 into the assessment of water supply reliability is a local decision based on specific local circumstances, facts and level of water supply reliability required. Article 21 water is presented separately in the Reliability Report so local agencies can determine whether it is appropriate to incorporate this supply into their analyses. As discussed in FEIR Chapter 15, Water Supply Management Practices, the Turnback Pool is used less and less, and most past sales have been from M&I contractors to agricultural contractors.

### 9.2.6.4 Use of the Reliability Report by Local Entities

Some comments contend that the Reliability Report does not take into consideration the presence or absence of local water sources nor does it provide adequate instruction to local government on how to use the Reliability Report in local decision-making. An example is given (Comment 22-26) that many contractors take their cue from the Reliability Report and rely on a percentage given in the report that is calculated based on the SWP being able to deliver Table A to KCWA and MWD during low demand periods because they have large reservoirs to store water beyond immediate needs, while other contractors do not have similar storage facilities so the average amount they can actually rely on for planning purposes is less.

The comment also states that any development that solely relies on SWP supply can not depend on average annual amounts and must look at the lowest delivery level in the record in making its decisions. The comment further recommends that the Department needs to instruct its SWP contractors on how to use the information developed by them respecting each individual contractor's ability to receive SWP water in concert with whatever other water sources it has available. A further suggestion (Comment 30-105) is that the Department should standardize UWMP reporting, requiring the use of single and multiple worst years for each supply and requiring local agencies to combine worst-case scenarios for each supply source. Comment 30-61 also suggests that the DEIR should commit the Department to provide explicit guidance on how to interpret reliability curves included in the Reliability Report.

The Reliability Report does not identify a specific percentage of contractors' Table A amounts that water users should consider in analyzing their local water supply. Rather it provides a number of percentages that allow contractors to calculate the amount of water the SWP can deliver to them under certain hydrologic and other conditions. The purpose of the Reliability Report is to present the Department's current information regarding the potential annual water delivery of the SWP for existing and future conditions. The Reliability Report recognizes that each contractor and all users of SWP water must consider their local needs and resources, how to integrate SWP supplies and local supplies, and how local water supplies could be improved. The Reliability Report includes a chapter which describes how the information in the Reliability Report can be used by SWP contractors, and city, county and regional planning departments within the SWP service area.

In addition, the Department provides other tools that can help SWP contractors and local government in determining the adequacy of local water supplies. These tools include A Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan and a Draft Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001. They also include The California Water Plan (Bulletin 160). A key objective of the California

Water Plan is to provide guidance to local government agencies and regional partnerships on ways to increase regional self sufficiency in meeting their future water demands. The California Water Plan includes a diverse set of resource management strategies that can be implemented in different combinations to provide water supply reliability and to meet other water resource related management needs in different regions of the state.

## 9.3 RESPONSES TO INDIVIDUAL COMMENTS

### Response to Comment 6-16

The comment states that the DEIR has failed to adequately disclose why the contractors do not want to reduce the Table A amounts. It also says that the EIR should explain why the allocation of certain SWP costs and water shortages cannot be accomplished through invocation of Article 18(b). See FEIR Subsections 9.2.2, 9.2.3, and 9.2.5. See also Response to Comment 6-16 in FEIR Chapter 13.

### Response to Comment 16-35

The comment suggests text changes to the DEIR to clarify that the Reliability Report is not only made available to local planners, it is required to be distributed to all city, county, metropolitan, and regional planning departments within the SWP service area and is available to the public on the Department's website. Therefore, the first full paragraph on page ES-8 of the DEIR is revised to read:

> However, even if a "paper water" problem did arise from land use planners relying on the Table A amounts, the passage of SB 610 and 221 and the publishing of the biennial State Water Project Delivery Reliability Report have led to better information dissemination to local planners regarding the reliability of SWP supplies. The State Water Project Delivery Reliability Report is not only made available to local planners, it is distributed to all city, county, metropolitan, and regional planning departments within the SWP service area. Further, it is available to the public from the Department's website: http://baydeltaoffice.water.ca.gov/swpreliability.

### Response to Comment 17-1

The comment states that the DEIR does not adequately address the deletion of Article 18(b) and suggests that the Department should have implemented Article 18(b) due to the project not being developed as planned.

See FEIR Subsection 9.2.2 for a discussion of the terminology relating to Table A amounts, Article 18(b) and Article 21, including Article 21(g)(1). See FEIR Subsection 9.2.3 for a discussion of the shift from using firm yield to current delivery probability for water supply planning. See FEIR Subsection 9.2.5 (which is the same as FEIR Subsection 13.2.2.3) on the elimination of Article 18(b) and Article 21(g)(1). See Subsections 9.2.4 and 9.2.6 which discuss reliability planning. See FEIR Subsection 9.2.1 for comments outside the scope of the EIR. See FEIR Chapter 13 on Article 18 and FEIR Chapter 14 on Article 21. See FEIR Chapter 8 for a discussion of the growth inducing impacts of the proposed project.

*Scope of the proposed project* - The DEIR stated on page 4-1 that the purpose of the proposed project is to resolve the underlying issues that led to the Monterey Amendment and implementation of the Settlement Agreement. The underlying fundamental purpose of the Monterey Agreement and the Monterey Amendment is to resolve conflicts and disputes

between and among the urban and agricultural SWP contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. The primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. See FEIR Subsection 5.2.1.2. The primary elements of the Monterey Amendment relate to arrangements between and among the contractors and the Department with regard to the SWP long-term water supply contracts. These include how SWP financing rates are restructured; how SWP water is allocated among contractors; how water supply management practices regarding water deliveries can be facilitated in conjunction with local supplies; and transfer of the KFE property to the KCWA to be developed and used as a local groundwater storage facility. See FEIR Subsection 4.2.1.1.

This EIR examines changes resulting from the proposed project (the Monterey Amendment and the Settlement Agreement) and its potential environmental impacts. It is not an EIR on all the operations and impacts of the SWP or on the all of the problems regarding the Delta or relating to land use and water supply. Ongoing conditions and activities are part of the "environment" in which the proposed project will operate and may affect the magnitude of impacts of the proposed project on the environment. Changing conditions, such as changes in demand, demand reduction, climate change and other hydrological conditions, and environmental constraints can be characterized as a change in future conditions under which the proposed project will operate. The proposed project does not cause these changes to occur. These ongoing and changing conditions and their effect on the proposed project or the proposed project's effect on them were discussed in the DEIR in relevant Sections of Chapters 7 and 10. The proposed project would not result in added Delta diversions above levels permitted at the time of diversion. Changing conditions may result in less water available to the SWP for export and, therefore, fewer impacts than those disclosed in the DEIR. See FEIR Subsection 6.2.2.2 on changing conditions. See also FEIR Subsection 14.2.3 on types of water and demand and FEIR Subsection 7.2.2.1.3 on environmental compliance.

*Alternatives* - The DEIR examined four no project alternatives, including two alternatives implementing Article 18(b). It also examined other alternatives that would meet most of the objectives of the proposed project, result in fewer significant adverse environmental impacts and that could be feasibility accomplished in a reasonable time. It did not examine alternative projects that would meet different objectives. Alternative projects that do not meet project objectives include operating the SWP for environmental and growth control purposes. The Department did consider an Environmental Enhancement Alternative with reduced pumping of water supplies; however, it did not meet the screening criteria as described in Subsection 11.1.2 of the DEIR. Also see FEIR Subsection 11.2.3.2 on Alternatives Considered but Not Analyzed in Detail and FEIR Subsection and 11.2.4 which discusses reduced demand and reduced exports. See FEIR Subsections 5.2.1.2 and 5.2.3.1 which discuss the Department's obligation in considering alternatives and objectives.

*Invocation of Article 18(b) and reduced exports* - As discussed in FEIR Subsection 13.2.2, invocation of Article 18(b) is not part of the proposed project. It is a no project alternative. Invocation of Article 18(b) would not mean that more water would remain in-stream; the same amount of water would be exported. The Department optimizes pumping through Banks Pumping Plant and delivers that water to the contractors under its permits consistent with applicable regulatory constraints. If Article 18(b) were invoked, the classification of the exported water would be different than under baseline conditions. With the invocation of Article 18(b), less water would be classified as Table A water and more water would be classified as Article 21 and possibly as other types as well. FEIR Subsection 13.2.2 clarifies the explanation in the DEIR on why Article 21 water would continue to be delivered even if Article 18(b) and

Article 21(g)(1) were not eliminated. FEIR Subsection 9.2.5.3 also includes an analysis of the effects of operating the SWP with Article 18(b) invoked and limited or no Article 21 water delivered to SWP contractors. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative.

*Water reliability/ability to respond to shortages* - As stated in the DEIR on page 9-11, the "paper water" problem is really a question of whether local planners recognize the limitations on the reliability of SWP supplies and more specifically whether the Monterey Amendment contributed to misunderstandings of water reliability. Like most other surface water supplies, SWP water supplies fluctuate, so in some years more water may be available and in other years less water may be available. The Department has determined that invocation of Article 18(b) and returning to the application of the concept of safe or firm yield in determining the amount of Table A that can be reliably allocated each year, except in extreme droughts, is not a reasonable way to protect the Delta or to make local government aware of the variability and limitations of SWP water supply. Such an action would not alter Delta exports, would not alter water supply reliability, nor would it alter the total amount of SWP water allocated to contractors. The action would decrease Table A allocations and commensurately increase Article 21 allocations, both as scheduled surplus and as unscheduled (interruptible) supplies. See FEIR Subsection 9.2.3 (same as 13.2.2.3).

As discussed in FEIR Chapter 7, Subsection 7.2.2.1.3, the Department considers current regulatory processes and evolving Delta constraints to be the appropriate means of protecting the Delta and other environmental resources. As discussed in FEIR Chapter 9, Subsections 9.2.4 and 9.2.6, the Department considers processes such as the Reliability Report (which addresses the impact of climate change and Delta pumping restrictions) and other means of urban water management planning to be a more effective means of making local government aware of the variability and limitations of the SWP water supply. See FEIR Subsection 9.2.3 (same as 13.2.2.3).

FEIR Subsection 9.2.5.1 and 9.2.5.2 summarize and clarify the conclusions of the DEIR that use of Article 21 water and elimination of Article 18(b) and Article 21(g)(1) do not contribute to a "paper water" problem and explain why the Department has determined that invocation of Article 18(b) and returning to the application of the concept of safe or firm yield in determining the amount of Table A that can be reliably allocated each year, except in extreme droughts, is not a reasonable way to protect the Delta or to make local government aware of the variability and limitations of SWP water supply.

See also Response to Comment 17-1 in FEIR Chapter 13.

## Response to Comment 17-2

The comment states concerns with the analysis of Article 21 if Article 18(b) were invoked. The comment also claims that contractors have become dependent on surplus water supplies. See FEIR Subsections 9.2.2 and 9.2.5. See also Response to Comment 17-1 and Response to Comment 17-2 in FEIR Chapter 14.

## Response to Comment 17-12

The comment raises questions about the analysis of the provisions of Articles 18 stating that the analysis should include a discussion of reduction in supplies to the contractors. See FEIR

Subsection 9.2.5 and Response to Comment 17-1. See also Response to Comment 17-12 in FEIR Chapter 13.

## Response to Comment 21-10

The comment raises questions about the analysis of the provisions of Articles 18 and 21, stating that implementation of Article 18(b) and Article 21(g)(1) prohibitions is a important safety valve that would operate to maintain the long term sustainability of the SWP. See FEIR Subsections 9.2.2, 9.2.3 (same as 13.2.2.3) and 9.2.5 on elimination of Article 18(b) and Article 21(g)(1) and Response to Comment 17-1. See also Response to Comment 20-10 in FEIR Chapter 13.

## Response to Comment 21-44

The comment suggests that the DEIR relies on the Reliability Report to explain why there is no longer a paper water problem and it is, therefore, a form of mitigation. The comment suggests that since the report is not subject to public oversight nor is it a legally enforceable constraint as would be the case for a true mitigation measure, subsequent drafts of the DEIR should formally incorporate the Reliability Report, allowing for public input and judicial review of the document.

As discussed on page 9-2 of the DEIR, analytical methods used in the DEIR to explore the possibility of a “paper water” problem included a review of documents that are or could be used by local planning entities to plan and approve growth, including the Reliability Report. The Reliability Report was only one source (although a very important one) among numerous sources used in the DEIR Chapter 9 analysis (see the discussion on pages 9-2 through 9-9). These sources of information are not relied upon as mitigation but as evidence that planners today have more detailed, realistic, and readily available SWP delivery information and as evidence that elimination of Article 18(b) would not have an effect on urban growth and would not create a “paper water” concern.

See FEIR Subsections 9.2.4, 9.2.6.2, and 9.2.6.3.

## Response to Comment 21-45

The comment states that the DEIR says that there is no longer a paper water problem because local planners recognize that it is important to incorporate limitations on the reliability of the SWP into their planning efforts. The comment rephrased the conclusion of the DEIR. The DEIR did not say there is no longer a paper water problem. It states “even if a ‘paper water’ problem did arise from land use planners relying on Table A amounts, the passage of SB 610 and 221 and the State Water Project Delivery Reliability Report have led to better information dissemination to local planners regarding the reliability of SWP supplies.”

The comment further states that the analysis in Chapter 9 is flawed for the following reasons: (1) the DEIR does not make an effort to address the issues first hand; including the fact that pre-Monterey contracts contained important mechanisms designed to counteract the absence of reasoned assessments of water supply availability thorough Articles 18(b) and 21(g)(1); and (2) the elimination of Article 21(g)(1), which previously required the Department to refrain from delivering surplus water that would tend to encourage the development of an economy within the area served by such contractor or non-contractor which would be dependent upon the sustained delivery of surplus water, thereby creating a new type of paper water by allowing local decision-makers the freedom to choose when and how to allow Article 21 water to support permanent developments. See FEIR Subsections 9.2.1, 9.2.4, 9.2.5, 9.2.6, and Response to Comment 17-1.

## Response to Comment 21-54

The comment infers that by eliminating Article 18(b) the project has relinquished a tool that would enable the SWP to respond better to permanent shortages, and instead relies on the Department's Reliability Report. See FEIR Subsections 9.2.3, 9.2.5, and 9.2.6 and Response to Comment 17-1. See also FEIR Subsection 6.2.2.2 and FEIR Chapter 12 for more discussion on the effect of Climate Change.

## Response to Comment 22-17

The comment states that the DEIR should analyze the impact of the surplus provision in creating "paper water." See FEIR Subsections 9.2.2 and 9.2.5, especially 9.2.5.2, and the Response to Comment 17-1. See also Response to Comment 22-17 in FEIR Chapter 14.

## Response to Comment 22-23

This comment states that the analysis in the DEIR fails to meet the requirement of the court (in *PCL v. DWR*) to analyze the consequences of "utilizing the eliminated provisions to bring promises of delivery in accord with the project's capability to deliver." The comment focuses on DEIR Chapter 7.10-1, Land Use and states that the DEIR analysis considers the impact on areas from which water under the Monterey Amendment is transferred, but does not consider the impact on the areas to which the water is delivered and gives an example of a the Castaic Lake WA purchase of Table A amounts which the commenter thinks should be considered.

DEIR Chapter 7.10 analyzes the direct impacts of the Monterey Amendment on land use resources that are primarily located in areas from which water is transferred. Impacts on the area to which water is transferred are discussed in both the DEIR and this FEIR in Chapter 8 Growth Inducement, and questions relating to water reliability are discussed in both the DEIR and FEIR in Chapter 9 Reliability of Water Supplies and Growth.

The effects of the Table A retirements, transfers, and the revised water allocation procedures on average annual deliveries to individual contractors were calculated using a spreadsheet model to allocate the total estimated annual water supply values for the 73-year modeling period derived from CALSIM II model output. See DEIR page 8-7. While the Department recognizes that the CALSIM II model has some limitations, the Department considers it appropriate for estimating the annual amount of water available to the SWP for allocation in the various hydrologic year types. These annual SWP supply numbers then formed the basis for the spreadsheet computations estimating the resulting Table A and Article 21 deliveries to the contractors under each alternative resulting from Table A transfers, retirements, and revised allocation methods. See FEIR Chapter 6 Subsection 6.3.2.4, Analytical Methods Including CALSIM. See DEIR pages 8-8 through 8-11. See also FEIR Subsection 8.2.1 for more discussion on methods and assumptions. See FEIR Subsection 9.2.1 on local land use planning decisions, 9.2.5 for a discussion on elimination of Article 18(b) and Article 21(g)(1) and Subsections 9.2.4 and 9.2.6 for use of the Reliability Report by local agencies.

The comment also criticizes the accuracy and use of the CALSIM II model used in the DEIR. See the Response to Comment 22-24.

## Response to Comment 22-24

This comment states that reliable water claimed in the transfers under the proposed project depend on CALSM II calculations and because CALSIM II has been proven inaccurate as a

calculator of reliable water, its use only continues the paper water concern. The DEIR used the CALSIM II model for comparative studies of the total amount of water that might be available for allocation to contractors in 2003 and 2020 conditions under the proposed project and alternatives. As discussed in Response to Comment 22-23, the effects of the Table A retirements, transfers, and the revised water allocation procedures on average annual deliveries to individual contractors were calculated using a spreadsheet model to allocate the total estimated annual water supply values for the 73-year modeling period derived from CALSIM II model output. CALSIM II was not used for absolute predictions. If the analyses in the DEIR overestimate the amount of water available through transfers and other Monterey amendment changes, those analyses also overestimate the environmental impacts of the proposed project. Because the proposed project was implemented in 1996, post-Monterey Amendment SWP operations and deliveries to individual contractors in the period 1996 to 2005 are part of the historical record that was used to examine Monterey-induced changes in SWP operations. Thus the historical analysis includes no overestimates of delivery for that period. Please see DEIR Subsection 6.4.2 and FEIR Section 6.3, especially Subsection 6.3.2.4 for a discussion of the use of the CALSIM II model for the EIR analysis.

The analytical methods used to calculate the potential effects of the Monterey Amendment on growth are discussed in DEIR Sections 8.2 and 8.3, starting on page 8-6. The Castaic Lake WA Table A purchase is included in the analysis. See also FEIR Chapter 8, especially Subsection 8.2.1 for more discussion on methods and assumptions relating to the growth inducement analysis.

The estimates of the amount of water that could be available for allocation in any future year type in the DEIR are for the purposes of comparing one alternative or scenario to another and are not intended to be used as a predictor of reliability. As discussed in FEIR Subsection 9.2.4.4, effectiveness of current measures relating to water reliability, the DEIR points out that land use decisions are not made in a vacuum, relying only on a Table A number found in the long-term SWP water supply contracts. There are many other factors local decision-makers consider. See FEIR Subsections 9.2.4 and 9.2.6 which discuss water reliability planning.

## Response to Comment 22-26

The comment contends that the Reliability Report does not take into consideration the presence or absence of local water sources. The comment also contends that certain contractors take their cue from the Reliability Report and use a single reliability percentage such as 75 percent reliability of Table A because they can store water to bridge dry periods, while other contractors do not have similar storage facilities and must plan for dry years with 15 percent deliveries. The comment also states that any development that solely relies on SWP supply can not depend on full Table A allotment and that the Department needs to instruct its SWP contractors on how to use the information in the Reliability Report. See FEIR Subsection 9.2.6.4.

## Response to Comment 30-4

The comment claims that the DEIR does not adequately analyze Article 18(b). See FEIR Subsection 9.2.5 and Response to Comment 17-1. See also Response to Comment 30-4 in FEIR Chapters 4 and 13.

## Response to Comment 30-10

The comment claims that the DEIR potentially violates CEQA including the fact that it avoids a required discussion of the project's creation of new paper water arising from a variety of

sources, including the "redefinition" of Article 21, administrative changes to the SWP, and an overstatement of feasible deliveries in the Reliability Report. See FEIR Subsections 9.2.1 through 9.2.6, especially 9.2.6.3. See also the Response to Comment 17-1.

### Response to Comment 30-16

The comment states that the (*PCL v. DWR*) court held that an adequate EIR must analyze the impacts of implementing and eliminating Article 18(b). See FEIR Subsection 9.2.5 and Response to Comment 17-1. See also Response to Comment 30-16 in FEIR Chapters 11 and 13.

### Response to Comment 30-17

The comment notes that the relationship between so-called "entitlements" and land-use planning was central to the (*PCL v. DWR*) court's holding that the original EIR failed to address the no project alternative. See Response to Comment 17-1. See FEIR Subsections 9.2.1, 9.2.4, 9.2.5, and 9.2.6. See especially FEIR 9.2.4.1 for a discussion of the court's holding in *PCL v. DWR*. The Department considers the analysis presented in the DEIR to be adequate for purposes of CEQA and consistent with the Court of Appeal's ruling.

### Response to Comment 30-22

The comment states that *PCL v. DWR* and the Settlement Agreement require the EIR to include an analysis of the impacts of a no project alternative implementing Article 18(b) and the impacts of eliminating Article 18(b) and Article 21(g)(1). See FEIR Subsections 9.2.3 and 9.2.5 and Response to Comment 17-1. See also Response to Comment 30-22 in FEIR Chapters 11 and 13.

### Response to Comment 30-24

The comment states that the DEIR is incorrect in assuming that demand for SWP water in the Monterey and non-Monterey scenarios would be the same because the Monterey Amendment deletes Article 21(g)(1). See FEIR Subsection 9.2.5, especially 9.2.5.2 and Response to Comment 17-1. See also FEIR Subsection 15.2.3 regarding any increase in demand resulting from the Monterey Amendment. See also Response to Comment 30-24 in FEIR Chapter 11.

### Response to Comment 30-26

The comment discusses its view of the pre-Monterey Article 18 provisions and their implications, and states that the DEIR fails to recognize that perceived and explicit disclosure of water reliability can impact demand for SWP water. See FEIR Subsection 9.2.2 and 9.2.5, especially 9.2.5.1, and Response to Comment 17-1. See also Response to Comment 30-26 in FEIR Chapter 13.

### Response to Comment 30-27

The comment claims that Article 21(g)(1) provided a safety valve against paper water-based development and that it provided decision-makers with a clear understanding that deliveries beyond the SWP's minimum yield are unreliable. See also FEIR Subsections 9.2.2, 9.2.3, 9.2.5 and Response to Comment 17-1. See also Response to Comment 30-27 in FEIR Chapter 14.

## Response to Comment 30-28

The comment states that the DEIR incorrectly assumes that all water provided by the SWP, either Table A, article 21 or otherwise would be used in the same manner and would procure equal demand regardless of the explicit disclosure of reliability by the State and that the DEIR is thereby assuming that SWP contractors are able to utilize very unreliable water in the same way they demand very reliable water. See FEIR Subsections 9.2.1 through 9.2.6 and Response to Comment 17-1. See FEIR Chapter 13, on Article 18, including the invocation of Article 18(b), FEIR Chapter 14 on the nature and use of Article 21 water and FEIR Subsection 15.2.3 for a summary of issues relating to demand.

## Response to Comment 30-50

The comment claims that the DEIR does not analyze the impacts resulting from the allocation changes to Article 21 water and the elimination of Article 21(g)(1). See FEIR Subsections 9.2.2, 9.2.3, and 9.2.5 and Response to Comment 17-1. See also Response to Comment 30-50 in FEIR Chapter 14.

## Response to Comment 30-58

The comment notes that the DEIR virtually ignored everything that PCL submitted to the Department on the subject of water supply reliability and growth during the years of the EIR planning that preceded the public draft. The comment therefore references its previous submissions (Appendix A of Letter 30) on this issue and requests specific responses. The comment further notes that the analysis contained in the DEIR is not consistent with the Court of Appeal's opinion in *PCL v. DWR* and that it is fatally flawed based on a number of items discussed in the comment.

The Department does not agree that the DEIR ignored everything that PCL submitted to the Department on the subject of water supply reliability and growth during the years of the EIR planning that preceded the public draft. In fact, as the previous submissions in Appendix A of Letter 30 and the responses to those comments below show, the Department listened to the comments and changed, modified and added to its analysis on the basis of the comments. In some instances, as discussed in Master Response 9.2.4, the Department disagreed with the approach or conclusions of PCL or determined that the suggestions were not within the scope of the Monterey Amendment Plus EIR. To disagree does not mean the Department ignored the suggestions. The Department has considered and responded to the suggestions made by PCL. The Department considers the analysis presented in the DEIR to be adequate for purposes of CEQA and consistent with the *PCL v. DWR* court's ruling. See FEIR Subsections 9.2.1, 9.2.4, 9.2.5.1, 9.2.5.2, and 9.2.6 and Response to Comment 17-1.

## Response to Comment 30-61

The comment suggests that, to partially mitigate growth inducing impacts, the EIR can require the Department to provide a clear statement that Article 21, transfers of Article 21 and reliance on Turnback Pool water are not reliable sources of water and are not suitable for support of permanent economy, including development. The comment suggests excluding these sources of water from the Reliability Report. See FEIR Subsection 9.2.6.3.

It also states that, to partially mitigate impacts associated with eliminating Article 18(b), the EIR should commit the Department to provide explicit guidance on how to interpret reliability curves in the Reliability Report. See FEIR Subsection 9.2.6.4.

The comment suggests that, to partially mitigate potential impacts to the Delta from increased pumping of Article 21 water, the EIR can prohibit declaration of Article 21 when fish agencies determine that there would be a threat to fish species from the export of such water. The Department has determined that its commitment to continue to operate the SWP facilities in compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will minimize, avoid and/or reduce potential effects on the Delta aquatic environment from the proposed project now and in the future to a less than significant level. See FEIR Subsection 7.2.2.1.3.

The comment suggests that, to partially mitigate for the loss of statewide oversight of the use of SWP water, the EIR should commit DWR to providing full disclosure of accounting, pumping and delivery of SWP water to the public in a timely (weekly) basis. The Department does not agree that there has been any loss of statewide oversight of the use of SWP water. The comment suggests that, to partially mitigate for the loss of the KFE as a public trust resource, the EIR should impose conditions requiring that public trust agencies will have priority for the capacity of the KFE for the storage of water to protect public trust resources including the health of the Delta.

The DEIR did not identify any unmitigated impacts that would result from the transfer of the KFE property. The DEIR examined three no project alternatives which included a KFE operated for SWP purposes. It also rejected two alternatives that would have required operation of a KFE to meet environmental and other objectives. One alternative would assume state ownership and operation to enhance dry-year reliability. The other would allow the KWB Lands to remain in local control subject to operational and financial criteria designed to maximize environmental benefits. At the time of the Monterey Amendment, the Department owned the KFE property. It had considered a number of options for the lands including the option of transferring the lands to local control. The intent of a State-owned and KWBA-owned KWB Lands was identical as far as land use to develop a water recharge and recovery facility, providing intermittent wetlands. At the time of the transfer there was no operation of the lands as a water bank, and no SWP stored on the property. While the Department and contractors could have chosen a broader project and objective such as a variety of uses of the bank, they did not and they were under no obligation to do so. See FEIR Subsections 16.2.2 and 16.2.5. See FEIR Subsection 5.2.3.1 regarding the fact that the EIR does not need to consider broader objectives. See also Response to Comment 30-44 in FEIR Chapter 11.

The comment also states that impacts caused by increased demand for SWP water to offset dry year reductions by municipal contractors would not be addressed by the proposed mitigation measures above. As discussed above in the third bullet, the Department has determined that its commitment to continue to operate the SWP facilities in compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will minimize, avoid and/or reduce potential effects on the Delta aquatic environment from the proposed project now and in the future to a less than significant level. See FEIR Subsection 7.2.2.1.3. See FEIR Subsections 5.2.3 and 11.2.4.1 on the issue of whether the Monterey Amendment increased demand.

## Response to Comment 30-74

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input

by the EIR Committee. Comment 30-74 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a draft action outline for forthcoming "Attachment B" guidelines. Section VII.D and Attachment B of the Monterey Settlement Agreement require DWR to develop "guidelines to assist Municipal and Industrial Contractors in providing accurate information to land-use planning agencies with jurisdiction within the Contractors' respective service areas regarding local and regional programs to manage or supplement SWP supplies" (Attachment B, paragraph 2) and to provide "assistance to enable all Municipal and Industrial Contractors to provide complete and accurate information to relevant land-use planning agencies to assure that local land-use decisions reflect accurate information on the availability of water from state, local and other sources" (Attachment B, paragraph 3). The Settlement Agreement (Section VII.D) allows DWR to rely on DWR publications previously issued to comply with paragraph 2 of the Attachment B Principles, if appropriate.

See FEIR Subsection 9.2.4 and 9.2.6. See also FEIR Chapter 6.3 regarding the use of CALSIM for the EIR.

## Response to Comment 30-100

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-100 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in February 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the PCL's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of a chapter entitled Paper Water and Growth. The substance of the chapter was included in the DEIR in Chapter 9. The letter stated that the analysis sidestepped the substance of criticisms that plaintiffs' representatives had articulated in EIR meetings for over a year and that there were core deficiencies in both the methodology and the analysis in the chapter and that it failed to meet the Department's duties articulated in the Court of Appeal's *PCL v. DWR* decision, failed to meet the commitments the Department made in the Settlement Agreement, and failed to satisfy CEQA. See Response to Comment 30-58. See also FEIR Subsection 9.2.4, 9.2.5, and Response to Comment 17-1.

## Response to Comment 30-101

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-101 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in February 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft

of a chapter entitled Paper Water and Growth. The substance of the chapter was included in the DEIR in Chapter 9. The substance of the comment is directed to what the comment calls improper narrowing of the "paper water" definition and includes several points responded to below.

The comment states that the theme of the draft assumes that paper water is only involved when a contractor presumes it will get the full amount of Table A water. To the extent that the earlier draft of Chapter 11 may have implied that the term "paper water" only applied when a contractor assumed that it would get the full amount of Table A water, this approach was not included in the DEIR. Page 9-1 of the DEIR states that: "the possibility of decision-makers approving urban developments that would have been approved if they had a more realistic idea of water availability from the SWP was termed a "paper water" problem because reliance is arguably placed on water that exists only on paper in the SWP long-term water supply contracts." The analysis on pages 9-5 to 9-11 makes it clear that the analysis in the DEIR addresses whether local decision-makers consider the whole spectrum of SWP water availability including differences in SWP delivery capability and differences in hydrologic year types, whether they consider both average deliveries and drought period deliveries, how they integrate different sources of water in water supply planning, and how this information is made available to local decision-makers.

The comment also states that the *PCL v. DWR* court suggested that "DWR should by simulation determine what level of Table A reductions would lead to an acceptable level of Article 18(a) short term reductions, taking into account both the magnitude and frequency of such Article 18(a) reductions." Working with the plaintiff and contractor representatives, the Department developed two no-project alternatives that considered implementation of Article 18(b) as suggested by the court. See FEIR Subsection 6.3.2.2. These no-project alternatives and their relationship to Article 18(a) short-term reductions are discussed in Chapter 11 of the DEIR. The proposed project and the alternatives analyze a variety of year types including magnitude and frequency of reductions. For more discussion on the elimination of Article 18(b), see FEIR Chapter 13. For more discussion on the Article 18(b) no-project alternatives, see FEIR Chapter 11. See FEIR Subsections 9.2.1, 9.2.4, 9.2.5, and 9.2.6 and Response to Comment 17-1.

## Response to Comment 30-102

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-102 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in February 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of a chapter entitled Paper Water and Growth. The substance of this early chapter was included in the DEIR in Chapter 9. This comment presents information, including a table, which it says demonstrates that the SWP contractor's UWMPs overstate the historical record for actual average and percentage deliveries from 1990 to 2002, thereby supporting that there was "paper water." The table appears to compare Table A amounts with deliveries and assert that the difference between the two numbers is "paper water." In reality, the difference often reflects contractor requests of less than Table A for a variety of reasons, including lower demand,

greater availability of local supplies, inability to accept deliveries (San Gorgonio because the East Branch Extension had not been completed), and allocations of less than 100 percent of Table A due to hydrologic conditions. For all years except 2001, some contractors did not request full Table A during the period covered by the table in the comment letter.

This comment also states that the DEIR must present the data that support the SWP contractor's UWMP plans that are relied upon in the DEIR, including if they are a product of CALSIM II or predecessor models, and that those models must be defended against a proper peer review. The comment further states that there is no reason to use CALSIM II result when there is a sufficient history to rely on for SWP delivery reliability.

The DEIR did not use data in the UWMPs to support a finding that the SWP "paper water" problem is absent. The use of the surveys in the DEIR was not to show actual numbers; rather it was intended to show whether urban water suppliers showed reliance on full Table A amounts. As stated in the DEIR on page 9-7, the survey of the UWMPs showed that the plans "surveyed present SWP supply information that indicates the inherent fluctuations in SWP deliveries." On page 9-8, the DEIR states that "[I]t is more likely that information such as that contained in the UWMP surveyed increased awareness of water supply challenges and the need to continually support additional supply development and conservation projects."

As stated in the DEIR on page 9-8, "[T]his survey of UWMP did not attempt to evaluate the accuracy of the information….Some of them may be subject to challenge with regard to whether the plan adequately discloses specific reliability questions." The Department did not review the plans to determine whether they relied on CALSIM or other methodologies.

See FEIR Subsection 9.2.4, especially 9.2.4.4 on effectiveness of current measures relating to water reliability, for further discussion on the UWMPs and other measures. See also FEIR Subsection 9.2.6, especially 9.2.6.4 for further discussion on how the Department assesses the reliability of SWP water and its recommendations to local government on how to assess liability for local purposes.

## Response to Comment 30-103

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-103 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in February 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of a chapter entitled Paper Water and Growth. The substance of the early chapter was included in the DEIR in Chapter 9. The comment states that the state's charge in assessing available water supplies involves multiple elements that have not begun to be addressed in the chapter. It suggests that local agencies have been "seduced" to believe that almost unlimited amounts of water are available for new growth and that we must look to the state, and federal and water agency levels, and not simply local decision-making for evidence of "paper water" or "cyber water." It also states that although the Monterey Plus EIR must necessarily focus on the SWP portion of water supplies, these supplies cannot be understood in a vacuum and it gives several examples of actions which can have an impact on water supplies.

See FEIR Subsections 9.2.1 which discuss issues outside the scope of the EIR included local growth and the Department's role in land use planning, and 9.2.4 and 9.2.6 which discuss water supply reliability. See also Response to Comment 17-2 and FEIR Subsection 5.2.3.2 on the relationship of the proposed project to other water policy actions.

## Response to Comment 30-104

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-104 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in February 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of a chapter entitled Paper Water and Growth. The substance of the early chapter was included in the DEIR in Chapter 9. The comment states that the paper water concept implies an environmental baseline which is not yet delineated in the proposed Draft EIR. It states that the current level of exports is not environmentally sustainable and that various actions of the Department to increase opportunities to export and to store exported water are activities which create "paper water." Much of this comment focuses on the overall state of the Bay Delta – some of which relates to the environmental impact of the Monterey Amendment and some of which relates to the impacts of the SWP as a whole or to other stressors. See FEIR Subsections 9.2.4 and 9.2.6.

Some of the Monterey Amendment water supply management practices provide opportunities for SWP contractors to store water in time when water is more available. Please see FEIR Chapter 15 Water Supply Management for more information on these practices.

See also FEIR Subsection 5.2.1.1 for a discussion that this EIR covers the Monterey Amendment and is not an EIR on the SWP. See also FEIR Section 7.2 on fisheries and the Delta and FEIR Subsection 5.2.3.2 on the relationship of the proposed project to other water policy actions.

## Response to Comment 30-105

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-105 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in February 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft a chapter entitled Paper Water and Growth. The substance of the early chapter was included in the DEIR in Chapter 9. The comment points out inconsistencies and what it identifies as questionable methodologies or conclusions in UWMPs and suggests that the Department

should standardize reporting and provide an independent estimate of each plan in order to determine the extent of paper water in the system.

Water Code Section 10644 requires UWMPs to be submitted to the Department and it requires the Department to submit an annual report to the Legislature on the status of the plans as well as to provide reports and data for legislative hearings designed to consider the effectiveness of the plans. Water Code Section 10631.5 also requires the Department to establish eligibility requirements regarding implementation of demand management measures for water management grants. The Urban Water Management Planning Act does not require the Department to standardize reporting.

The Department has, however, provided guidance material with regard to UWMPs, the SB 221 and SB 610 processes, the California Water Plan and the Reliability Report. See FEIR Subsection 9.2.6.4.

See also FEIR 8.2.2.2 on the Department's responsibility with regard to local land use decision-making and FEIR Subsection 5.2.3.2 on the relationship of the proposed project to other water policy actions.

## Response to Comment 30-115

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-115 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an earlier administrative draft of the EIR and suggests using UWMPs as a window into local plans to rely on SWP water. In part, in response to comments from the plaintiffs, the Department reviewed of some of these plans from SWP M&I contractors. The review shows that all the plans recognize the variability of water supplies and reflect the recognition that full SWP Table A amounts cannot be delivered in all years. See DEIR Subsections 9.3.4 and 9.2.6.

See also Response to Comment 30-115 in FEIR Subsection 9.2.4, in FEIR Section 6.3, and Chapters 8 and 13.

## Response to Comment 30-144

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-144 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented states that subsequent

drafts should analyze the elimination of Article 21(g)(1) and how it affected growth. The DEIR reflects changes made as a result of these and other comments. This portion of the comment is identical to Comment 30-50 and the reader is referred to Response to Comment 30-50 in FEIR Chapter 14. See also FEIR Subsection 9.2.5.

## Response to Comment 31-4

The comment does not agree with the DEIR's conclusions regarding invocation of Article 18(b) and delivery of Article 21 water in addition to reduced Table A deliveries and calls the analysis a "game of accounting slight-of-hand." The comment calls for an alternative that would reduce water exports and encourage conservation, reuse and the development of alternative water supplies as recommended by the Delta Vision Task Force.

The Department considers the analysis presented in the DEIR to be adequate for purposes of CEQA and consistent with the *PCL v. DWR* court's ruling. See FEIR Subsections 4.2.1 and 4.2.2.

See also FEIR Subsections 9.2.3 (the same as 13.2.2.3), 9.2.4, and 9.2.6 regarding water reliability. See FEIR Subsection 9.2.5 includes an analysis of the effects of operating the SWP with Article 18(b) invoked and limited or no Article 21 water delivered to SWP contractors. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3 and Response to Comment 17-1.

See FEIR Subsection 5.2.3.2 on the relationship of the proposed project with other water policy issues, including the Delta Vision Task Force. See also Response to Comment 31-4 in FEIR Chapters 11 and 13.

## Response to Comment 31-5

The comment says that the EIR will not comply with "CEQA, or common sense, until DWR performs a proper analysis of the long term shortage alternative. See FEIR Subsections 9.2.1 and 9.2.5 and Response to Comment 17-1. See also FEIR Subsection 11.2.4 on alternatives that consider reduced demand or Delta exports and Response to Comment 31-5 in FEIR Chapter 7.2.

## Response to Comment 35-5

This comment states that the DEIR states that eliminating Article 18(b) had no effect on growth inducement and the commenter believes that reinstatement of Article 18(b) would reduce ambiguity in water supply reliability so that local planning agencies would not be able to rely on exaggerated figures or misunderstandings of existing water supplies. The comment further states that the elimination of Article 18(b) has allowed approvals to occur that would not otherwise have occurred without strong water conservation and efficiency requirements. For a discussion of issues relating to yield, reliability and paper water, see FEIR Subsection 9.2.3 (the same as 13.2.2.3), Subsection 9.2.5 on Article 18(b) and Article 21(g)(1), and Subsection 9.2.6 on the Reliability Report. See also Response to Comment 17-1. See also Response to Comment 35-5 in FEIR Chapters 8 and 13.

## Response to Comment 36-9

The comment claims that with the elimination of Article 18(b), the Department gave up its ability to declare permanent shortages. It also states that the easiest way for all stakeholders to understand that there will be less water coming from the Delta is to invoke Article 18(b) and reduce the contractors' entitlements. See FEIR Subsections 9.2.3 (same as 13.2.2.3), 9.2.5 and 9.2.6, and the Response to Comment 17-1. See also Response to Comment 36-9 in FEIR Chapter 13.

## Response to Comment 36-10

The comment states that numerous housing projects have been approved in the Santa Clarita, Antelope Valley, and San Bernardino areas, several of which rely on the KCWA-Castaic Lake WA transfer and are currently the subject of litigation, based on false expectations that water will be available at the "entitled" amount. The comment argues Article 18(b) and Article 21(g)(1) would result in reduced demand for SWP water, particularly Article 21 water. See FEIR Subsections 9.2.3 (same as 13.2.2.3), 9.2.4, 9.2.5, and 9.2.6, and the Response to Comment 17-1. See also Response to Comment 36-10 in FEIR Chapters 8 and 13.

## Response to Comment 36-11

The comment states that the Reliability Report which the DEIR discusses in Chapter 9 Reliability of Water Supplies and Growth does not adequately address water supply reliability issues. It states that the Reliability Report has not been codified into law, is released every three years, is not timely produced and does not include an analysis of climate change which will affect State water supplies. See FEIR Subsections 9.2.6.3 and 9.2.6.4.

## Response to Comment 36-12

The comment asks for the reinstatement of Article 18(b), and suggests that the opportunity for public review and the response to comments on the Reliability Report should be required by legislation or some other means. See FEIR Subsections 9.2.5 and 9.2.6.4. See also FEIR 13.2.2 for a discussion of invocation of Article 18(b).

## Response to Comment 56-1

The comment provides an example of what the commenter considers a good example of how local planners are seduced by "paper water." The comment states that the example shows that what was analyzed at the local level was not a correct interpretation of SWP reliability according to the information documented in the Department's Reliability Report. See FEIR Subsection 9.2.6, especially 9.2.6.4.

## Response to Comment 66-3

The comment states that the sum total of the amendments means a loss of accountability to the State and that changing Article 21 water to interruptible water and eliminating [Article 21(g)(1)] is allowing water marketing for building homes and businesses. See FEIR Subsections 9.2.2 and 9.2.5, especially 9.2.5.2, and Response to Comment 17-1. See also Response to Comment 66-3 in FEIR Chapter 14.

# 10. OTHER CEQA CONSIDERATIONS

# 10. OTHER CEQA CONSIDERATIONS

## 10.1 Introduction

The following responses address comments on Chapter 10 of the DEIR Other CEQA Considerations in the areas of cumulative impacts (Section 10.1) and Environmental Justice (Section 10.4). Comments covered different issues, including: cumulative impacts of changes in Delta flows, the completeness of the cumulative project list; and the impact of the proposed project on farmworkers, small rural communities, low-income taxpayers, and minorities. The comments received on the DEIR's analysis for these issues were specific and require individual responses.

## 10.2 Cumulative Environmental Impacts

This Section addresses the following comments: 6-17, 19-3, 19-6, 21-46, 30-60, 30-92, 30-150, 64-2, and 64-33.

### Response to Comment 6-17

The comment states that the DEIR failed to explain why no significance determination was made with respect to cumulative flow changes in the Sacramento and Feather rivers. The proposed project was evaluated for its potential to change stream flow in the Feather, Sacramento, American and San Joaquin Rivers that could potentially change outflow from the Delta to San Francisco Bay (see Impact 7.1-1 on DEIR pages 7.1-34 through 7.1-41). It was determined that the proposed project would have very little effect on average or monthly flows in the Feather or Sacramento Rivers when compared to pre-project conditions. Therefore there would be no change in the flow of the American or San Joaquin Rivers, and very little change in Delta inflow. It was also determined that the change in Delta outflow was small, but greater than the change in Delta inflow as a result of increased Delta exports.

Impact 10.1-1 evaluates the contribution of the results of Impact 7.1-1 to the cumulative impact of change in Delta outflow. As described under Impact 10.1-1 on DEIR pages 10.1-21 and 10.1-22, the project's contribution to Delta inflows contributed by the Sacramento and Feather Rivers would be less than 0.15 percent of total inflows, which is not measurable when compared to total cumulative flows. As a result, the project's contribution would not be considerable and this would be a less than significant cumulative impact. Similarly, the analysis determined that the project's contribution to reduction in Delta outflow, less than 0.35 percent, was also determined not to be considerable. Therefore, the comment is correct that the text of the DEIR should be revised to reflect this. These revisions do not change the conclusions of the DEIR.

The first full paragraph on page 10.1-21 is revised to read as follows:

> … ~~No significance determination was made with respect to cumulative flow changes in the Sacramento and Feather rivers or for the flow changes produced by the proposed project.~~ Because the project's contribution to cumulative flows would not be measurable when compared to total cumulative flows, ~~However,~~ the proposed project's contribution to flow changes would not be cumulatively considerable.

The fourth paragraph on page 10.1-21 is revised to read as follows:

> … ~~No significance determination was made with respect to cumulative flow changes in the Delta or for the flow changes in the Delta produced by the proposed project.~~ Because the project's contribution to cumulative flows would not be measurable when compared to total cumulative flow changes in the Delta, ~~However,~~ the proposed project's contribution to flow in the Delta ~~changes~~ would not be cumulatively considerable.

The change in exports (outflow) in the Delta, while having little effect on actual flows in the Delta channels and a small impact on Delta outflow, could impact fish that are near the export pumps and could be at risk of being drawn toward the pumps. Therefore, the DEIR determined that the proposed project could have a potentially significant cumulative impact on fish species potentially at risk due to increased export pumping at those times when Banks would pump at its maximum permitted rate for a longer period under the proposed project. These impacts were evaluated in the DEIR in Section 7.3 under Impact 7.3-5 on pages 7.3-42 through 7.3-73. The DEIR determined that implementation of Mitigation Measure 7.3-5 would substantially limit the project's contribution and the impact would be less than significant. See also Subsection 7.2.2.1.3 of this FEIR.

## Response to Comment 19-3

The comment states that the DEIR cumulative impact section did not include a description of groundwater, groundwater management plans, or groundwater plans for conjunctive use in the Sacramento Valley. See Response to Comment 19-6. See also Response to Comment 19-3 in FEIR Section 7.1 and Chapter 10.

## Response to Comment 19-6

The comment states that the DEIR cumulative impact analysis does not analyze the cumulative impacts of the Sacramento Valley Water Management Program (SVWMP) combined with the proposed project. A cumulative impact refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. See CEQA Guidelines 15355. For the purposes of this EIR, the proposed project was evaluated with closely related past, present and reasonable foreseeable probable future projects that affect resources impacted by the proposed project in the Southern San Joaquin Valley, SWP reservoirs, Sacramento and Feather rivers, Sacramento-San Joaquin Delta and Plumas County. The DEIR did not find any significant impacts of the proposed project on ground water or surface water in the Sacramento or San Joaquin Valley outside of the Delta. Water supply management practices, such as storage-outside-the-service area, may actually increase ground water levels in the San Joaquin Valley. See Response to Comment 16-26 in FEIR Section 7.1. The Department recognizes, however, that current and future operations and activities of the SWP and its contractors may have an impact on or be affected by ongoing conditions and activities in these areas.

Each of the projects mentioned in the comment, the Sacramento Valley Integrated Regional Water Management Plan (SVIRWMP), Butte County Integrated Management Plan (BCIMP), SVWMP and the Sacramento Valley Regional Water Management Agreement (SVRWMA), are independent actions by other agencies that would have little or no relationship to the proposed project. These projects and activities may affect the environment and the effects are discussed in relevant environmental and planning documents. See Response to comment 19-3. See also FEIR Subsection 6.2.2.1 on Ongoing Projects.

The SVIRMP was completed in December 2006, with the assistance of the Department. The plan "…is a framework to guide the management of water resources in the Sacramento Valley, which is experiencing increasing and changing water needs resulting from urbanization, evolving cropping patterns, and additional water demands for instream flows and wetlands." The plan has been adopted by numerous entities, both governmental and non-governmental. The plan is not yet in the form of a project that can be evaluated for environmental impacts, and thus cannot be considered in the context of analyzing whether it would create impacts that would be considered cumulative in combination with the proposed project.

The BCIMP reference provided in the comment is no longer active on the Internet. The Department assumes in this response that the applicable plan is the BCIMP, which is a proposed element of the 2030 update of the Butte County General Plan. The plan contains policies for the management of Butte County's water resources. The plan is not in the form of a project that can be evaluated for environmental impacts, and thus cannot be considered in the context of analyzing whether it would create impacts that would be considered cumulative in combination with the proposed project.

The SVWMP is a short-term settlement of an issue previously before the SWRCB regarding responsibility of water users for meeting Delta water quality requirements under D-1641. Additional information is presented on page 10.1-13 of the DEIR. The nature of the activities that would occur under the SVWMP are not yet fully defined. Reclamation is currently preparing an EIS/EIR on the proposed actions embodied in the short-term SVWMP with a goal for completing the document in early 2011. That document will address the impacts of that project as well as any cumulative impacts. The nature of the projects within that program is not well-defined at present. To the degree that the SVWMP changes flow in the Feather and/or Sacramento Rivers, those changes would be combined (cumulative, i.e., additive or offsetting, depending on the results of the 2011 EIS/EIR). It is unknown if any of the impacts of this program would be potentially significant.

The SVRWMA was prepared in 2006 by Reclamation's Sacramento River settlement contractors in cooperation with Reclamation. The plan provides details on water resources in the Sacramento Valley region in support of renewal of the settlement contracts. It includes, as part of the input data to the plan, information on projects being proposed or implemented by some of the settlement contractors. The plan proposed a water monitoring program and identified potential water management improvements that could be pursued in the future. The plan is not in the form of a project that can be evaluated for environmental impacts, and thus cannot be considered in the context of analyzing whether it would create impacts that would be considered cumulative in combination with the proposed project.

## Response to Comment 21-46

The comment states that the DEIR should disclose the SVWMP (Phase 8) connection between the agreement's plans to replace surface water supplies with groundwater pumping so that those surface water supplies can be used by the SWP. As discussed above in Response to Comment 19-6, the DEIR did not find any significant impacts of the proposed project on ground water or surface water in the Sacramento or San Joaquin Valley outside of the Delta. Phase 8 was included as part of the cumulative projects considered in the cumulative impact analysis of the proposed project included in DEIR Section 10.1. The comment is correct in that the SVWMP contemplated additional surface releases from the Sacramento Valley area to relieve the SWP and CVP from sole responsibility for providing reservoir releases to meet D-1641 Delta water quality requirements. The net effect of the releases that may occur from SVWMP projects would be to allow added exports during the summer water transfer season by the SWP and

CVP. The added water would be provided by local agencies in the Sacramento Valley drawing groundwater in the dry years to allow surface water to flow to the Delta in those years, augmenting Delta inflow. As noted above in Response to Comment 19-6, Reclamation is currently preparing an EIS/EIR on the proposed actions embodied in the short-term SVWMP with a goal for completing the document in early 2011. That document will address the impacts of that project as well as any cumulative impacts.

The comment also notes that the DEIR does not make mention of the problems that have arisen as a result of underfunding the EWA. EWA was included as part of the cumulative projects considered in the cumulative impact analysis of the proposed project included in DEIR Section 10.1. In response, the FEIR addresses the role of the EWA program in FEIR Subsection 7.2.2.1.5. The EIR no longer relies on the EWA Program assets for mitigation of project impacts on Delta fisheries. That mitigation will be provided by the new Biological Opinions and related regulatory constraints on SWP Delta export pumping. See FEIR Subsection 7.2.2.1.3. Finally, the comment notes that the DEIR identifies cumulative impacts to special status fish species but the comment disagrees that imposing project-specific mitigation measures, including implementation of the EWA, would limit the project's contribution to less than significant.

In response, the FEIR addresses the role of the EWA program in FEIR Subsection 7.2.2.1.5. The EIR no longer relies on the EWA Program assets for mitigation of project impacts on Delta fisheries. That mitigation will be provided by the new Biological Opinions and related regulatory constraints on SWP Delta export pumping. See FEIR Subsection 7.2.2.1.3.

## Response to Comment 30-60

The comment states that the DEIR does not analyze how the proposed project will affect the environment via the CVP use of Delta export capacity. A cumulative impact refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. See CEQA Guidelines 15355. For the purposes of this EIR, the proposed project was evaluated with closely related past, present and reasonable foreseeable probable future projects that affect resources impacted by the proposed project in the Southern San Joaquin Valley, SWP reservoirs, Sacramento and Feather rivers, Sacramento-San Joaquin Delta and Plumas County. Projects that affect the CVP which could have related impacts were included in the cumulative analysis (see DEIR Table 10-1 on pages10.1-3 through 10.1-5).

The DEIR on page 7.1-56 presents data on the CALSIM II results relative to CVP deliveries as affected by the retirement of 45,000 AF of Table A, transfers of Table A, and revised allocation methods. The results show a decrease in CVP deliveries to contractors south of the Delta of about 1,900 AF under 2003 conditions and 3,500 AF in 2020, or a 0.2 percent decrease or less. In certain year types CALSIM II computed slight increases, and in other years slight decreases, with a net decrease in the averages for all years. In the wetter years, the retirement of 45,000 acre-feet of agricultural demand could result in more water available to the CVP, partly offsetting any decrease in SWP exports. However, a change of 0.2 percent or less derived from the CALSIM II results is probably not meaningful or measurable, and is less than significant, especially in the wet years.

In the historical analysis (DEIR pages 7.1-57 and 7.1-58), the Department concluded that Reclamation would not have used JPOD for CVP Delta exports at Banks. In the future analysis of the impact of the water supply management practices, the Department concluded that there could be times when the CVP would use available capacity at Banks if the Department were not

using that same capacity for SWP Delta exports. Thus CVP exports would be reduced in those instances.

These analyses in the DEIR demonstrate that CVP Delta exports did not change measurably in the historical condition, and could be slightly less in the future when the SWP elects to use Banks for SWP purposes related to the proposed project when JPOD capacity might otherwise be available to the CVP. Thus there would be no increase in CVP Delta exports and therefore no adverse impacts related to the proposed project as it affects CVP Delta exports.

Under the constraints imposed by new Biological Opinions, there will be fewer opportunities for Reclamation to use JPOD for CVP purposes at Banks. There are likely to be fewer impacts on CVP use of JPOD in the future than estimated in the DEIR. See also Response to Comment 1-1 in FEIR Section 7.1 for more discussion on the proposed project and the CVP.

Cumulative impacts associated with increased pumping in the Delta were evaluated. As described under Impact 10.1-1 on DEIR page 10.1-21, cumulative water quality impacts associated with reduced Delta flows were determined to be potentially significant; however, the project's contribution would be less than considerable so the cumulative water quality impact would be less than significant.

Cumulative impacts on special-status fish species in the Delta due to changes in Delta exports was determined to be cumulatively significant (see Impact 10.1-2 on DEIR pages 10.1-22 through 10.1-25). Implementation of Mitigation Measure 7.3-5 would substantially limit the project's contribution to this impact and it would be reduced to a less than significant level. See also FEIR Section 7.2 Fisheries, Subsection 7.2.2.1.3, for a summary of text changes to Mitigation Measure 7.3-5. Revisions to Mitigation Measure 7.3-5 are for clarification and do not change the effectiveness of the measure.

## Response to Comment 30-92

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-92 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document notes that Reclamation, CALFED, the Department and other agencies have indicated their intent to increase pumping at the SWP's Delta facilities and that those projects should be addressed in the cumulative analysis. However, the comment further notes that these projects should not be assumed and alternatives to increased pumping should be considered.

The cumulative analysis contained in DEIR Section 10.1 Cumulative Environmental Impacts does include projects which increase pumping from the Delta. See DEIR Table 10-1 on pages 10.1-3 through 10.1-5 and the descriptions of each project contained in pages 10.1-2 through 10.1-20.

The proposed project could result in impacts to Delta fisheries due to increased pumping in the Delta as a result of the water supply management practices. The DEIR included an analysis of

alternatives which reduced or eliminated the impact to Delta fisheries associated with increased Delta pumping. As discussed in DEIR Chapter 11 Alternatives NPA1, CNPA3/CNPA4 would result in no impact to Delta fisheries. NPA2 would result in the same impact as the project under 1996-2003 conditions but the impact would be less in the future when compared to the proposed project. Depending on how it is analyzed, Alternative 5 would either result in no impact to Delta fisheries or have impacts similar to NPA2. Reduced pumping is discussed in FEIR Subsection 11.2.4.2.

## Response to Comment 30-150

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-150 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that the DEIR must include a full analysis of cumulative impacts of the proposed project and all other projects planned to be implemented by the Department, all projects that the Department has approved or plans to approve, all projects that the Department has or will implement in coordination with Reclamation and all foreseeable water diversion projects that will reduce the amount, timing, temperature, or quality of flows in the Feather and Sacramento Rivers and the Delta.

A cumulative impact refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. See CEQA Guidelines 15355. For the purposes of this EIR, the proposed project was evaluated with closely related past, present and reasonable foreseeable probable future projects that impact resources impacted by the proposed project in the Southern San Joaquin Valley, SWP reservoirs, Sacramento and Feather rivers, Sacramento-San Joaquin Delta and Plumas County. These included projects which could change the timing, temperature or quality of flow in the Sacramento and Feather rivers and the Delta (see DEIR Table 10-1 on pages 10.1-3 through 10.1-5 and the descriptions contained in pages 10.1-2 through 10.1-20). CEQA does not require that a cumulative impact analysis evaluate every project being undertaken by the Department either alone or in combination with other agencies such as Reclamation unless there are related impacts. The Department believes that it has included all relevant past, present and probable future projects known at the time the DEIR analysis was completed. The Department is not aware of any new projects known since the time the DEIR analysis was completed which would change the conclusions of the DEIR.

The comment also states that the Department must analyze cumulative growth-inducing impacts of allowing water to be stored outside of the SWP storage area.

As discussed in DEIR Chapter 8 Growth-Inducing Impacts on page 8-1, the Department, as the lead agency, is required to discuss the ways the proposed project could affect economic or population growth in the vicinity of the project and how the characteristics of the project could result in other activities which could have adverse impacts to the environment (CEQA Guidelines Section 15126.2(d)). CEQA does not require that a lead agency make a determination as to whether increases in population in and of itself is beneficial or detrimental. A lead agency does need to discuss whether that population growth could encourage and

facilitate other activities or remove an obstacle to growth (such as construction of new facilities) which could significantly affect the environment. A growth-inducing impact discussion is neither project-specific nor cumulative.

As further discussed in FEIR Subsection 8.2.2 in Chapter 8 Growth-Inducing Impacts, and described on page 8-14 of the DEIR, the growth-inducing analysis concludes that the proposed project could result in additional water supply through average annual Table A deliveries and Article 21 deliveries to several M&I contractors (see DEIR Table 8-3 on page 8-10, as revised in FEIR Section 8.4). The DEIR further concludes that increases in population could result in new development that causes adverse impacts to the environment. The types of impacts and potential mitigation measures are discussed in DEIR Section 8.2 on page 8-11 and page 8-12, and they are common to urban development projects. While many of these impacts could be mitigated, it is reasonable to assume that some of the impacts would be potentially significant and unavoidable. This conclusion is similar to conclusions found in some of the environmental documents prepared by sellers and buyers of Table A water which are discussed on pages 8-4 and 8-5 of the DEIR. Whether a specific use of the water would result in an adverse impact and whether that impact can be mitigated is determined at the local level as discussed on page 8-14.

The comment also requests that the cumulative impact analysis include an analysis of all greenhouse gas emissions generated by project implementation. Greenhouse gas emissions were evaluated in Chapter 12, Climate Change of the DEIR. See also FEIR Chapter 12 on climate change.

## Response to Comment 64-2

The comment asserts that the DEIR fails to identify the relationship between Phase 8 (SMWMA) and the SVIWMP and Delta exports. The DEIR addressed the SVWMP on page 10.1-13 as one of the projects considered in the cumulative impact analysis.

The SVWMP contemplated additional surface releases from the Sacramento Valley area to relieve the SWP and CVP from sole responsibility for providing reservoir releases to meet D-1641 Delta water quality requirements. The net effect of the releases that may occur from SVWMP projects would be to allow added exports during the summer water transfer season by the SWP and CVP. The added water would be provided by local agencies in the Sacramento Valley drawing groundwater in the dry years to allow surface water to flow to the Delta in those years, augmenting Delta inflow.

The SVIWMP is a framework to guide the management of water resources in the Sacramento Valley. While the plan has been adopted by numerous entities, both governmental and non-governmental it is not yet in the form of a project that can be evaluated for environmental impacts, and thus cannot be considered in the context of analyzing whether it would create impacts that would be considered cumulative in concert with the proposed project. It is also premature to evaluate the relationship of this plan to the SVWMP, and to determine how those separate actions might cumulatively interact with the proposed project relative to Delta exports.

See also Responses to Comments 19-6 and 21-46.

## Response to Comment 64-33

The comment suggests that the decision-maker does not have adequate information about the cumulative effects of the project because there are a number of cumulative impacts that have

been left out. The comment specifically notes the Napa program, SDIP, inadequate biological opinions, water quality violations by the Department in the Delta, the relationship between the project and the Delta Accord and CALFED.

As discussed in Responses to Comments 6-17 and 30-150, a cumulative impact refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. See CEQA Guidelines 15355. For the purposes of this EIR, the proposed project was evaluated with closely related past, present and reasonable foreseeable probable future projects that impact resources impacted by the proposed project in the Southern San Joaquin Valley, SWP reservoirs, Sacramento and Feather rivers, Sacramento-San Joaquin Delta and Plumas County. These included projects which could change the timing, temperature, or quality of flow in the Sacramento and Feather rivers and the Delta (refer to DEIR Table 10-1 on pages 10.1-3 through 10.1-5 and the descriptions contained in pages 10.1-2 through 10.1-20), including projects associated with CALFED. Cumulative impacts are evaluated and presented in DEIR Section 10.1, Cumulative Environmental Impacts on pages 10.1-20 through 10.1-52. This information will be considered by the Director as part of the decision-making process when considering the adequacy of the EIR (certification) and project approval.

This FEIR does address the court action on certain biological opinions and addresses the new opinions that are in place or soon to be in place. See FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3. SDIP, water quality regulations, and CALFED are all addressed in the DEIR (page 7.1-34). The CALFED Bay Delta Accord is an agreement signed in December 1994 between state and federal agencies with management responsibilities over the Delta. The Accord brought together environmental advocates, urban water users and farm interests to address deterioration of the Bay-Delta system. The Bay-Delta Accord included a firm resolve to find solutions by initiating a process known as CALFED. The CALFED framework agreement signed by the agencies has at its core three goals: develop water quality standards to protect the estuary, coordinate operations of the state and federal water projects, and develop a long-term solution for the Delta. The CALFED program was the subject of an EIR that was recently upheld by the California Supreme Court, *In re Bay-Delta*. The CALFED process has developed projects, e.g., the EWA, that are the subject of other environmental documents and are addressed in the DEIR. See FEIR Subsection 7.2.2.1.5. The Department does not agree that either the Delta Accord or the Monterey Amendment have resulted in the “damage in the Delta.” See FEIR Subsection 7.2.2.1.3.

The “Napa program” cited in the comment presumably relates to a 2003 proposal to more closely coordinate the operations of the SWP and CVP. That proposal has never advanced beyond the initial discussion stage and a draft “proposition”: paper, and is not an active project, and thus is not considered in the EIR.

## 10.3 Environmental Justice

This Section addresses the following comments: 13-2, 23-1, and 42-12.

### Response to Comment 13-2

The comment states that based on income levels, Plumas County as a whole is considered an economically disadvantaged community and that the State Water Project’s reinvestment in the Upper Feather River watershed also provides multiple opportunities to address environmental justice concerns. The comment does not disagree with the conclusion of the DEIR that the proposed project would not have environmental justice impacts, but suggests that the objectives

of the Plumas Watershed Forum established by the Settlement Agreement – part of the proposed project – are consistent with local strategies to benefit minority interests.

See also Response to Comment 23-1.

## Response to Comment 23-1

The comment asserts that the DEIR failed to acknowledge the impact of the proposed project on farmworkers, small rural communities, low-income taxpayers, and minorities.

As stated in Section 10.4, California Government Code Section 65040.12 defines environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." In addition, the CEQA Guidelines provide guidance in determining potential environmental justice impacts, and although the CEQA Guidelines do not recognize an economic or social change as a significant impact, social change may be considered as it related to determining the significance of a physical change on the environment. The analysis of environmental justice impacts examines the extent to which each alternative would affect a local economy and the different socioeconomic groups participating in the economy. The Department provided information with regards to a variety of factors that affect the delivery of water supplies to SWP contractors throughout the DEIR.

As stated in DEIR Section 10.4, the proposed project would provide more flexibility with regard to SWP water deliveries available to state water contractors for delivery to communities in their service area and also water supply management measures that would result in more reliable water supplies during dry years. Existing water supplies would not be reduced by the Department for any specific community based on race, origin, or economic status as part of the proposed project, and would likely be more reliable in the future during dry years. Therefore, impacts that could constrain water supply availability, preclude use, or cause other environmental justice effects would not be expected to occur as a result of the proposed project. Section 7.6 of the DEIR concluded that the project would have little or no impact on the acreage of irrigated land.

## Response to Comment 42-12

The comment raises questions with regard to operation of the KWB and the possible effects of out of basin transfers to subsidies and farmworkers. For effects of the project on farmworkers, see Response to Comment 23-1. See also Response to Comment 42-12 in FEIR Chapter 16 for issues raised regarding the KWB.

# 11. ALTERNATIVES

# 11. ALTERNATIVES

## 11.1 INTRODUCTION

The following responses address comments on the alternatives analysis contained in Chapter 11 of the DEIR. Comments covered several primary issues including: compliance with CEQA requirements for alternatives analysis; compliance with the court's directions for evaluating a no project alternative that included the invocation of Article 18(b); and range of alternatives evaluated in the DEIR. The master response is organized by the following subtopics:

- 11.2.1 Compliance with CEQA Alternatives Analysis Requirements
- 11.2.2 Compliance with Court's Instructions
- 11.2.3 Range Of Alternatives Considered in the DEIR
- 11.2.4 Increased Water Conservation and Recycling and Less Delta Pumping Alternative

Some of the comments received on the DEIR's alternatives analysis are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Section 11.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include references to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This Chapter addresses the following comments: 6-1, 6-9, 6-10, 6-19, 11-4, 11-6, 11-7, 15-3, 16-15, 16-45, 17-8, 19-2, 21-47, 21-48, 21-49, 21-50, 21-51, 21-56, 22-20, 26-6, 30-7, 30-16, 30-21, 30-22, 30-24, 30-44, 30-46, 30-47, 30-48, 30-64, 30-66, 30-72, 30-138, 30-147, 30-151, 30-152, 31-4, 31-6, 35-8, 36-5, 36-14, 36-18, 36-19, 64-15, 64-17, 64-34, 65-3, 65-7, 65-15, and 67-5.

## 11.2 MASTER RESPONSE

### Summary

Consistent with the requirements of CEQA, the Department used the following factors as screening criteria to determine whether to consider a candidate alternative in detail: it must meet most of the objectives of the proposed project; avoid or lessen the proposed project's significant adverse environmental impacts and; be feasible and implementable in a reasonable period of time.

Although the proposed project objectives were established taking into consideration the whole of the proposed action, the DEIR criteria did not require that an alternative must meet all the project objectives. The history and description of both the Monterey Amendment and the Settlement Agreement describe the negotiation process leading up to both agreements. Because they were negotiated agreements, all parties to the agreements must have perceived a benefit or there would have been no reason to sign the agreements. The reasons for signing may have been different for each party, but each one had to believe that it would benefit from

the changes as a whole. Some parties may have given up some rights or benefits in exchange for other benefits. These benefits are incorporated into the objectives. If any component is removed or any objective is not met, one of the parties is likely to have not gained the benefit it thought it was gaining from signing the agreement.

The California Supreme Court recently reaffirmed in *In re Bay-Delta* (pages 1162 – 1169, see especially page 1165) that an EIR's consideration of alternatives is based on the rule of reason considering the facts and circumstances involved. The focus of the Supreme Court was not on whether a rejected alternative met some or most of the objectives but rather on whether the lead agency has reasonably determined that the rejected alternative cannot achieve the project's underlying fundamental purpose. The Supreme Court recognized that, in certain instances, when the proposed project reflects a negotiated solution to a problem that provides benefits for different parties, the CEQA analysis can reject alternatives that do not achieve all of the objectives concurrently.

The DEIR found that the proposed project had no significant past (1996 to 2003) impacts that were not mitigated to a level of less than significant. With respect to future impacts, the DEIR found that the water supply management practices, provided for in the Monterey Amendment, and the watershed improvement program for Plumas County, provided for in the Settlement Agreement, may have potentially significant impacts. The watershed improvement program is the only element of the Settlement Agreement determined to have potentially significant impacts. These impacts are considered relatively minor and no comments were received regarding these impacts. The water supply management practices may lead to potentially significant and unavoidable impacts on terrestrial resources as a result of the development of groundwater banks in Kern County other than in the KWB Lands and flexible storage provisions. They may also lead to potentially significant mitigable impacts on Delta fisheries resources. As discussed in this FEIR in Subsection 14.2.5.2, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta and have no impact on Delta fisheries resources. See DEIR, pages ES-4 to ES-5. See also FEIR Subsection 4.2.1.1. Therefore, the DEIR and FEIR focus on the impacts that are the result of the facilitation of water supply management practices. Each candidate alternative was evaluated for its ability to avoid or lessen these identified significant impacts.

The SWP has been operated for over 12 years since 1996 pursuant to long-term water supply contracts that include the Monterey Amendment. Four versions of the no project alternative are examined in the DEIR because there is disagreement and uncertainty over how to characterize continued operation of the SWP in accordance with the pre-Monterey long-term water supply contracts. These versions include two that involve invocation of Article 18(b) as required by the court in *PCL v. DWR*.

In addition to the four no project alternatives, the Department compiled a broad range of candidate alternatives to the proposed project that were identified by the Department, suggested by the SWP contractors or suggested by the plaintiffs. Some of these suggested alternatives are included in the no project alternatives. Seven alternatives in addition to the four no project alternatives were examined. Some of these suggested alternatives were rejected because they failed to meet one or more of the screening criteria. One was selected for detailed analysis even though there are questions about its feasibility. This alternative, Alternative 5, does not include the water supply management practices described in Articles 54 and 56 of the Monterey Amendment that are the cause of most of the potentially significant adverse impacts of the proposed project. The Department believes that the alternatives

analyzed provide a reasonable range of information on choices that might have been made or could be made, and that the analyses are useful to the public and decision-makers.

The EIR found that some of the water supply management practices could have a small but potentially significant impact on fisheries resources in the Delta. The Department has determined that its commitment to continue to operate the SWP facilities in compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will minimize, avoid and/or reduce potential effects on the Delta aquatic environment from the proposed project now and in the future to a less than significant level. The Department has determined that relying on the requirements of the existing regulatory process is not improper deferral of mitigation. See FEIR Subsection 7.2.2.1.3.

Some comments stated that the DEIR should have considered a broader range of alternatives including increased conservation, recycling and other local water system enhancements; Department-mandated best management practices to reduce urban demand for water; reduced diversions or exports from the Delta; and allocation of water for Delta and fisheries benefits. The DEIR considered these issues, but concluded that the Monterey Amendment was not an appropriate tool for mandating these types of changes. These suggested changes were rejected as alternatives because they did not meet the project objectives. They are not alternatives to the proposed project, but rather different projects with different objectives designed to address issues related to operation of the SWP as a whole or to address issues only tangentially (or not at all) related to the SWP or the Monterey Amendment. See FEIR Subsections 5.2.1.2 and 11.2.4.

In the DEIR the Department did not reject alternatives arbitrarily because they required legislation or because they would reduce dependence on exports from the Delta. The Department considered a variety of factors including the nature of the alternative, its ability to achieve most of the project objectives and its ability to meet the fundamental purpose of the proposed project, its consistency with traditional legislative and administrative allocations of responsibility, the likelihood of achieving a state-wide or local consensus, whether the alternative was more appropriately considered in other forums, and other factors.

The DEIR considered issues relating reducing demand or reducing pumping, but concluded that the Monterey Amendment was not an appropriate tool for mandating these types of changes. However, the DEIR does not avoid the demands facing the State and the Delta either with regard to growth and water availability, with regard to the stresses facing the Delta or with regard to challenges posed by climate change. It also recognized that there were administrative and legislative efforts that could address these concerns as part of other comprehensive statewide processes.

### 11.2.1 Compliance with CEQA Alternatives Analysis Requirements

Comments addressed in this subsection include: 6-1, 6-9, 6-10, 6-19, 11-7, 16-15, 21-47, 21-48, 21-49, 21-51, 26-6, 30-7, 30-16, 30-21, 30-22, 30-44, 30-46, 30-47, 30-48, 30-64, 30-66, 30-72, 30-138, 30-147, 35-8, 36-5, 64-15, 64-34, 65-3, 65-7, and 67-5.

Several comments contend that the DEIR does not comply with the portion of CEQA that requires consideration and discussion of alternatives to the proposed project and that the DEIR must analyze a reasonable range of alternatives.

As summarized on page 11-1 of the DEIR, the CEQA Guidelines (15126.6 (a)) state that:

> An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision decision-making and public participation. An EIR is not required to consider alternatives which are infeasible. The Lead Agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

The Guidelines (15126.6(c)) go on to explain what constitutes a reasonable range of alternatives:

> The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant environmental effects.

To fulfill its responsibilities to decision-makers and the public, and meet the requirements of CEQA, the Department examined each candidate alternative to determine if it met the requirements for detailed analysis as a CEQA alternative. Under CEQA, the EIR must discuss potentially feasible alternatives to a proposed project that accomplish most of the basic project objectives and avoid or substantially lessen one or more significant adverse environmental effects. Consistent with these requirements, as stated on page 11-2 of the DEIR, the Department used the following factors as screening criteria to determine whether to consider a candidate alternative in detail. To do so, a candidate alternative would have to:

- meet most of the objectives of the proposed project;
- avoid or lessen the proposed project's significant adverse environmental impacts and;
- be feasible and implementable in a reasonable period of time.

If an alternative met the screening criteria, it was subject to further detailed study even though it might have been rejected under the CEQA criteria for rejection. In this way the public and the decision-makers are presented with more detailed information which they can use in considering options available to the Department and the contractors.

With respect to the first criteria that an alternative would have to meet most of the objectives of the proposed project, some of the comments suggest that the DEIR criteria require that an alternative must meet all of the stated project objectives in order for it to be evaluated in detail in the DEIR. Other comments seemed to indicate that as long as an alternative met some of the objectives it should be analyzed in the EIR. The proposed project objectives were established taking into consideration the whole of the proposed action. The history and description of both the Monterey Amendment and the Settlement Agreement describe the negotiation process leading up to both agreements. Because they were negotiated agreements, all parties to the agreements must have perceived a benefit or there would have been no reason to sign the agreements. The reasons for signing may have been different for each party, but each one had to believe that it would benefit from the changes as a whole. Some parties may have given up some rights or benefits in exchange for other benefits. These benefits are incorporated into the objectives. If any component is removed or any objective is not met, one of the parties is likely to have not gained the benefit it thought it was gaining from signing the agreement. See DEIR Chapters 3 and 4 and FEIR Subsection 5.2.3.1.

Nevertheless, alternatives to the proposed project evaluated in the DEIR were selected in part based on their ability to achieve most of the proposed project's basic objectives, not all of them. See discussion below in FEIR Subsection 11.2.3.1 for further discussion regarding the *In re Bay-Delta* decision and achieving the project's underlying fundamental purpose. See also FEIR Subsection 11.2.3.2 on alternatives considered and rejected and 11.2.4 on factors considered in rejecting an alternative of reduced water supply.

With respect to the second criteria, potentially significant adverse environmental impacts of the proposed project are described in the technical sections of Chapter 7 of the DEIR and are summarized in the Executive Summary on pages ES-5 and ES-6. The DEIR found that the proposed project had no significant past (1996 to 2003) impacts that were not mitigated to a level of less than significant. With respect to future impacts, the DEIR found that the water supply management practices, provided for in the Monterey Amendment, and the watershed improvement program for Plumas County, provided for in the Settlement Agreement, may have potentially significant impacts. The watershed improvement program is the only element of the Settlement Agreement determined to have potentially significant impacts. These impacts are considered relatively minor and no comments were received regarding these impacts. The water supply management practices may lead to potentially significant and unavoidable impacts on terrestrial resources as a result of the development of groundwater banks in Kern County other than in the KWB Lands and flexible storage provisions. They may also lead to potentially significant mitigable impacts on Delta fisheries resources. As discussed in this FEIR in Subsection 14.2.5.2, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta and have no impact on Delta fisheries resources. See DEIR, pages ES-4 to ES-5. See also FEIR Subsection 4.2.1.1. Therefore, the DEIR and FEIR focus on the impacts that are the result of the facilitation of water supply management practices. Each candidate alternative was evaluated for its ability to avoid or lessen these identified significant impacts.

With respect to the third screening criterion, the lead agency must consider a range of reasonable alternatives which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen the significant impacts of the project alternatives. An EIR does not need to consider every conceivable alternative to a project or projects. In the DEIR the Department did not reject alternatives arbitrarily; it considered a variety of factors. These are discussed in more detail in FEIR Subsections 11.2.3.2 and 11.2.4.

Taking into consideration the criteria for identifying a reasonable range of alternatives, Chapter 11 of the DEIR includes the required analysis of the no project alternative (CEQA Guidelines 15126.6(e)) and an analysis of other alternatives. Because the proposed project is a revision of an ongoing operation (operation of the SWP in accordance with long-term water supply contracts), the no project alternative was defined as described in CEQA Guidelines 15126.6(e)(3) (A). That is, the no project alternative was defined as the continued operation of the SWP in accordance with the un-amended long-term water supply contracts (pre-Monterey Amendment). See FEIR Section 6.1 for more discussion on the baseline in comparison to the no project alternatives. The SWP has been operated for over 12 years since 1996 pursuant to long-term water supply contracts that include the Monterey Amendment. Four versions of the no project alternative are examined in the DEIR because there is disagreement and uncertainty over how to characterize continued operation of the SWP in accordance with the pre-Monterey long-term water supply contracts. They are described on pages 11-1 and 11-2 of the DEIR and include two versions that involve invocation of Article 18(b) as required by the court in *PCL v. DWR*.

Three of the DEIR no project alternatives show different possibilities of what might have happened if the Monterey Amendment had not been implemented in 1995. NPA1, CNPA3, and

CNPA4 all assume that none of the elements of the proposed project would ever have been implemented and examine the impacts of each alternative under those assumptions from 1996 through 2020. NPA2 takes a different approach and analyzes the results of a no project alternative starting from the present. It therefore assumes that actions completed under the Monterey Amendment from 1995 through 2003 would stay in place. Therefore in the 2003 to 2020 analysis, it leaves in place the transfer of the KFE property as well as contractual transfers of Table A amounts and storage programs outside the contractor's service area that were in place before 2003. It assumes that all other parts of Monterey would be rescinded. See FEIR Subsection 11.2.3 for more discussion on no project alternatives.

In addition to the four no project alternatives, the Department compiled a broad range of candidate alternatives to the proposed project that were identified by the Department, suggested by the SWP contractors or suggested by the plaintiffs as described on pages 11-3 through 11-7 of the DEIR.

A number of alternatives were suggested by members of the Settlement Agreement EIR Committee. Some of these suggested alternatives are included in the no project alternatives. Seven alternatives in addition to the four no project alternatives were also examined (see DEIR pages 11-3 through 11-7). Six of the seven were rejected because they failed to meet one or more of the screening criteria. See FEIR Subsection 11.2.3.2 for a discussion on alternatives rejected.

One of the seven suggested alternatives was selected for detailed analysis even though there are questions about its feasibility. The water supply management practices are the cause of most of the potentially significant adverse impacts of the proposed project. Alternative 5, the alternative selected for detailed analysis does not include some or all of the water supply management practices. See FEIR Subsection 11.2.3.1.4 for a discussion on Alternative 5.

### 11.2.2 Compliance with Court's Instructions

Comments addressed in this subsection include: 6-10, 17-8, 30-16, 30-21, 30-22, 30-46, 30-48, 30-64, 30-66, 30-72, 30-138, 30-147, 64-15, 64-34, and 67-5.

Some comments stated an opinion that the DEIR did not include an analysis of the environmental effects of the reductions in Table A amounts that would occur if Article 18(b) was invoked as part of the no project alternative as required in the Court's instructions. Further, some comments state that the court held that the 1994 EIR on the Monterey Agreement was fatally defective under CEQA for failing to analyze implementation of the pre-Monterey long-term water supply contracts, and particularly the permanent shortage provisions of Article 18(b), as part of the EIR's no project alternative and that an adequate EIR must analyze the impacts of eliminating these provisions and invoking Article 18(b). Other comments seemed to argue that the Court's decision meant that the EIR could not examine other no project alternatives in addition to the Article 18(b) alternatives.

While the Court made it clear that a no project alternative with Article 18(b) invoked must be examined in the DEIR, there is nothing in the Court's decision that indicates that analysis of other versions of the no project alternative are unacceptable. Because the Department believes that failure to reach agreement on the Monterey Amendment would not necessarily have led to invocation of Article 18(b), other possibilities were examined in the DEIR. In the absence of the Monterey Amendment, a permanent water shortage could have been declared and Article 18(b) could have been invoked; however, this is not a certainty. It is possible that nothing would have been done or that continuing disagreements among the contractors and the Department could

have led to another agreement or to litigation. The Department believes that the range of no project alternatives, including the two Article 18(b) invocations, present a reasonable range and meet the requirements of CEQA, *PCL v. DWR,* the Superior Court's Order on Remand in *PCL v. DWR,* and the Settlement Agreement. See discussion in FEIR 11.2.3.1.2. See also FEIR Subsections 4.2.2.2, 5.2.1.2, and 5.2.3.1.

The Department believes that the two versions of the no project alternative that include reducing the sum of the Table A amounts to 1.9 million AF (CNPA3 and CNPA4) show two possible alternatives of what might have happened if the proposed project had not been implemented and Article 18(b) of the pre-Monterey Amendment long-term water supply agreements had been invoked. As discussed in FEIR Subsection 13.2.2, the Department came to this conclusion based on the following: if Article 18(b) had been invoked it would not change the amount of water available to the SWP in any particular year, which depends on hydrologic conditions in that year, and regulatory requirements. It would primarily affect the classification the Department would apply to the water, Table A water or surplus water, and the amount allocated to individual contractors. The Department would continue to try to deliver as much of the water requested by the contractors as possible. There is no basis in the long-term water supply contracts for believing that the Department would reduce total exports or eliminate Article 21 deliveries if Article 18(b) was invoked. Elimination of Article 21 would have required a contract amendment which would have been in conflict with the basic terms of the contracts.

Reducing exports was included in the Improved Reliability through Environmental Enhancement Alternative which was rejected as an alternative (see FEIR Subsection 11.2.4).

### 11.2.3 Range Of Alternatives Considered in the DEIR

Comments addressed in this subsection include: 6-1, 6-9, 6-10, 6-19, 11-4, 11-7, 15-3, 16-15, 17-8, 21-47, 21-48, 21-50, 21-51, 22-20, 26-6, 30-7, 30-16, 30-21, 30-22, 30-44, 30-46, 30-47, 30-48, 30-64, 30-66, 30-72, 30-138, 30-147, 30-151, 30-152, 31-4, 31-6, 35-8, 64-15, 64-17, 65-3, 65-7, 65-15, and 67-5.

#### 11.2.3.1 Alternatives Evaluated in the DEIR

A number of comments were critical of the range of alternatives analyzed in the DEIR. The CEQA Guidelines, based on *Citizens of Goleta Valley and Laurel Heights*, make it clear that the lead agency is responsible for selecting its objectives and a reasonable range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. This approach in these cases was recently confirmed by the California Supreme Court in *In re Bay-Delta.*

##### 11.2.3.1.1 Alternatives with Broader Objectives

As discussed in FEIR Subsection 5.2.1.2, the Department operated the SWP in accordance with the long-term water supply contracts for more than 30 years prior to the Monterey Amendment. The changes made to the long-term water supply contracts by the Monterey Amendment are probably the most substantial amendments since the agreements were signed in the early 1960's. However, they did not change the basic purpose of the SWP which is to divert and store surplus water during wet periods and distribute it to 29 contracting agencies. The changes included in the Monterey Amendment, while significant for the contractors and the Department, do not "fundamentally change" the SWP's "essential mission" nor its statewide environmental accountability.

Some comments asked that the Department "find a solution to California's water needs that will protect the environment and be resilient in the face of climate change." Other comments similarly suggest that the DEIR should have broader objectives and that would fundamentally change how the SWP is operated. Although the Department and the contractors might have been able to choose a project with broader objectives, CEQA does not require this to be done. See discussion on this issue in FEIR Chapter 5 Subsection 5.2.1.2.

Other comments suggest that the proposed project should mitigate for impacts caused by the operation of the SWP. This EIR examines changes resulting from the proposed project (Monterey Amendment and Settlement Agreement) and its potential environmental impacts. It is not an EIR on all the operations and impacts of the SWP on all of the problems regarding the Delta or relating to land use and water supply. This EIR does not need to address all of the environmental impacts that may be associated with operation of the SWP before the Monterey Amendment. Those impacts would continue to exist even if there were no proposed project, and thus under CEQA they are part of the baseline conditions rather than program-generated environmental impacts that determine the required range of program alternatives. The EIR only needs to study in detail the adverse impacts generated by the proposed project and mitigation measures and alternatives that address those project-generated impacts. See discussion of this issue in FEIR Chapter 5 Subsection 5.2.1.1.

After independently considering and reviewing the original Monterey Agreement objectives, with advice from the EIR Committee established by the Settlement Agreement, the Department decided to characterize the Monterey Amendment objectives as those listed on pages 4-1 and 4-2 and further described in Chapter 4 of the DEIR. These objectives are very close to the goals of the Monterey Agreement. See DEIR page 3-3 to 3-4. See also FEIR Subsection 5.2.1.2. As stated in the DEIR in Chapter 11 (and further discussed in FEIR Subsection 11.2.1), the selection of alternatives that would be subject to detailed analysis was guided by the screening criteria discussed above in FEIR Subsection 11.2.1.

#### 11.2.3.1.2 Range of Alternatives

Five alternatives to the proposed project were examined in detail in Chapter 11 of the DEIR. They included four no project alternatives (NPA1, NPA2, CNPA3 and CNPA4), and an additional alternative (Alternative 5).

The five alternatives provide the public and decision-makers with information on the consequences of various courses of action, other than the adoption of the proposed project. The information enables the public and decision-makers to compare the environmental consequences of possible alternative courses of action that could have been taken in 1995 or that could be taken today with the baseline and with the environmental consequences of the proposed project. Alternative 5 is discussed in FEIR Subsection 11.2.3.1.4.

In a conventional EIR on a proposed plan or policy change, there would only be one "no project" alternative that would represent continued activities in accordance with existing plans or policies. However, four no project alternatives to the proposed project were examined in detail in Chapter 11 of the DEIR. All of the alternatives involve some speculation on how the long-term water supply contracts might have been implemented in the past without the Monterey Amendment. One of the "no project" alternatives (NPA1) is almost the same as the baseline scenario but it includes development of a state-owned water bank on the KFE property. Development of a state-owned water bank on the KFE property was not included in the baseline scenario because it was not in existence in 1995 before the Monterey Amendment was executed. Two "no project" alternatives (CNPA3 and CNPA4) involve two variations of

invocation of Article 18(b) and a reduction in the sum of the Table A amounts. These three no project alternatives are theoretical alternatives because they assume that certain actions that have taken place in the past would not have occurred and that other actions which did not take place might have occurred. The alternative then analyzes the impacts of those actions on water supply and the environment, including projections to 2020. A fourth no project alternative is based on a different approach. It (NPA2) assumes that elements of the proposed project that were implemented prior to 2003 (the present) would stay in place. It does not include the Settlement Agreement or any of the elements of the Monterey Amendment that would be implemented in the future (2003 to 2020).

Collectively, these four alternatives (and the other alternative analyzed) provide the public and decision-makers with information on the consequences of various courses of action, other than the adoption of the proposed project. NPA1 is the only no project alternative that continues operation of the SWP from 1996 to 2020 under the long-term water supply contracts as it was operated before the Monterey Amendment. NPA2 is the only no project alternative that continues operation of the SWP as it is operated today (2003) which includes Monterey Amendment actions implemented prior to 2003 but with limited future Monterey Amendment actions.

Some comments question the likelihood that any of these alternatives present a “true no project” scenario; some argue that some or all of the alternatives considered but rejected should be characterized as project alternatives; and some argue that some or all of the alternatives are unrealistic or hypothetical, portraying events that could not occur. However the Department believes that the no project alternatives analyzed provides a reasonable range of alternatives that provides information on choices that might have been made or could be made that is useful to the public and decision-makers. This range of alternatives also provides important information on impacts of individual elements of the proposed project.

#### 11.2.3.1.3 Treatment as a Package

Some comments stated that the range of alternatives considered in the DEIR was artificially constrained by the treatment of the Monterey Amendment and the Settlement Agreement as inseparable packages. As discussed in FEIR Chapter 5 Subsection 5.2.3.1, the DEIR describes the negotiations leading to the two agreements and explains they were each meant to be a package to those who signed the agreements. Contrary to the comments, however, the selection of alternatives was not constrained by a requirement that the proposed project must be a package of provisions that must be accepted or rejected in their entirety. See the discussion in FEIR Subsection 11.2.1.

#### 11.2.3.1.4 Alternative 5

*Description of Alternative 5*

Alternative 5 does not include the water supply management practices described in Articles 54 and 56 of the Monterey Amendment that are the cause of most of the potentially significant adverse impacts of the proposed project, including the impacts on Delta fisheries. It is described on page 11-3 of the DEIR as follows:

- **Alternative 5** would be the same as the proposed project except that the Monterey Amendment water management practices would not be implemented. It would include the same Table A transfers and retirements as the proposed

project, the altered water allocation procedures, and the transfer of the Kern Fan Element lands and conveyance of non-project water.

Alternative 5, as analyzed in the DEIR, would be similar to Alternatives NPA1, CNPA3, and CNPA4, in that it shows what might have happened if Alternative 5 had been implemented in 1996 and would have eliminated all environmental impacts identified from the proposed project except for impacts in Plumas County. Comment 16-15 states that to qualify as an actual project alternative, Alternative 5 cannot be presented in an historical perspective and it suggests that in an actual project alternative, impacts occurring from 1996 to 2003 would be identical to the proposed project and that future impacts to Delta fisheries could still occur due to water supply management practices such as deliveries to existing out-of-service area storage programs, although impacts would be less than those of the proposed project. If presented in this manner the impacts of Alternative 5 would be the same as the proposed project for 1996 to 2003 and similar to but less than the proposed project in the future. See Response to Comment 16-15.

Alternative 5 was examined in the DEIR because it met some of the objectives of the Monterey Amendment, including reduced hardship for agricultural contractors in dry years, while avoiding impacts to Delta fisheries. Because Alternative 5 omits major provisions of the Monterey Amendment, some comments argue that Alternative 5 does not meet the basic or fundamental objectives of the proposed project and is infeasible because Articles 54 and 56 were part of the full Monterey Amendment that balanced the interests of the agricultural contractors, the municipal contractors and the Department. In approving the Monterey Agreement, the M&I contractors accepted the removal of the provision in the long-term water supply contracts that required that agricultural contractors be subject to the first cutbacks during water shortages provided that the M&I contractors could get improved access to Article 21 water and improved ability to store SWP water. Removing the water management practices, particularly storage outside of the service area and flexible storage, would upset the balance and favor agricultural contractors.

These and other comments suggest that Alternative 5 would not meet all the basic objectives of the Monterey Amendment and would be infeasible because it breaks up the package of provisions contained in the Monterey Amendment or because it is infeasible from both an institutional and legal standpoint. See DEIR page 11-3. While it was recognized that there was doubt as to whether Alternative 5 meets most of the objectives of the Amendment or whether it was institutionally and legally feasible, it was analyzed at the same level of detail as were the proposed project and the no-project alternatives because it would lessen the potentially significant adverse impacts of the proposed project, would meet several of the proposed project's objectives and would provide the public and decision-makers with useful and more complete information on how it would affect different contractors and the environment.

### *Range of Alternatives not too Narrow*

Some comments are critical of the fact that Alternative 5 is the only action alternative considered in addition to the proposed project and that the DEIR states that Alternative 5 is probably infeasible. They claim that the range of alternatives is too narrow and that alternatives need only meet most of the objectives. Several alternatives and project features were suggested by the advisory committee during development of the DEIR, and were included as part of the no project alternatives in the DEIR. As stated on page 11-3 of the DEIR, the plaintiffs suggested a number of alternatives that were contained in a letter to the Department from the PCL (see Comments 30-151 and 30-152). Some of the nine alternatives suggested in this letter were analyzed in detail in the DEIR. The Article 18(b) No Project Alternative is the same as CNPA3 and CNPA4, both of which are analyzed in the DEIR. The Monterey Today – Current

Operations Alternative is the same as NPA2, which is analyzed in the DEIR. The Kern Fan Retention Alternative, which would retain the KFE property in state ownership, is a part of NPA1, CNPA 3, and CNPA4, and is thus analyzed in the DEIR. Similarly, the No Kern/Castaic Transfer Alternative, which would not include the transfer of 41,000 AF of Table A amount from KCWA to Castaic Lake WA, is a part of NPA1, CNPA3, and CNPA4, and is thus analyzed in the DEIR.

The California Supreme Court recently reaffirmed in *In re Bay-Delta* (pages 1162-1169, see especially page 1165) that an EIR's consideration of alternatives is based on the rule of reason considering the facts and circumstances involved. The focus of the Supreme Court was not on whether a rejected alternative met some or most of the objectives but rather on whether the lead agency has reasonably determined that the rejected alternative cannot achieve the project's underlying fundamental purpose. The Supreme Court recognized that, in certain instances, when the proposed project reflects a negotiated solution to a problem that provides benefits for different parties, the CEQA analysis can reject alternatives that do not achieve all of the objectives concurrently.

The underlying fundamental purpose of the Monterey Agreement and the Monterey Amendment is to resolve conflicts and disputes between and among the urban and agricultural SWP contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. One key objective of the Monterey Agreement and the Monterey Amendment is to facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies. The primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits. See FEIR Subsection 5.2.1.2.

There are similarities between the Monterey Amendment and CALFED regarding solutions supportable by competing interests. It was the disagreements among the contractors and the Department in the mid-1990s over how the SWP water supply contracts were to be interpreted and water supply allocated between agricultural and M&I contractors, as well as difficulties with other issues including potential development of the planned KWB, that led to the Monterey Agreement. As with the Monterey Agreement, the CALFED solution was, to paraphrase the court's decision on page 1165 regarding the CALFED process, established "to reduce the conflicts and provide a solution that competing interests could support….accordingly the PEIS/R describes its integrated approach to achieving all …objectives concurrently as 'the very foundation of the Program.' …Nothing less can achieve the underlying fundamental purpose of reducing conflicts by providing a solution that competing interests can support."

In *In re Bay-Delta* the Supreme Court also recognized that Bay-Delta ecosystem restoration to protect endangered species is mandated by both state and federal endangered species laws, and for this reason water exports from the Bay-Delta ultimately must be subordinated to environmental considerations. This DEIR and FEIR both recognize that the Monterey Amendment actions are subject to the endangered species laws as well as other regulatory processes including State Water Resources Board Decison1641. Any actions designed to resolve the water allocation and other issues among the Department and the SWP contractors, including the Monterey Amendment and the actions it facilitates, are subordinated to these legally binding environmental restrictions.

Even if the Monterey Amendment negotiations are considered to be fundamentally different from those of the CALFED process, and CEQA were to require a Monterey Amendment

alternative that does not meet all the project objectives, even though one party may lose some of its benefits, this EIR would satisfy such a requirement. Alternative 5 meets this requirement. The potentially significant impacts of the proposed project are all attributable to the water supply management measures. Alternative 5 is an alternative that could lessen the significant impacts of the proposed project, including any potential impact to the Delta, and still meet some of the objectives of the proposed project.

### 11.2.3.2 Alternatives Considered but Rejected

Some comments stated that numerous alternatives were presented and that the Department unreasonably rejected them. The DEIR provided an explanation of why the remaining six alternatives suggested by the PCL were eliminated from consideration and not analyzed in detail in Chapter 11. The following paragraphs summarize the process used to identify alternatives for detailed evaluation in the DEIR and explain why the six suggested alternatives were rejected. For a complete explanation of the alternatives evaluation process, see pages 11-2 through 11-7 of the DEIR.

Some of the comments raise questions about the DEIR's conclusions with regard to feasibility. For example Comment 21-50 challenges the determination that the Monterey Amendment is not an appropriate tool for mandating "local water enhancements" and that there are other forums where these concerns can be discussed as part of a comprehensive process. The comment states that the distinction is arbitrary and that nothing precludes the Department from evaluating an alternative of this nature and that in fact there is some authority that suggests analysis of just such an alternative is required. As the Supreme Court reaffirmed in *In re Bay-Delta* (page 1163), the lead agency must consider a range of reasonable alternatives which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen the significant impacts of the project alternatives. The court stated that the EIR does not need to consider every conceivable alternative to a project or projects. Feasible is defined as being "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."

In the DEIR the Department did not reject alternatives arbitrarily because they required legislation or because they would reduce dependence on exports from the Delta as suggested by footnote 27 in comment 21-50. The Department considered a variety of factors including the nature of the alternative, its ability to achieve most of the project objectives and its ability to meet the fundamental purpose of the proposed project, its consistency with traditional legislative and administrative allocations of responsibility, the likelihood of achieving a state-wide or local consensus, whether the alternative was more appropriately considered in other forums and other factors. In *City of Del Mar* (909), the court found that "feasibility" under CEQA can encompasses "desirability" [of a plan or action] to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors. The court recognized that a finding of feasibility involves a balancing of factors and that the responsibility under CEQA was not whether the result was the right one but whether the proper consideration and balancing occurred. See discussion in FEIR 11.2.4 on factors considered in rejecting an alternative of reduced demand or water supply.

As described on page 11-2 of the DEIR and presented in FEIR Subsection 11.2.1, alternatives were evaluated with respect to three criteria. The following alternatives were rejected for detailed study for the reasons explained in the DEIR and summarized below. An alternative only needed to fail with respect to a single criterion to be rejected. Most of the alternatives failed to meet more than one criterion. Some of the alternatives suggested would not reduce or lessen significant impacts that might result from the proposed project and with the exception of

the Buildout SWP Alternative, the alternatives meet few, if any, of the objectives and for this reason alone they were rejected. In addition, even if they were to be found to meet some of the objectives, the conclusion of the DEIR was that they were infeasible.

- **Buildout SWP Alternative**. This alternative would involve building sufficient new state-owned water supply facilities to deliver 4.2 million AF of water in all but the driest of years. The Department's efforts to complete new storage and conveyance facilities have had limited success since the early 1970s. Even if political and financial obstacles can be overcome, this alternative could not be implemented in the near term. Although this alternative would meet some of the objectives of the Monterey Amendment it was rejected because it cannot be feasibly implemented in a reasonable period of time to resolve immediate needs relating to how to allocate SWP water supplies and improve near term reliability. The Monterey Amendment is not inconsistent with longer term processes which include objectives to complete new storage and conveyance facilities.

- **Dry Year Reliability Alternative with and without an Urban Preference.** These alternatives would require the Department to introduce a new level of water management by the state that would enable it to guarantee water to urban contractors in multiple year droughts and prevent the proposed project from inducing new urban growth. These alternatives are different projects with different objectives. They were rejected because they did not meet most, if any, of the proposed project objectives and because they were deemed infeasible because the expansion of state powers that would be needed to implement the alternative is not likely to be acceptable to state, regional or local entities. While legislation to accomplish this expansion is theoretically possible, it is not likely given the opposition that would arise. See further discussion of this alternative in FEIR Subsections 11.2.4.1 and 11.2.4.2.

- **Improved Reliability through Environmental Enhancement Alternative**. This alternative would result in a reduction in water pumped from the Delta either through a mandatory or theoretical demand reduction based on implementation of water use efficiency and other measures that would reduce demand. It was also suggested that this alternative allocate 50 percent of Article 21 water for environmental purposes. This alternative is also a different project with different objectives. This alternative was rejected because it would not meet any of the project objectives. It was also rejected because it would also be in conflict with the basic terms of the long-term water supply contracts and is, therefore, considered infeasible. See further discussion of this alternative in FEIR Subsection 11.2.4.2.

- **Coordinated CVP-SWP Systems Alternative**. This alternative would involve more closely coordinating operation of the SWP and CVP to increase exports from the Delta. This possibility was considered by the Department and Reclamation in 2003, but would depend on increasing pumping at the Banks Pumping Plant, which has become increasingly unlikely in the last five years in light of current concerns over fisheries resources in the Delta. The alternative was rejected because it would not meet any of the objectives of the proposed project and it would not lessen the impacts of the proposed project.

- **Kern Fan Transfer with Trust Conditions Alternative**. This alternative would impose a requirement that water stored in the KWB would be used to provide statewide environmental benefits. This alternative is also a different project with different objectives. It would not meet any of the project objectives. Use of the KWB Lands for

environmental purposes would require finding appropriate funding sources and reaching agreement with the local authorities.

A number of the comments on the DEIR specifically criticize the reasoning for rejecting the No Urban Preference and Dry Year Reliability Alternatives, the Improved Reliability through Environmental Enhancement Alternative and the Kern Fan Transfer with Trust Provisions Alternative. The primary objective of these alternatives appears to be environmental improvement, particularly in the Delta and with regard to land use, rather than the objectives of the proposed project as described in the DEIR. The DEIR considered these issues, but concluded that the Monterey Amendment was not an appropriate tool for mandating these types of changes. These suggested changes were rejected as alternatives because they did not meet the project objectives. They are not alternatives to the proposed project, but rather different projects with different objectives designed to address issues related to operation of the SWP as a whole or to address issues only tangentially (or not at all) related to the SWP or the Monterey Amendment. See FEIR Subsections 5.2.1.2 and 11.2.4. The DEIR concluded that the Monterey Amendment is not an appropriate tool for mandating the changes suggested by these proposed alternatives which are new proposed projects with completely different objectives. See FEIR Subsections 5.2.1.2 and 5.2.3.1 for more discussion on this issue. See FEIR Subsection 11.2.4 for more discussion on the Dry Year Reliability and Reliability through Environmental Enhancement Alternatives, including a discussion of why mandatory conservation measures were not considered alternatives to the proposed project. See FEIR Subsection 16.2.5 and Response to Comment 30-44 in Chapter 16 for more discussion on how the Kern Fan Transfer with Trust Provisions is a new project with new objectives and not an alternative to the proposed project.

### 11.2.4 Increased Water Conservation and Recycling and Less Delta Pumping Alternative

Comments addressed in this subsection include: 6-9, 6-10, 17-8, 19-2, 21-48, 21-49, 21-50, 21-56, 30-7, 30-22, 30-47, 30-151, 30-152, 31-4, 31-6, 35-8, 36-5, 36-14, 36-18, 36-19, 64-34, and 65-15.

Some comments stated that the DEIR should have considered a broader range of alternatives including increased conservation, recycling and other local water system enhancements; Department-mandated best management practices to reduce urban demand for water; reduced diversions or exports from the Delta; and allocation of water for Delta and fisheries benefits. As a result of comments received, the Department re-examined these alternatives reviewed and rejected in the DEIR. The Department believes that the conclusions of the DEIR that these alternatives do not meet the screening criteria were correct. The discussion below summarizes, clarifies and amplifies the basis behind this conclusion.

As discussed in FEIR Subsection 11.2.3.2, the DEIR considered these issues, but concluded that the Monterey Amendment was not an appropriate tool for mandating these types of changes. However, the DEIR does not avoid the demands facing the State and the Delta either with regard to growth and water availability (see Chapters 8 and 9 on Growth and Water Reliability in the DEIR and the FEIR), with regard to the stresses facing the Delta (see Section 7.3 in the DEIR and Section 7.2 on fisheries in the FEIR) or with regard to challenges posed by climate change (Chapter 12 in the DEIR and Chapter 12 in the FEIR). Application of the Monterey Amendment is not inconsistent with other water policy actions. As stated in FEIR Subsection 5.2.1.2, the primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the

available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits. Physical, legislative, administrative or judicial changes that affect water supply or benefit the environment may impact how the Monterey Amendment is applied.

The DEIR also recognized that there were administrative and legislative efforts that could address these concerns as part of other comprehensive statewide processes. (DEIR pages 11-5 through 11-7). See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection.

The comment letters make one or more of three points which are discussed in more detail below:

- communities should reduce their demand or need for water from the Delta through increased water conservation and recycling;
- Delta pumping should be reduced; and
- an assessment of the safe yield of water from the Delta should be made and Article 18(b) should be invoked.

### 11.2.4.1 Reducing Demand - Water Conservation and Recycling and Land Use Decisions

Some of the comments state that the EIR should consider a condition in which requests for water from the Delta are less than Table A amounts or that would not include requests for Article 21 water. Some of the comments suggest that the EIR should consider conditions in which SWP contractor demands for water are decreased. Some of these comments also urge adoption of an alternative that involves greater water conservation and recycling or various land use controls. The comments also express concern that the Department does not evaluate which users are practicing water conservation and which are not, even when such exports will intensify the impact on the Delta.

#### 11.2.4.1.1 Reducing Demand would not Meet Project Objectives

Water conservation and recycling may be proposed as a demand reduction alternative. However, increasing water supplies available to the SWP is not an objective of the proposed project. Increasing water conservation and recycling within SWP contractor's service areas would not meet most of the objectives of the Monterey Amendment including the principal objective that was to resolve disputes among the contractors with respect to the allocation of SWP water, particularly during dry periods. The Monterey Amendment reallocates water among the SWP contractors but has little effect on overall availability of SWP water. Consequently, increasing water conservation and recycling to curb water demand within the SWP service area may help local water suppliers meet local demand, but it does not represent an alternative to the proposed project.

The DEIR did not include an analysis of reducing demand as an alternative, nor did it evaluate the implications of reduced demand for SWP supplies. Such an evaluation of reducing demand would require a study of each of the 29 SWP contractors and an evaluation of the impacts on each contractor of methods of reducing demand. Demand reduction for the 29 SWP contractors is not an objective of the proposed project and is beyond the scope of this EIR. As discussed in the DEIR on pages 11-5 and 11-6, demand reduction was an alternative that was rejected

because it would not meet any of the project objectives as listed in DEIR Subsection 4.3.1. See FEIR Subsection 11.2.4.2 for a discussion on the effects of reducing supplies by reducing Delta pumping.

Even though reducing demand is not an objective or alternative of the proposed project, the Department recognizes that it is an issue of concern to some comments and includes the following discussion regarding water conservation and recycling and demand reduction.

#### 11.2.4.1.2 Water Supply Reliability and Delta Problems not Solved by Reduced Demand.

Some comments claim that increased conservation and more efficient water management practices could reduce the demands for water by SWP contractors. The comments point out that for a variety of physical, hydrologic and regulatory reasons, higher levels of water conservation and efficient water management practices are likely in the future. The Department agrees. Conservation is an essential element in facing California's water challenges. However, higher levels of water conservation and more efficient water management practices are still unlikely to reduce the demand for SWP supplies considering the consistent increase in population within the SWP service area and reduction in the supply of other sources of water. See FEIR Subsection 15.2.3. In addition, conservation alone cannot adequately address climate change and the declining health of the environment, all of which continue to reduce water supply reliability in the Delta. See FEIR Subsections 6.2.2 on climate change and changing hydrologic conditions and Subsection 7.2.2.1 on changing regulatory conditions.

The Department cannot directly reduce its contractors' demands through a direct mandate, nor can it assume that reduced demand would restrict the timing and rate of Delta export pumping to protect water quality and endangered species and other aquatic resources in the Delta.

*Land Use Decisions*

Other comments argue that changes in urban development patterns that would encourage infill and reduce urban sprawl could also reduce the demand for water by SWP contractors. Although the DEIR identifies different levels of development with regard to potential growth inducement caused by the proposed project, it does not include an analysis of changing demands based on specific urban development patterns. While it is possible that urban development patterns may change, for this EIR to try to identify where and how the changes would take place and whether or how that might change SWP demands is extremely speculative and very difficult, if not impossible to quantify. The Department is not aware of any studies or methodology that would enable it to predict such changes.

As discussed in FEIR Subsection 8.2.2.2, the level of detail contained in the DEIR for growth-inducing impacts and reliability analyses is consistent with the general level of review required for the Monterey Amendment. Even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities, local water resources and local water use. The potential environmental impact of growth is subject to more detailed environmental review at the project level. Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Even if the Department had the authority to make such decisions at this level of detail, it is not timely or practicable for the Department to identify and monitor or regulate individual decisions made by local government or to establish general rules that would govern these

decisions. These decisions are within the authority and control of and properly deferred to local decision-makers where specific projects can be more fully described and are ready for detailed analysis. This approach is consistent with the traditional legislative policy that fundamental decisions regarding land use and growth are made through the general planning process at regional and local levels. See FEIR Subsection 8.2.2.2. The Department's role in water reliability planning is discussed in FEIR Subsection 9.2.6.

These comments on land use are closely related to comments that urge the Department to reconsider the Dry Year Reliability alternatives. These comments appear to be based on a concern about the relationship between local permitting of new urban developments and the availability of adequate water supplies. These alternatives are not alternatives to the proposed project. They are new proposed projects with completely different objectives that would have required the parties to the SWP contracts to make significant changes in how land use decisions are made and where growth should occur. See FEIR Subsection 5.2.1.2 regarding the fact that the EIR does not need to consider broader objectives.

While concerns about local land use decision-making and the availability of adequate water supplies may be a valid concern, as the DEIR states at pages 11-4 and 11-5, the Monterey Amendment is not an appropriate tool for dealing with these concerns. The proposed alternatives suggest a significant and unusual institutional change - land use planning objectives imposed by a non-regulatory state entity, the SWP. As discussed above, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Even if the Department had the authority to make such decisions at this level of detail, it is not timely or practicable for the Department to analyze each individual decision made by local government that might rely upon increases in SWP water from the proposed project and then to monitor or second-guess each individual decision made by local government or to establish general rules that would govern these decisions. Nor would it meet most, if any, of the objectives of the Monterey Amendment. The Department rejects the idea that it should use its management of the SWP to manage or block future economic growth including housing that would serve the State's growing population. The Department's role in water reliability planning is discussed in FEIR 9.2.6. See also FEIR Subsections 11.2.4.1.1 and 8.2.2.2.

### 11.2.4.1.3 Water Policy Initiatives Related to Water Conservation, Recycling and Land Use Planning

As discussed in FEIR Subsection 8.2.2.2, although the Department does not have statutory authorization to establish mandatory requirements regarding water reliability and growth, it supports local and regional water planning and conservation efforts through statewide planning and through grants and local assistance programs. Demand reduction and water conservation strategies are important tools in water management planning and the Department is involved in a number of legislative and administrative actions designed to provide a regional or statewide approach to these strategies. See DEIR pages 11-5 through 11-7. The Department is taking a leadership role and is actively involved in many of these efforts. See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection. As discussed above, such measures are not alternatives to the Monterey Amendment and implementation of such measures would not be affected by the Monterey Amendment.

#### 11.2.4.1.4 Demand and Water Reliability

EIRs are expected to evaluate impacts that are reasonably foreseeable. The DEIR may overstate the amount of water that is available for allocation to the SWP contractors because current regulatory constraints on Delta export pumping are more stringent than the 2003 conditions used in the DEIR and future SWP deliveries are likely to be reduced compared to 2003 conditions. If the DEIR overestimates deliveries, the consequence is that it also overestimates environmental impacts. In an environmental disclosure document such as an EIR, it is better to overstate than to understate the potential impact so that the public and decision makers can see the full environmental extent of their decisions. See FEIR Subsection 6.2.2.2.

Some comments appear to express a concern that local governments and other decision makers might rely on the EIR delivery estimates in determining the reliability of SWP water. Overstating the amount of water available could be a problem in documents that are relied upon for determining water reliability. The values in this EIR analysis should not be used to estimate current available SWP water or the reliability of future deliveries. There are other tools that are intended to help determine the reliability of water such as Urban Water Management Plans and the Reliability Report released by the Department. See FEIR Chapter 9 on water supply reliability. See also FEIR Subsection 6.2.2.2.

### 11.2.4.2 Reducing Delta Pumping

Some of the comments cite to the Court of Appeal case that was reviewed by the Supreme Court in *In re Bay-Delta* as authority for a requirement that the EIR consider reduced pumping as an alternative. The Supreme Court overturned the Court of Appeal's decision on this issue for a variety of reasons, concluding that the rule of reason must guide the appropriate determination of a range of reasonable alternatives. See discussion in FEIR Subsections 11.2.3.2 and 5.2.1.2.

Reducing exports would not meet most, if any, of the proposed project objectives. While reductions in pumping from the Delta might help mitigate impacts of the SWP in general or other projects unrelated to the SWP, these are not impacts of the proposed project and are not covered in this EIR. The DEIR concluded that there was a small, but potentially significant, impact from the proposed project on fisheries due to future application of the water supply management practices as a result of increased exports. Under the current regulations that limit SWP export pumping in the winter and spring, San Luis Reservoir would fill less often and the SWP would remain supply-limited almost all of the time. As a result, there will be fewer opportunities for the added Delta exports that would provide water supply benefits as a result of the water supply management practices.

As discussed in FEIR Subsection 11.2.3.1.4, the DEIR identified an alternative that could have avoided or substantially lessened potential significant adverse impacts that could result from the proposed project due to an increase in pumping from the Delta. The Department has also determined that compliance with the requirements of the existing regulatory process under the circumstances described in the DEIR and FEIR will comprise the mitigation measures that will minimize, avoid or reduce potential effects to a less than significant effect on the Delta aquatic environment from the proposed project now and in the future. The Department has determined that relying on the existing regulatory process is not improper deferral of mitigation.

The Department has concluded that reduced pumping is not a feasible alternative to the proposed project. The discussion which follows summarizes and clarifies the considerations in the DEIR that support this conclusion.

### 11.2.4.2.1 Rejected Alternatives do not Meet Project Objectives

Some comments suggest that the DEIR should examine rejected alternatives such as the Dry Year Reliability and Improved Reliability through Environmental Enhancement alternatives that reduce Delta exports and pumping below the baseline condition in order to meet CEQA requirements.

It is questionable whether the Dry Year Reliability Alternatives would reduce Delta pumping. Even if it did reduce exports, the DEIR concluded that the Dry Year Reliability and Improved Reliability through Environmental Enhancement alternatives would not meet most, if any, of the proposed project objectives. Some comments argue these alternatives would meet some or all of the proposed project objectives. For example, Comment 21-48 states that it appears that the No Urban Preference and Dry Year Reliability alternative appears to "resolve many of the disputes between the parties and satisfy other objectives of the project if implemented correctly" and the Improved Reliability through Environmental Enhancement "could, in fact, meet all of the objectives of the project by enhancing the ability of the SWP to deliver water reliably by restoring the ecosystem services that make water delivery possible and by lessening the need to constrain water operations to protect those ecosystem services (see also Comment 30-47)."

As discussed in FEIR Subsections 5.2.1.1 and 5.2.1.2, this is an EIR on the Monterey Amendment and the Settlement Agreement, not an EIR on the SWP, and addresses fairly narrow changes to the long-term water supply contracts that arose primarily out of conflicts and disputes among the urban and agricultural contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. The Department does not agree that the alternatives would "restore the ecosystem" or lead to "lessening the need to constrain water operations to protect those ecosystems." Even if those alternatives did so, the Department does not agree that they meet most of the proposed project objectives. Certainly in the short term, if not in the long term, the alternatives would most likely increase times of shortage and increase conflicts and disputes among the contractors and the Department. They would also increase financial pressures on agricultural contractors in times of drought and supply reductions. They could also reduce the benefits of the water supply management practices by reducing the amount of water available to contractors and reducing the flexibility of the SWP system.

As discussed in FEIR Subsection 11.2.3.2, the alternatives mentioned are not only infeasible; they are really different projects addressing different objectives. The Improved Reliability through Environmental Enhancement Alternative is not an alternative to the proposed project. It is a new proposed project with completely different objectives that would have required the parties to the SWP contracts to make changes to basic contract premises regarding availability of water. See FEIR Subsection 5.2.3.1 regarding the fact that the EIR does not need to consider broader objectives.

While increased water efficiency and protection of the Delta are valid public policy concerns, the Monterey Amendment is not an appropriate tool for implementing such changes. As discussed on pages 11-4 and 11-5 of the DEIR, even if it had the legal authority, the Department does not consider the Monterey Amendment process an appropriate forum for the significant and unusual institutional change suggested – institutionalization of water conservation and reallocation of water for environmental purposes. These concerns are being seriously discussed in a number

of more appropriate arenas, including water policy actions by the legislature and the implementation of the endangered species laws. See FEIR Subsection 11.2.4.2.8 on water policy actions and FEIR Subsection 7.2.2.1 on endangered species laws.

### 11.2.4.2.2 Increasing Exports is Not an Underlying Purpose of Proposed Project

Some comments urge the Department to reconsider alternatives that would reduce water supplies. These comments appear to be based on a view that one of the project objectives is (or should be) increased water supplies and a concern about the health of the Delta. An alternative would then be decreased water supplies that would improve the health of the Delta. Reducing exports is not considered as an alternative because it would not meet any of the objectives or the fundamental purposes of the proposed project. The underlying fundamental purpose of the Monterey Agreement and the Monterey Amendment is to resolve conflicts and disputes between and among the urban and agricultural SWP contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. One key objective of the Monterey Agreement and the Monterey Amendment is to facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies. The primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits. See FEIR Subsection 5.2.1.2.

### 11.2.4.2.3 Changes in Long-Term Water Supply Contracts to Provide Water for the Environment Not a Feasible Alternative

In some cases, the proposed alternative was rejected because it would conflict with the basic terms of the water supply contracts; for example reducing available SWP supply by foregoing otherwise permitted Delta exports to provide for environmental purposes that are not required and do not have an SWP purpose. Some comments suggest that this is not a legitimate reason to reject an alternative since the Monterey Amendment involves changes to the basic water supply contract and that the SWP contractors and Department could have elected to change the contract to provide water for the environment. Some comments specifically suggested that the Department should not continue to operate the SWP under the Monterey Amendment, but instead should revert to the pre-Monterey Amendment long-term water supply contracts and invoke Article 18(b) to reduce Table A amounts for each contractor and also eliminate delivery of Article 21 water.

As discussed in FEIR Subsections 13.2.2 and 9.2.5.3, eliminating Article 21 water is inconsistent with both the pre and post Monterey Amendment contracts and would not meet any of the objectives of the proposed project. Such an action would require the contractors and the Department to agree to an amendment to the contracts that would change the fundamental purpose and objectives of the existing long-term water supply contracts. As discussed in FEIR Subsection 5.2.1.2, the changes, while significant for the contractors and the Department, do not “fundamentally change” the SWP’s “essential mission nor its statewide environmental accountability.” The water available to the SWP continues to be delivered to the same urban and agricultural contractors and the SWP continues to operate in accordance with environmental regulatory constraints, including requirements for water quality and endangered species protection.

The Department does not believe the contractors would have been willing to consider changes to the contract which would have reduced supplies and made the shortage problems worse – a

result that would have fundamentally changed the SWP contracts. The Department is unaware of any reason why the contractors would agree to such an amendment. The reasoning behind the suggestion to reduce Table A amounts and eliminate Article 21 water is that it would reduce the amount of water the SWP could pump and thereby reduce stress on the Delta and clarify the reliability or lack of reliability of SWP water supplies. As discussed below, there are other means to deal with these concerns that do not involve changes to the long-term water supply contracts.

During the preparation of the DEIR, and in trying to determine how to comply with the court's order on Article 18(b), the Department reviewed various ways to invoke Article 18(b) including invocation of Article 18(b) with no delivery of Article 21 water to SWP contractors. The invocation of Article 18(b) without Article 21 deliveries was not considered in detail in the DEIR because the Department concluded that it would not meet any of the objectives of the Monterey Amendment and because it would be in conflict with the basic terms of the long-term water supply contracts. See discussion on pages 11-5 and 11-6 in the DEIR. The Department also determined, after considerable discussion, that it would not have invoked Article 18(b) in this manner at any time in the past, nor into the near-term future. However, in response to comments, the Department has developed an analysis of the effects of operating the SWP with Article 18(b) invoked and with limited or no Article 21 water delivered to SWP contractors. Although the Department believes that Article 18(b) would not have been invoked in this way, nevertheless, this analysis provides additional information to the public and to decision-makers on the effects of not delivering water to SWP contractors that would otherwise be available under Article 21. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3.

#### 11.2.4.2.4 Mitigation Can Reduce Proposed Project Impacts on Delta to Level of Insignificance

The terms of the long-term water supply contracts, including the Monterey Amendment, do not determine how the Department will operate the SWP facilities to meet regulatory requirements, but determine how SWP supplies and costs are allocated among the contractors. The terms may also determine how exported water is managed and where SWP contractors might store SWP water (if it is to be stored) if they have been allocated sufficient SWP water to store after meeting current needs. To the degree that hydrologic and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. The Monterey Amendment cannot and does not change hydrologic conditions or regulatory requirements in effect at the time of export, including applicable permits and constraints to protect water quality and listed fish species. See FEIR Subsection 5.2.1.2.

The altered water allocation measures and the permanent transfers of Table A amounts affect the allocation among the contractors of the water available to the SWP in any particular year rather than the total volume of water available to the SWP from the Delta. In supply-short years, the Table A retirements also affect the allocation among contractors but not the total volume available from the Delta, while in full-supply years the retirements may result in reduced pumping from the Delta. Article 18(a) specifies how the water available to the SWP in dry periods would be allocated to contractors and does not affect the amount of water that is pumped from the Delta by the SWP. These measures do not result in increased pumping or deliveries from the Delta. See FEIR Subsection 13.2.4.1 for further discussion on Article 18(a).

The only change resulting from the Monterey Amendment that has the potential to cause increased exports and adverse impacts on Delta fisheries is the implementation of the water supply management practices. The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

In those few years when water supply management practices may have an impact, the SWP will be operated in compliance with State and federal regulatory permits and other requirements, in effect at the time of the export pumping, that provide protection for the Delta aquatic environment, including for water quality, listed species and other aquatic resources. These requirements include constraints set by federal and State agencies under State and federal endangered species laws for operations of the SWP, which include operating pursuant to the Monterey Amendment, which are designed to minimize the effects of pumping on fisheries populations currently and in the future in order to prevent jeopardy and protect listed species and habitat. See pages 7.3-69 through 7.3-71 of the DEIR and FEIR Subsection 7.2.2.1.1.

The requirements described in the federal and State permits and opinions are in effect and on-going, although they are subject to change. Despite possible future changes in regulatory requirements, the Department believes that the regulatory agencies will continue their oversight and permitting responsibilities by conditioning SWP operations to appropriately protect the Delta aquatic environment. Therefore, in this case, the Department has determined that it is appropriate under CEQA to rely on this continual and on-going regulatory process to mitigate any potential current and future impacts to the Delta aquatic environment from the proposed project. The Department has also determined that its compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will comprise the mitigation measures that will minimize, avoid or reduce potential effects to a less than significant effect on the Delta aquatic environment from the proposed project now and in the future. The Department has determined that relying on the requirements of the existing regulatory process is not improper deferral of mitigation. Mitigation measures discussed are not indefinite and vague possibilities; they are being imposed on the SWP right now in ways that include mitigation of the Monterey Amendment Delta impacts. See FEIR Subsection 7.2.2.1.3.

#### 11.2.4.2.5 Effects of Reduced Pumping

Although reduced pumping is not an alternative, the DEIR analysis of the water supplies available for allocation in different hydrologic year types and the water available to contractors in dry years illustrates the implications of reduced SWP supplies. The allocation data for dry and critically dry years illustrate a variety of conditions in which deliveries of SWP water from the Delta are less than Table A amounts and that do not include delivery of Article 21 water. Reduced pumping due to hydrology replicates fairly well the situation that would exist if SWP supplies were reduced, such as could happen as a result of climate change, dry hydrologic periods including droughts, and Delta export reductions due to regulatory or other reasons. The analysis of the proposed project evaluates the allocation of water that is available each year

under a full range of hydrologic conditions, with the results illustrating the relative supplies that would be available to each contractor in any given water year type under 2003 regulatory conditions. The allocations are based on post-processing of the CALSIM II output that estimates available annual supplies. The reduced deliveries occur to various degrees, depending on year type, with the most severe reductions in the driest years. See Section 6.4 in the DEIR (starting on page 6-15). See also FEIR Subsection 6.2.2.2.

The DEIR analysis shows that in wet years, SWP contractor delivery requests may be lower due to augmented local supplies and reduced urban landscape irrigation demands, even when contractors initially request full Table A delivery. In those years, the SWP would be demand limited. In most years, requests for Table A exceed the available SWP supply. In those years the project would be supply limited. In those years when SWP contractor demands are higher than those assumed in the CALSIM II modeling, the SWP contractors would still request full Table A deliveries, the SWP would only deliver the amount of water that could be exported and allocated under the current regulatory constraints, and requests for Article 21 water would be higher when and if Article 21 water were offered. That effect would be reflected in the analysis of all but the wettest years, and is fully analyzed in the DEIR.

Variations in hydrology, climate change, regulatory constraints, or increased local demands in contractor service areas would not change the analysis of the effect of the proposed project on the environment although it is possible that impacts would be less if requests and deliveries were also less. As noted above, the EIR does not analyze reductions in SWP contractor demands, although it does evaluate various amounts of SWP supply. See also FEIR Subsection 6.3.2.4.

Thus since the publication of the DEIR, new regulatory restrictions have been imposed on SWP operations which significantly reduce exports from the Delta. These restrictions include the 2007 interim Wanger decision which was replaced by the USFWS Biological Opinion for delta smelt issued in December 2008. In February 2009, additional restrictions were included in the DFG Incidental Take Permit for longfin smelt and NMFS added more restrictions in its Biological Opinion for salmonids issued in June 2009. These new regulatory restrictions assess the operation of the SWP and include the Monterey Amendment as part of SWP operations. These restrictions are based upon what the regulatory agencies consider to be the current best available science and are, in their view, necessary to minimize the effects of pumping on fisheries populations currently and in the future in order to prevent jeopardy and protect listed fish species and habitat. The biological opinions and permits for these listed species include requirements that improve Delta aquatic habitat through export restrictions, changes in Delta flows, and land-based projects to restore fish habitat. In addition, requirements include improvements in handling of fish salvaged at the fish protection facilities and other measures to improve fish survival. Such requirements also improve the Delta ecosystem and provide benefits to other fish besides those listed under the state and federal endangered species acts. Although the DEIR presented information that effects of the proposed project on non-listed species are less than significant, the protections provided by the current and future regulatory requirements will provide benefits to the non-listed species. These decisions, SWRCB orders and Corps permits control the conditions under which the Department can export SWP water from the Delta, and do not restrict how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported. See FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3.

### 11.2.4.2.6 Most Increased Pumping Since 1996 Not a Result of the Monterey Amendment

The DEIR identified a cumulative total increase in deliveries resulting from the proposed project of about 44,000 AF during the nine-year period from 1996 to 2004 compared to the baseline scenario. However, the DEIR also shows that annual deliveries increased more than this amount during the period from 1996 through 2004 (compare DEIR Table 2-3 with DEIR Table 6-7) as a result of increased demand. Total average annual deliveries under 1995 conditions were estimated to be about 2.9 million AF (see DEIR, Appendix F). Total average annual baseline deliveries would increase to about 3.1 million AF in 2003 and to 3.32 million AF in 2020 (See DEIR Chapter 6, pages 6-32 and 6-38). Except for the cumulative total amount of 44,000 AF, these increased deliveries are not related to changes made as a result of the Monterey Amendment, but are the result of an increase in baseline demand due to factors such as population increases; decreases in other water sources, such as the Colorado River due to the QSA; and wetter years which provide greater opportunities for Delta export pumping. See discussion in FEIR Subsections 6.1.2.3.3, 6.3.2.1, 15.2.2, 15.2.3.1, and 15.2.3.3.

### 11.2.4.2.7 SWP is Usually Supply Limited

Other comments have argued that the change in Article 18(a) that requires that water shortages be shared equally among all contractors in proportion to their Table A amounts means that there will be more pressure on the Department to maintain high levels of exports to meet the unyielding demands of both. The Department does not agree.

The Department's determination of how much SWP supply is available for delivery to contractors is independent of the long-term water supply contracts. It is the only allocation of that available water supply among its contractors that is governed by the terms and conditions of the long-term water supply contracts. The Department can only allocate as much water as it determines is available. As discussed in FEIR Subsection 5.2.1.2, to the degree that hydrological and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. Increasingly the SWP is supply limited and the requests of all contractors cannot be met regardless of the existence of the Monterey Amendment. Before the Monterey Amendment, when conditions were supply-limited, agricultural contractors took more shortages first. Under the Monterey Amendment, when conditions are supply-limited, all contractors share equally in shortage allocations. The DEIR provides information on how much water would be delivered to individual contractors and to agricultural and M&I contractors under the proposed project in comparison to the baseline. See DEIR Subsections 6.4.2 and 6.4.3. The DEIR provides similar information for the different alternatives including operating the SWP under the pre-Monterey long-term water supply contracts (NP1). See DEIR Section 11.4. With the Monterey Amendment in place, total average annual deliveries in the past and future resulting from these changes would actually be decreased from the baseline. See DEIR pages 7.3-43 and 7.3-54.

The fact that Delta pumping is supply-limited more often means there will be fewer times when water could be exported in the future as a result of the water supply management practices – the only impact from the proposed project which could result in increased impacts on the Delta. That impact is reflected in the estimate of about 50,000 AF of average annual added Delta export pumping in the future attributable to the proposed project as a result of the water supply management practices, and would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and

environmental impacts are likely to be less than those set forth in the DEIR. See FEIR Subsection 15.2.2, on the effect of the water supply management practices on deliveries and 15.2.3 on water supply management practices and demand.

#### 11.2.4.2.8 Other Water Policy Actions

Although the DEIR concluded that the Monterey Amendment is not an appropriate tool for mandating the reduction in pumping changes suggested by the alternatives rejected in DEIR Subsection 11.1.2, it stated that there are other places where these concerns are or could be discussed and can be resolved in a more appropriate process. SWP impacts on water quality and endangered species are subject to SWRCB orders and to state and federal endangered species actions. See FEIR Subsections 7.2.2.1 and 7.2.2.3 for more discussion on recent and current actions with regard to Delta fisheries and mitigation for impacts from the Monterey Amendment. There are a number of efforts being made to provide for protection of Delta water quality, fisheries and environmental resources, including the BDCP and Delta Vision processes. See DEIR page 11-6. The Department is taking a leadership role and is actively involved in all these processes and engaged with the legislature, the Governor's office and other state and local government forums to deal with other issues relating to SWP operations and other actions which affect the Delta. See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection. Such measures are not alternatives to the Monterey Amendment and implementation of such measures would not be affected by the Monterey Amendment.

### 11.2.4.3 Assessment of Firm or Safe Yield and Elimination of Article 18(b)

A number of the comments expressed concern that if Article 18(b) of the long-term water supply contracts had not been eliminated as part of the Monterey Amendment, the SWP would have maintained a key safeguard that allows the Department to respond to permanent shortages. The comments asserted that this safeguard is a "critical safety valve" that allows SWP Table A amounts to be cut back in light of changing climate conditions, and/or regulatory constraints imposed to restore the Bay Delta ecosystem, by invoking Article18(b) and reducing the firm yield of the SWP. Invocation of Article 18(b) would occur if the Department declared that a permanent water shortage existed and would involve proportionately reducing Table A amounts until the total matched the estimated firm yield of the SWP. The court in *PCL v. DWR* suggested that invoking Article 18(b) would make local decision-makers more aware of the reliability limitations of SWP supply. As ordered by the court, the DEIR analyzed two variations of an alternative that involves invoking Article 18(b) (CNPA3 and CNPA4). The SWP, as originally planned in the early 1960's would have had a firm yield of about 4.1 million AF. The firm yield of the SWP in 2003 was estimated to be 1.9 million AFY. See FEIR Subsection 13.2.2.

The concept of firm yield and invocation of Article 18(b) is discussed in FEIR Subsection 13.2.2. Article 21 water is discussed in FEIR Chapter 14. Water reliability, including a discussion of the elimination of Articles 18(b) and 21(g)(1) is discussed in FEIR Chapter 9.2.5. The following discussion is a summary of information found in these chapters.

As noted in DEIR Section 2.5.1, the total of maximum Table A amounts was originally important to the SWP because this number was intended to be the firm yield of the SWP. As discussed in FEIR Subsection 13.2.2.3, because of the recognition that some anticipated facilities have not been built and that the reliability of SWP water supplies fluctuates for many reasons, including physical and regulatory causes, the Department now considers the probability of an amount of

water being delivered annually rather than firm yield when discussing reliability of SWP water supplies. As a result of this water delivery probability procedure, Table A amounts now serve primarily as a way of allocating supply shortages and surplus among the contractors and as a way of allocating costs of the SWP. Reducing the Table A amounts through invocation of Article 18(b) is not relevant in calculating total available SWP water supply, given current day operations and planning based on water delivery probability curves, and given the fact that all contractor shortages are allocated in proportion to Table A amounts under the provisions of Article 18(a) of the Monterey Amendment. See FEIR Subsection 13.2.2.3.

Like most other surface water supplies, SWP water supplies fluctuate, so in some years more water may be available and in other years less water may be available. The Department has determined that invocation of Article 18(b) and returning to the application of the concept of safe or firm yield in determining the amount of Table A that can be reliably allocated each year, except in extreme droughts, is not a reasonable way to protect the Delta or to make local government aware of the variability and limitations of SWP water supply. Such an action would not alter Delta exports, would not alter water supply reliability, nor would it alter the total amount of SWP water allocated to contractors. The action would decrease Table A allocations and commensurately increase Article 21 allocations, both as scheduled surplus and as unscheduled (interruptible) supplies. See FEIR Subsection 13.2.2.3.

As discussed in FEIR Chapter 7, Subsection 7.2.2.1.3, the Department considers current regulatory processes and evolving Delta constraints to be the appropriate means of protecting the Delta and other environmental resources. As discussed in FEIR Chapter 9, Subsections 9.2.4 and 9.2.6, the Department considers processes such as the Reliability Report (which addresses the impact of climate change and Delta pumping restrictions) and other means of urban water management planning to be a more effective means of making local government aware of the variability and limitations of the SWP water supply. See FEIR Subsection 13.2.2.3.

## 11.3 RESPONSES TO INDIVIDUAL COMMENTS

### Response to Comment 6-1

The comment states that the DEIR should consider the legal feasibility of the various components of the proposed project. See FEIR Subsections 11.2.1 and 11.2.3. See also Response to Comment 6-1 in FEIR Chapters 4 and 5.

### Response to Comment 6-9

The comment states that the “range” of alternatives in the DEIR is not objectively reasonable and that the project’s objectives are either far too narrowly defined or are being far too narrowly interpreted. In this case, the comment suggests that a particular course of action in locked in place and the DEIR uses the proposed project as a basis for screening the alternatives. As stated in the DEIR on page 1-1, the Department will evaluate the proposed project’s environmental impacts measured against the baseline, contrast those with the impacts under the alternative scenarios and consider, where appropriate, mitigation measures. As part of its overall consideration, the Department will also review legal, economic and social impacts. Once the EIR is complete, the Department will consider all options available to it under the law, including the options of continuing to operate or not continuing to operate under the Monterey Amendment and the Settlement Agreement. See FEIR Subsection 4.2.1.2.

With regard to the issues the comment raises regarding alternatives, see FEIR Subsections 11.2.1 and 11.2.2 on compliance with CEQA and *PCL v. DWR* and 11.2.3 on the range of

alternatives and alternatives rejected. See also FEIR Subsection 7.2.1.1.3 on impacts on the Delta and mitigation which reduces the potential impact to less than significant.

## Response to Comment 6-10

This comment suggests that the DEIR assumed that a particular course of action is locked in place. It also suggests that the EIR should look at a reduced export alternative. See FEIR Subsections 11.2.1 and 11.2.2 on compliance with CEQA and *PCL v. DWR*, Subsection 11.2.3 on the range of alternatives and alternatives rejected, and 11.2.4 on why reducing demand or exports is not a feasible alternative. See also FEIR Subsection 7.2.1.1.3 on impacts on the Delta and mitigation which reduces the potential impact to less than significant.

See also Response to Comment 6-10 in FEIR Chapter 5.

## Response to Comment 6-19

This comment notes that in DEIR Section 10.2, Significant and Unavoidable Impacts, there is a list of the significant and unavoidable impacts of the proposed project but not an explanation of why the impacts cannot be avoided through mitigation measures or alternatives.

Each resource section in DEIR Chapter 7 discusses each potentially significant impact of the proposed project and for each such impact identifies potential mitigation measures which could avoid or substantially lessen such impacts. If there is no mitigation measure identified that could avoid or substantially lessen a potentially significant impact, the impact is identified as significant and unavoidable. As explained on page 10.2-1, Section 10.2 provides a summary of the identified significant and unavoidable impacts which are discussed in full in the technical sections of Chapter 7 of the DEIR. Several alternatives analyzed in the DEIR in Chapter 11 (NPA1, CNPA3, CNPA4 and Alternative 5) do avoid identified significant and unavoidable impacts of the proposed project. See also FEIR Subsections 11.2.1 and 11.2.3.1.

## Response to Comment 11-4

The comment suggests that the KFE property under the No Project Alternative 1, Court Ordered No Project Alternative 3, and Court Ordered No Project Alternative 4 may have had other uses and that there is no reason to believe that a State-owned water bank on the KFE property would have occurred. The KFE property was transferred over 10 years ago. Four versions of the no project alternative and one alternative are examined in the DEIR because there is disagreement and uncertainty over how to characterize what would occur in the absence of the Monterey Amendment. The alternatives are described on pages 11-1 and 11-2 of the DEIR and include three versions that involve a State-owned water bank and two versions that involve a locally-owned water bank. Altogether all the alternatives discussed in the DEIR present a reasonable range of alternatives for agency and public consideration. See FEIR Subsection 11.2.3.1.2.

See also Response to Comment 11-4 in FEIR Chapter 16.

## Response to Comment 11-6

The comment states that the FEIR should recognize the potential for commercial development of the 490 acres of KWB lands as permitted by the HCP/NCCP. The comment correctly notes that under NPA2, the KFE property would be transferred to KCWA but the Settlement Agreement would not be implemented. The Settlement Agreement includes a provision that prohibits development of 490 acres of land that would otherwise be commercially developable.

Thus, a potential impact of Alternative NPA2 would be development of the 490 acres of land for commercial purposes. Therefore, the last paragraph on page 11-32 is revised to read as follows:

> NPA2 would have the same effects as the proposed project for 1996 through 2003. In the future, NPA2 would have lesser effects than the proposed project on Delta fisheries ~~and in the San Joaquin Valley Portion of Kern County~~. It would also have less environmental effects than the proposed project in the San Joaquin Valley portion of Kern County with the exception the 490 acres of land in the KFE. Under the proposed project this land could not be developed but it could be developed under NPA2. It would have no effects in the future on environmental resources at Castaic Lake and Lake Perris and in Plumas County. Alternative 5 would avoid all of the adverse environmental impacts of the proposed project except those in Plumas County.

See also Response to Comment 11-6 in FEIR Chapter 16.

## Response to Comment 11-7

This comment states that the DEIR recognizes that there is doubt about the institutional feasibility of Alternative 5. It also questions the legal feasibility of Alternative 5 saying that the DEIR does not explain how Alternative 5 would or could legally be implemented in light of the existing contracts. The Department agrees that there would be potential legal, as well as institutional problems in implementing Alternative 5. Accordingly the third sentence of Alternative 5 on page 11-3 is revised to read as follows.

> Although there is doubt about the institutional and legal feasibility of Alternative 5, it was decided that it should be analyzed because it would lessen the adverse environmental impacts of the Monterey Amendment.

See also FEIR Subsections 11.2.1 and 11.2.3.1.

## Response to Comment 15-3

The comment notes that a 1994 EIR contemplated MWDSC's participation as a banking partner in the Semitropic Water Bank with a potential storage of up to 1 million AF and that, prior to the Monterey Amendment, MWDSC contracted with Semitropic to use 1 million AF of storage capacity under certain circumstances. Because of this history, the commenter argues that storage of up to 1 million AF of water in the Semitropic Water Bank should be included in the no project alternatives if it is not included in the baseline.

MWDSC's storage of SWP water in the Semitropic Water Bank outside its service area was subject to Department approval. As stated in FEIR Subsection 6.1.2.3.2, the DEIR included 350,000 AF in the baseline because the Department had approved that amount prior to the Monterey Amendment. The DEIR included the remainder as part of the proposed project. The Department agrees that storage of the remaining amount could have been included in NPA2 because the full 1 million AF were approved prior to 2003. If it had been included, deliveries to MWDSC would be slightly increased. Whether the 650,000 AF is included in NPA2 or not does not affect the environmental analysis. The historical analysis of the effects of the water supply management practices for the alternatives would not be changed by including the 650,000 AF. The future impacts were not modeled but rather were based on a qualitative analysis, the results of which are in DEIR Table 11-23. Nothing in the table or the associated text would change if the 650,000 AF was included in NPA2. While it could have been included as part of

the other no project alternatives, leaving it out allows a comparison with the effects of having it included as part of the proposed project. The Department believes that the number and form of no project alternatives present a reasonable range of no project alternatives. See FEIR Subsection11.2.3.1.2. See also Response to Comment 15-3 in Section 6.1.

## Response to Comment 16-15

This comment states that NPA1, CNPA3 and CNPA4 are theoretical scenarios of what might have been expected to occur since 1995 in the absence of the Monterey Amendment and that they therefore are impossible to implement. The comment requests that the EIR should explain that these alternatives are presented for informational purposes only and do not represent possible "no project" futures. See FEIR Subsections 11.2.1 and 11.2.3.1.2.

The comment also says that it is unclear whether Alternative 5 is meant to eliminate the water supply management practices from future implementation or, similar to NPA1 and CNPA3 and CNPA 4, it is a theoretical, historical perspective on impacts if the Monterey Amendment water supply management practices had not been implemented in 1996. The description of Alternative 5 on pages 11-3 and 11-30 in the DEIR states that the water supply management practices that are a part of the Monterey Amendment would not be implemented as part of this alternative and the DEIR concluded that there would not be any environmental impacts resulting from the water supply management practices for Alternative 5. Therefore, as described in the DEIR, Alternative 5 is similar to NPA1, CNPA3, and CNPA4 in that it shows a theoretical, historical perspective on what might have happened if Alternative 5 had been implemented in 1996. The comment states that to qualify as an actual project alternative, Alternative 5 cannot be presented in an historical perspective. It proposes that in an actual project alternative, impacts occurring from 1996 to 2003 would be identical to the proposed project and that future impacts to Delta fisheries could still occur due to the water supply management practices, such as deliveries to existing out-of-service-area storage programs, although impacts would be less than for the proposed project.

If presented as suggested by the comment, the impacts of Alternative 5 would be the same as the proposed project except that the Monterey water supply management practices would not be implemented after 2003. As a result, the impacts of Alternative 5 would be the same as the proposed project for 1996-2003. For the future they would be similar to but less than proposed project. While it could have been included as a real alternative as suggested by the comment, leaving it as is allows a comparison with the effects of having it included as part of NPA2. The Department believes that the number and form of no project alternatives present a reasonable range of no project alternatives. See FEIR Subsection 11.2.3.1.2.

## Response to Comment 16-45

The comment suggests changing the fourth paragraph on page 5-1 of the DEIR to include reference to reverting to the possible no project alternative. The Department agrees with the suggested change; therefore, the fourth paragraph on page 5-1 of the DEIR is revised to read as follows:

> In the case of the Monterey Amendment, a decision to continue the current implementation of the Monterey Amendment, continue the current implementation with mitigation measures, or revert to ~~one of the~~ a possible no project alternative~~s~~ requires consideration of the impacts of the proposed project as compared to the appropriate baseline.

## Response to Comment 17-8

The comment says that the DEIR does not adequately analyze alternatives, stating that in light of the provisions of Articles 18 and 21, the EIR must include some sort of decreased exports alternative, similar to that required by the court in the CalFed ROD cases. See FEIR Subsections 11.2.2, 11.2.3.1, 11.2.4.2, and 11.2.4.3. See also FEIR Chapter 13 on Article 18, Chapter 14 on Article 21 and Subsection 9.2.5 on eliminating Article 18(b) and 21(g)(1). See also Response to Comment 17-8 in FEIR Chapter 13.

## Response to Comment 19-2

The comment says that the DEIR fails to state that a goal of the proposed project is to increase export water through the Delta. See FEIR Subsection 11.2.4.2 and Response to Comment 19-2 in Chapter 13.

## Response to Comment 21-47

The comment states that the DEIR misstates CEQA with regard to how an EIR must treat alternatives when the EIR concludes that there are no potential significant adverse impacts or that, if there are, they can all be avoided or substantially lessened.

There may be a question as to what the law requires with regard to alternatives in the situation discussed above. However, the DEIR did find that there were potential significant adverse environmental impacts that could not be mitigated and it included an alternative that would avoid or substantially lessen these impacts and discussed a number of other alternatives considered and rejected because they did not meet the project objectives or were not feasible. See FEIR Subsections 11.2.1 and 11.2.3.

## Response to Comment 21-48

The comment states that the DEIR unjustifiably eliminates from analysis a number of alternatives on the ground that they do not meet most of the objectives of the proposed project. See FEIR Subsections 11.2.1, 11.2.3.2, and 11.2.4.

## Response to Comment 21-49

The comment says that the analysis appears to assume that an objective of the project is to maintain or increase exports from the Delta and states that if maintaining or reducing exports is an objective of the project, it should be stated and if it not, then the Department has no basis for refusing to analyze a reduced export alternative. See FEIR Subsections 11.2.1 and 11.2.4.2.

## Response to Comment 21-50

This comment objects to the rejection of alternatives on the basis that their implementation would have required changes to the Department's role vis-à-vis local water agencies and land use planner and/or would require actions outside the current scope of the Department's authority. Alternatives were not rejected on this basis. See FEIR Subsections 11.2.3.2 and 11.2.4.1. Reduced pumping as an alternative is discussed in FEIR Subsections 11.2.4.2 and 11.2.4.3.

The comment footnote 27 cites three cases for the authority that analysis of these alternatives is required. The finding in one of the cases, *In re Bay-Delta, 3d District,* that the feasibility of a

reduced exports alternative is clear was rejected by the California Supreme Court and is discussed in the subsections listed above. The approach used in this EIR is consistent with the recent holding of the Supreme Court in *In re Bay-Delta* and the holdings of the other cases cited, *Friends of the Eel River* and *Methow Valley Citizens Council.*

## Response to Comment 21-51

This comment states that the DEIR does not contain sufficient information to make a meaningful comparison of alternatives. The comment does not identify any specific lack of information. Please refer to DEIR Chapter 11 pages 11-7 through 11-33 for the evaluation of alternatives and Table 11-23 on page 11-33 which provides a comparison of the impacts of the alternatives analyzed in detail. See also FEIR Subsections 11.2.1 and 11.2.3.

## Response to Comment 21-56

The comment states that alternatives that provide for greater water use efficiency, conservation, reuse, recycling, and reduced exports from the Delta has the potential to lessen the GHG impacts of the project. See FEIR Subsection 11.2.4.1.

For a discussion of the effect of climate change on water supply and the effect of the Monterey Amendment on the potential for increased GHG's at the local level, see DEIR Chapter 12 and FEIR Chapter 12.

## Response to Comment 22-20

This comment requests that an alternative be analyzed requiring the contract year for SWP deliveries to be coincident with the water year. Analysis of such an alternative is not needed for CEQA compliance. It is not clear why the comment raises the distinction between calendar and water year. It does not make a difference in how the environmental analysis is carried out or the results of the analysis. The concern seems to be that there is some kind of "gaming" that allows the contractors to get more Table A deliveries than they would in the absence of these provisions. The comment is correct that these practices may increase the amount of water delivered to contractors and that water may be either Table A or Article 21 water. That is the purpose of the water supply management practices. Both carryover and the Turnback Pool are designed to improve the efficiency of the SWP supplies and increase the flexibility of the contractors in sharing the supplies, storage capabilities, and delivery capabilities of the SWP. The comment is correct that these practices may lead to increased pumping during the months of November through March. See FEIR Subsection 15.2.2, which discusses the effects of these practices on deliveries and pumping from the Delta. See also this FEIR Section 7.2 which discussed the impact the proposed project on fisheries in the Delta and the regulatory processes in place to limit pumping to protect fisheries in the Delta. An alternative that required the contract year for be coincident with the water year would be the same or similar to the proposed project and its environmental effects would be the same as the proposed project

The suggested alternative falls within the range analyzed in the DEIR. See also FEIR Subsection 11.2.3.1. See also Responses to Comments 22-18 and 22-19 in FEIR Chapter 15.

## Response to Comment 26-6

The comment states that the DEIR's alternatives do not satisfy CEQA's requirement that "all reasonable alternatives to the proposed project [be] thoroughly assessed by the responsible official" and states that no alternatives are discussed that address the original problem – the

contractors dissatisfaction with certain contract provisions - outside of the constraints of the Monterey Agreement. See FEIR Subsection 11.2.3.1, especially 11.2.3.1.4. The approach used in this EIR is consistent with the recent holding of the Supreme Court in *In re Bay-Delta* and the holdings of the other cases cited, *Save Round Valley Alliance* and *San Joaquin Raptor/Wildlife Rescue Center.*

## Response to Comment 30-7

This comments states the opinion that the DEIR violates CEQA because it rejects feasible alternatives and mitigation measures that would meaningfully address project objectives without requiring damaging and unlawful levels of new pumping. The Department does not agree that the proposed project requires damaging and unlawful levels of new pumping. The SWP is operated within whatever legal constraints exist at the time. The proposed project primarily provides for how and where water that is available within these constraints will be allocated.

See also FEIR Subsections 11.2.1, 11.2.3.2, and 11.2.4.

## Response to Comment 30-16

The comment notes that the previous EIR was found inadequate under CEQA for failing to analyze Article 18(b) as part of the No Project Alternative and that an adequate EIR would analyze the impacts of eliminating these provisions. The comment states that the (*PCL v. DWR*) court held that an adequate EIR must analyze the impacts of a no project alternative of implementing Article 18(b). See FEIR Subsections 11.2.1, 11.2.2, and 11.2.3.1.2 on no project alternatives, and 11.2.4 on why alternatives that would reduce demand and reduce exports are not feasible alternatives. See also Response to Comment 30-16 in FEIR Chapters 9 and 13.

## Response to Comment 30-21

This comment and Comment 30-20 suggest that the DEIR alternatives analysis obscures impacts by presenting no project alternatives that include components of the proposed project which limits options for the decision-makers by failing to provide alternatives distinguishable from the proposed project. The comments argue that; therefore, the DEIR prevents the Department from fulfilling its role as lead agency. A similar point is made in Comments 30-46, 30-48, 30-138, and 30-147.

The Department respectfully disagrees. The proposed project is evaluated in Chapters 7 though 10 in the DEIR. Alternatives, including several versions of the no project alternative, are examined in Chapter 11. Because the proposed project is a revision of an ongoing operation (operation of the SWP in accordance with long-term water supply contracts), the no project alternative was defined as described in CEQA Guidelines 15126.6(e) (3) (A). That is, the no project alternative was defined as the continued operation of the SWP in accordance with the un-amended long-term water supply contracts (pre-Monterey Amendment). See FEIR Subsections 6.1.2.1 and 6.1.2.2 for more discussion on the baseline in comparison to the no project alternatives.

The SWP has been operated for over 12 years since 1996 pursuant to long-term water supply contracts that include the Monterey Amendment. Four versions of the no project alternative are examined in the DEIR because there is disagreement and uncertainty over how to characterize continued operation of the SWP in accordance with the pre-Monterey long-term water supply contracts. They are described on pages 11-1 and 11-2 of the DEIR and include two versions that involve invocation of Article 18(b) as required by the court in *PCL v. DWR*.

Three of the DEIR no project alternatives show different possibilities of what might have happened if the Monterey Amendment had not been implemented in 1995. NPA1, CNPA3, and CNPA4 all assume that none of the elements of the proposed project would ever have been implemented and examine the impacts of each alternative under those assumptions from 1996 through 2020. NPA2 takes a different approach and analyzes the results of a no project alternative starting from the present. It therefore assumes that actions completed under the Monterey Amendment from 1996 through 2003 (the date of the Notice of Preparation) would stay in place. Therefore in the 2003 to 2020 analysis, it leaves in place the transfer of the KFE property as well as contractual transfers of Table A amounts and storage programs outside the contractor's service area that were in place before 2003. It assumes that all other parts of Monterey would be rescinded. Alternative 5 is clearly distinguishable from the proposed project and the no project alternatives. It includes all of the Monterey Amendment components except the water supply management practices which have potentially significant adverse environmental impacts. This structure distinguishes it from the proposed project which includes all the components, NPA1, CNPA3, and CNPA 4 which do not include any proposed project components and NPA2 which leaves in place all components implemented prior to 2003. The Department believes that the DEIR identifies a range of reasonable alternatives. See FEIR Subsections 11.2.1, 11.2.2, and 11.2.3.1, especially 11.2.3.1.2 and 11.2.3.1.4.

Some of the comments on this issue also state that the Department is including components of the proposed project based on an argument that they would have been implemented under the pre-Monterey long-term contracts. As described above and in the relevant subsections, the department's decision to include these components is not based on the argument suggested by the comment. See also FEIR Subsection 6.1.2.3.2 for discussion of whether project components are included in the baseline.

## Response to Comment 30-22

The comment that the DEIR fails to analyze the No Project Alternative as directed in *PCL v. DWR* and the Settlement Agreement. The comment states that *PCL v. DWR* and the Settlement Agreement require the EIR to include an analysis of the impacts of a no project alternative implementing Article 18(b) and the impacts of eliminating Article 18(b) and Article 21(g)(1). The Department believes that this EIR complies with CEQA, *PCL v. DWR,* the Settlement Agreement and the Superior Court Order on remand. See FEIR Subsections 4.2.1.2, 4.2.1.3 and 4.2.2.2.

See FEIR Subsections 11.2.1, 11.2.2 and 11.2.3.1.2 on no project alternatives and 11.2.4 on why alternatives that would reduced demand and reduced exports are not feasible alternatives. See also FEIR Subsection 13.2.2 on invocation of Article 18(b), Subsection 14.2.4 and 14.2.5 on Article 21 and Subsection 9.2.5 on elimination of Article 18(b) and Article 21(g)(1).

See also Response to Comments 30-22 in DEIR Chapters 9 and 13.

## Response to Comment 30-24

This comment states that the analysis incorrectly assumes that demand for SWP water with the proposed project and with non-Monterey alternatives would be the same. It is true that the analysis assumes that demand would be about the same with the proposed project and its alternatives but the Department disagrees that it is an incorrect assumption. The demand for water in the SWP contractors' service areas results from the existing installed base of urban and agricultural development. The urban base is expected to grow in the future as urban areas expand. There is no evidence to believe that reclassifying some of the water as Article 21

rather than Table A water, under CNPA3 and CNPA4 (the alternatives where Article 18(b) would be invoked), would have any effect on demand for SWP supplies. See FEIR Subsection 15.2.1 and 15.2.3 for more discussion on whether the Monterey Amendment increased demand.

Under alternatives CNPA3 and CNPA4 the SWP would continue to be operated in accordance with the pre-Monterey Amendment long-term water supply contracts. The contracts limit the amount of SWP water a contractor may obtain to its Table A amount plus a share of any available surplus water. The comment argues that the elimination of Article 21(g)(1) in the proposed project would affect water demand. Now that most contractors request their full Table A amounts annually, the conditions that Article 21(g)(1) was intended to prevent are unlikely, and so its elimination would not be expected to have an effect on water demand or SWP deliveries. See Response to Comment 30-24 in FEIR Chapter 9.

## Response to Comment 30-44

This comment notes that it suggested two alternatives that address Kern Fan issues. The first was the Kern Fan Retention Alternative which would retain state ownership of the KFE Lands. Several alternatives that would retain the KFE Lands in state-ownership were included in the analysis in the DEIR (NPA1, CNPA3, and CNPA4). A state-owned water bank would be built in the KFE Lands and used to improve dry year reliability of the SWP as suggested by the commenter.

The second alternative suggested in the comment was the Kern Fan Transfer with Trust Conditions Alternative. This alternative was considered by the Department, as described in Chapter 11 of the DEIR on page 11-6, but rejected. The comment considers the reasons for rejection as inadequate.

See also FEIR Subsection 11.2.1 for a discussion of the criteria that were used to select the alternatives evaluated in the DEIR and FEIR Subsection 11.2.3.2 for further discussion of alternatives considered but rejected from further evaluation. The alternative was rejected because it did not meet any of the objectives of the proposed project. See also FEIR Subsections 16.2.1, 16.2.2, and 16.2.4 for a discussion of the history of the transfer and the legislative requirement for agreement by the local agency for use of the KFE property and 16.2.5 for a discussion of the adequacy of the CEQA analysis regarding the transfer. See also Response to Comment 30-44 in FEIR Chapter 16.

## Response to Comment 30-46

The comment states that the DEIR presents “muddled” versions of the no project alternative. The Department disagrees. See the Response to Comment 30-21. See also FEIR Subsections 11.2.1, 11.2.2, and 11.2.3.1, especially 11.2.3.1.2 and 11.2.3.1.4.

See Response to Comment 11-4 for a discussion of why the Department included development of a state-owned water bank in the KFE in NPA1, CNPA3 and CNPA4 and Response to Comment 30-44 for further discussion of why the Kern Fan Transfer with trust Conditions Alternative was considered but rejected from further evaluation. The use of capacities of 350,000 AF by 2003 and 500,000 AF by 2020 are not arbitrary. They were analyzed and discussed in the Department reports at the time. See the discussion in DEIR Appendix E. See also FEIR Subsections 16.2.1 and 16.2.3 for a discussion of the history of the KFE Lands and the difficulties the Department was facing with regard to them.

The comment also states that the CNPA3 and CNPA4 on Article 18(b) no project alternatives contain significant flaws and do not provide the rigorous review anticipated by the court in *PCL v. DWR* and by the plaintiffs in the Settlement Agreement. See FEIR Subsection 11.2.2. The comment also questions the water allocation method used in CNPA3. Because of questions about how Article 21 would have been applied if Article 18(b) had been implemented, the DEIR shows two different applications. CNPA4 uses the agriculture first allocation of Article 21. CNPA3 uses a pro rata share of Article 21 for all the contractors. See FEIR Subsection 13.2.2 for the discussion on why both methods were used.

## Response to Comment 30-47

This comment states that the reasoning used in the DEIR to reject alternatives from detailed consideration suggests that the Department views the objectives so tautologically that seemingly only the Monterey Amendments or a negligible variation of the amendments could feasibly accomplish them. The Department believes that the DEIR identifies a range of reasonable alternatives. See FEIR Subsections 11.2.1 and 11.2.3.1. The comment states that the DEIR summarily eliminated nine alternatives suggested by PCL and the other plaintiffs. This statement is incorrect. Four of the suggestions were included in alternatives examined in the DEIR; five were rejected because they did not meet the screening criteria. Please see FEIR Subsection 11.2.3.2 for further discussion of alternatives considered but rejected from evaluation. See Subsections 11.2.4.1 and 11.2.4.2 on increased water conservation and reduced pumping. The comment states an opinion that the threat of litigation under an alternative should not prevent it from being environmentally reviewed. No alternatives were eliminated because of threat of litigation.

See also Response to Comment 30-47 in FEIR Chapter 5 on objectives and 5.2.3.2 on the relationship to other water policy actions.

## Response to Comment 30-48

The comment states that the EIR alternatives should include alternatives that are clearly distinguishable from the proposed project and the no project alternative and that these alternatives should not include policies or actions that are being proposed as part of the proposed project. The Department believes that the alternatives in the DEIR are clearly distinguishable from each other and represent a reasonable range of alternatives. See the Response to Comment 30-21. See also FEIR Subsections 11.2.1, 11.2.2, and 11.2.3.1, especially 11.2.3.1.2 and 11.2.3.1.4.

## Response to Comment 30-64

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-64 is a comment on an interim document provided to the EIR Committee by plaintiff representatives in September 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments the proposed approach to analyzing growth-inducing impacts, including the No Project Alternative with Article

18(b) invoked. The comment states that the EIR should reflect the *PCL v. DWR* court's opinion on the need to include an Article 18(b) alternative and suggests that the EIR should not include a no project alternative that includes something other than Article18(b).

Four versions of the no project alternative are examined in the DEIR because there is disagreement and uncertainty over how to characterize continued operation of the SWP in accordance with the pre-Monterey long-term water supply contracts. They are described on pages 11-1 and 11-2 of the DEIR and include two versions that involve invocation of Article 18(b) as required by the court in *PCL v. DWR*. The Department believes that it has complied with CEQA and with *PCL v. DWR.* See FEIR Subsections 11.2.1, 11.2.2, and 11.2.3.1.

## Response to Comment 30-66

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-66 is a comment on an interim document provided to the EIR Committee by plaintiff representatives in September 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on early discussion papers prepared during the development of the EIR analysis. The comments disagree with the Department's characterization of the decision of the *PCL v. DWR* court regarding the Article 18(b) no project alternative and states that statements attributed in one of the papers to the plaintiffs were made by the *PCL v. DWR* court.

These papers are not part of the DEIR. The DEIR refers both to positions of the plaintiffs and to the language of the *PCL v. DWR* court depending on the context of the discussion in the DEIR. See FEIR Subsections 11.2.1, 11.2.2, and 11.2.3.1 on the Article 18(b) no project alternative and the reasonable range of alternatives. See also Response to Comment 30-64 on studying various no project alternatives.

## Response to Comment 30-72

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-72 is a comment on an interim document provided to the EIR Committee by plaintiff representatives in November 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a discussion at a Monterey Plus EIR Committee meeting of the proposed approach to analyzing the proposed project scenarios, including the no project scenarios. Issues raised by the comments and the relevant sections of the DEIR and FEIR that address these issues are listed below:

- The EIR must make it clear that the 41,000 AF Kern-Castaic Transfer is not final. See FEIR Subsection 5.2.14.

- Can or should the Department reduce charges during hardships without informing Bond Underwriters and holders and how to handle potential financial difficulties faced by KCWA. These issues are not discussed in the DEIR or EIR.
- Would pre-Monterey Table A transfers from agricultural to M&I contractors would be subject to the agricultural shortages. See FEIR Subsection 13.2.4.2.
- How would a state operated KWB be operated and how would it benefit the SWP contractors. See FEIR Subsection 16.2.6. What is the full extent of possible development that might have been obtained with KWB; did an earlier analysis consider one-million AF of storage capacity. See also Response to Comment 11-4.
- Was there an early analysis that identified a KWB with one-million AF of storage capability. See FEIR Subsection 16.2.2.1.
- What should the minimum project yield be under the no project Article 18(b) alternative? See FEIR Subsection 13.2.2.
- How would Table A and surplus water be allocated under the various alternatives and would groundwater storage south of the Delta be developed. See DEIR Chapter 6 and Chapter 11. See also FEIR Chapter 13 and 14.
- The relationship between developing supply and demand. See DEIR and FEIR Chapters 9 on the reliability of water supplies and growth.

See also FEIR Subsections 11.2.1, 11.2.2, and 11.2.3.1. See Response to Comment 11-4 on KWB development by the State.

## Response to comment 30-138

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-138 is a comment on an interim document provided to the EIR Committee by plaintiff representatives in November 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a discussion at a Monterey Plus EIR Committee meeting of the proposed approach to analyzing the proposed project scenarios, including the no project scenarios. The comment questions the use of alternatives that include components of the proposed project.

The Department believes that the alternatives in the DEIR are clearly distinguishable from each other and represent a reasonable range of alternatives. See Response to Comment 30-21. See FEIR Subsections 11.2.1, 11.2.2, and 11.2.3.1, especially 11.2.3.1.2 and 11.2.3.1.4.

## Response to Comment 30-147

Comment 30-147 is from comments provided to the Department on December 18, 2206 on an Administrative Draft EIR presented to members of the EIR Committee advising DWR on this EIR. The comment asserts that the alternatives analysis is inadequate and that to provide a reasonable comparison, alternatives must be distinguishable from the proposed project. The

comment questions the use of alternatives that include components of the proposed project. The Department believes that the alternatives in the DEIR are clearly distinguishable from each other and represent a reasonable range of alternatives. See Response to Comment 30-21. See FEIR Subsections 11.2.1, 11.2.2, and 11.2.3.1, especially 11.2.3.1.2 and 11.2.3.1.4.

## Response to Comment 30-151

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-151 is a comment on an interim document provided to the EIR Committee by plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an Administrative Draft EIR presented to the members of the contractors and plaintiff committee advising the Department on this EIR.

The comment is part of a letter which recommended a number of alternatives for inclusion in the EIR alternatives analysis. These suggested alternatives were discussed in the DEIR and were either included as part of the no project alternatives or considered and rejected. The response discusses three of the alternatives suggested by the letter. The other alternatives are discussed in Response to Comment 30-152. The "Article 18(b) No Project Alternative" is CNPA 3 and CNPA 4. The "Monterey Today and Current Operations Alternative" is NP2. The "Full Build Out to 2020 Alternative" is discussed as an alternative considered, but rejected. See DEIR Chapter 11 and FEIR Subsection 11.2.3.2. See also Response to Comment 30-151 in FEIR Chapter 13.

## Response to Comment 30-152

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-152 is a comment on an interim document provided to the EIR Committee by plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an Administrative Draft EIR presented to the members of the contractors and plaintiff committee advising the Department on this EIR. The comment is part of a letter which recommended a number of alternatives for inclusion in the EIR alternatives analysis.

These suggested alternatives were discussed in the DEIR and were either included as part of the no project alternatives or considered and rejected. The Urban Preference and Dry Year Reliability Alternatives, Coordinated CVP-SWP Systems Alternative, the Kern Fan Transfer with Trust Conditions Alternative and the Improved Reliability through Environmental Enhancement Alternative were discussed as alternatives considered, but rejected. The Kern Fan Retention Alternative and the No Kern/Castaic Transfer Alternative are included in NPA1, CNPA3 and

CNPA4. See Response to Comment 30-151 for a discussion of three of the alternatives suggested by the letter. See also DEIR Chapter 11 and FEIR Subsection 11.2.3.2.

### Response to Comment 31-4

The comment does not agree with the DEIR's conclusions regarding invocation of Article 18(b) and delivery of Article 21 water in addition to reduced Table A deliveries and calls the analysis a "game of accounting slight-of-hand." The comment calls for an alternative that would reduce water exports and encourage conservation, reuse and the development of alternative water supplies as recommended by the Delta Vision Task Force. See FEIR Subsections 11.2.3.1.1 and 11.2.4. See also Response to Comment 31-4 in FEIR Chapter 9 and 13.

### Response to Comment 31-6

The comment states that the goal of the proposed project should be to find a solution to California's water needs that will protect the environment and be resilient in the face of climate change. As discussed in the FEIR 5.2.1.2, the changes to the contract arose primarily out of concerns among the urban and agricultural contractors and the Department about how to allocate SWP water in times of shortage including using the KWB as a water storage project. As discussed in FEIR Subsection 5.2.3.1, there are other forums designed to find a solution to California's water needs that will protect the environment and be resilient in the face of climate change. See FEIR Subsections 11.2.3.1, 11.2.4.1, and 11.2.4.2.

### Response to Comment 35-8

The comment says that the Department should develop an alternative that re-instates Article 18(b) and a no project alternative that addresses whether there is a need for this project after all available water efficiency measures are instituted. See FEIR Subsections 11.2.1, 11.2.3, and 11.2.4.1.

### Response to Comment 36-5

The comment states that increased water supply and pumping is a clear goal of the Monterey Amendment and the impacts should be stated. See FEIR Subsections 11.2.1 and 11.2.4, especially, Subsection 11.2.4.2.

### Response to Comment 36-14

The comment states that the DEIR fails to respond to the requirements of the Wanger decision in the alternatives analysis or recognize this decision in DEIR Subsection 6.3. See FEIR Subsection 11.2.4.2. See also Response to Comment 36-14 in FEIR Section 7.2.

### Response to Comment 36-18

The comment states that the DEIR should develop an alternative that would ensure consistency with recommendation 7 of the Delta Vision Task Force that stated that "A revitalized Delta ecosystem will require reduced diversions, or changes in patterns and timing of diversions, upstream, within the Delta, and exported from the Delta at critical times. See FEIR Subsection 11.2.4.1. See also Response to Comment 36-18 in Chapter 5.

## Response to Comment 36-19

This comment notes that the alternatives analysis in the DEIR does not take account of the Wanger Decision and that a new alternative should be analyzed which incorporates the pumping regime the Department has developed to comply with the decision. It also states that the EIR should analyze a no project alternative that addresses the amount of water and energy saved by substituting water efficiency, conservation, water recycling and additional local recharge projects for the proposed project. See FEIR Subsections 11.2.4.1 and 11.2.4 2. See also Response to Comment 36-14 and FEIR Subsection 11.2.4.2.

## Response to Comment 64-15

The comment suggests that the alternatives in the DEIR are insufficient to carry out what the judge told the Department to do. The comment discusses the pelagic fishery decline and asks that the EIR include a discussion of what role the Monterey contract amendments pay in the destruction of the pelagic fishery in the Delta and look at alternatives that would include the Wanger decision and actions to improve the Delta fisheries. See FEIR Subsections 11.2.1, 11.2.2, 11.2.3.1, and 11.2.3.2. See also FEIR Subsections 5.2.1.1 and 5.2.1.2, and Subsections 7.2.2.1.1 and 7.2.2.1.3.

## Response to Comment 64-17

This comment suggested that the original long-term water supply contracts be retained as an alternative to the proposed project or that they be retained but with Article 18(b) invoked and that they include operation of the KWB by the state. The first possibility is examined in the DEIR as NPA1 and NPA2. The second suggestion is analyzed in the DEIR CNPA3 and CNPA4. Operation of the KWB for SWP purposes is included in NPA1, CPNA3, and CPNA4. Use of the KWB for other purposes beyond SWP use is discussed as an alternative considered but rejected. See DEIR Chapter 11 pages 11-1 and 11-2 for a description of the no project alternatives and 11-7 through 11-33 for the analysis. See pages 11-6 to 11-7 for a discussion of a KWB alternative rejected. See also FEIR Subsections 11.2.3.1, 11.2.3.2, and 16.2.5.

## Response to Comment 64-34

The comment suggests that the Department did not look at an alternative that would reduce exports. The comment states that the EIR should include an analysis of an Article 18(b) alternative and an alternative that reduced exports and found alternative water sources to make up for the impacts to the contractors. See FEIR Subsections 11.2.1, 11.2.2, 11.2.4.1, and 11.2.4.2.

## Response to Comment 65-3

The comment states that the DEIR does an inadequate job of analyzing alternatives, including repealing the amendments wholesale. See FEIR Subsections 11.2.1 and 11.2.3.1.

## Response to Comment 65-7

The comment states that if Article 18(b) were implemented, then it would be clear what water in California is reliable and which water is not reliable and should not be used. It also states that the DEIR doesn't make it clear that Article 21 water should not be used for development and that dependence on Article 21 water is why the proposed project has significant impacts. See

FEIR Subsections 11.2.1 and 11.2.3.1. See also FEIR Subsection 9.2.5, especially Subsections 9.2.5.2 and 9.2.6.

## Response to Comment 65-15

This comment states that the DEIR should include consideration of alternatives that maintain the urban drought safeguard, provide a reassessment of the capacity of the SWP utilizing the KWB for drought mitigation and environmental restoration and establishes other incentives to reduce the amount on the Delta. The DEIR includes analysis of three alternatives that would retain the urban preference in droughts (NPA1, CNPA3, and CNPA4). NPA2 assumes elimination of the urban preference from 1995 to 2003 but restoration of the preference after 2003. See DEIR Chapter 11 pages 11-1 and 11-2 for a description of the no project alternatives. See also the discussion on pages 11-4 and 11-6 as to why an urban preference and dry year reliability alternative and a Kern Fan transfer with trust conditions alternative were considered but rejected for further analysis. See FEIR Subsections 11.2.3.2 and 11.2.4.1. See also FEIR Subsection 13.2.4.1 for more discussion on Article 18(a) and reliability of M&I contractor deliveries.

## Response to Comment 67-5

The comment asks for clarification of whether, in the case of CNPA3 and CNPA4, a permanent water shortage “would” have been declared in Article 18(b) or “may” have been declared. See FEIR Subsections 11.2.1, 11.2.2, and 11.2.3.1. See also FEIR Subsection 13.2.2 on invocation of Article 18(b).

# 12. CLIMATE CHANGE

# 12. CLIMATE CHANGE

## 12.1 INTRODUCTION

The following responses address comments on the climate change analysis contained in Chapter 12 Climate Change of the DEIR. Comments covered several primary issues including: the responsibility of the Department to assess local, regional and state-wide environmental impacts attributed to GHGs and climate change, project-related impacts on climate change, growth-inducing effects on climate change, and incorporating climate change in the analysis of impacts throughout the DEIR. This master response is organized by the following subtopics:

12.2.1 Impacts of Monterey Plus on Climate Change
12.2.2 Impacts of Climate Change on Monterey Plus
12.2.3 Incorporating Climate Change in the DEIR

Some of the comments received on the DEIR's climate change analysis are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Section 12.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include reference to the appropriate subsection or subsections of the master response where the comment is addressed.

Text changes to the DEIR Chapter 12 are presented in Section 12.4 and are included in Chapter 2 of this FEIR.

### Comments Addressed

This Chapter addresses the following comments: 13-1, 13-3, 21-52, 21-53, 21-55, 30-12, 30-59, 30-85, 30-140, 31-8, 42-4, 62-2, 64-9, 64-35, 65-6, 65-14, 66-21, and 67-25.

## 12.2 MASTER RESPONSE

### Summary

Some comments questioned the assessment of climate change in the DEIR. As explained on pages 12-1 through 12-2 of the DEIR, the Department acknowledges and recognizes the role of GHGs in contributing to potential climate changes around the globe. The Department is addressing these impacts through mitigation to reduce the Department's GHG emissions and adaptation measures to ensure an adequate water supply and flood protection now and in the future.

### 12.2.1 Impacts of Monterey Plus on Climate Change

Comments addressed in this subsection include: 21-52, 21-53, 30-12, 30-59, 30-140, 62-2, 65-6, 66-21, and 67-25.

Some of the comments related to the impact of Monterey Plus on climate change.

### 12.2.1.1 Impacts of increased SWP Power Use

As explained in Section 12.9 of the DEIR, the Department acknowledges that climate change is an important issue in water resources planning and has acted upon these concerns in a variety of ways, including through registering with the California Climate Action Registry, seeking replacement of coal-fired energy sources with alternative energy sources that emit less GHGs, and participating in State-wide efforts to research and develop better climate change models. Moreover, the Department co-chairs the Water-Energy Subgroup of the Governor's Climate Action Team, which is implementing water-related measures in the AB 32 Scoping Plan to reduce GHG emissions. In these and other ways, the Department is making progress in addressing the SWP's emission of GHGs and the related global warming effects and preparing for climate change effects on water resources.

More specifically, the DEIR provided an analysis of the proposed project's effects on energy use in Section 7.16 Energy. The analysis in this section shows that the proposed project would have an approximately 2.0 percent increase in energy use in 2020 or between approximately 40 to 55 thousand metric tons of $CO_2$ equivalent ($CO_2e$) emissions.

As when the DEIR was circulated, neither CARB nor regional air districts have adopted thresholds of significance by which to measure a project's potential impact on climate change. The Office of Planning Research's draft CEQA regulations on greenhouse gases do not include a proposed statewide threshold of significance. (OPR Proposed CEQA Guidelines Amendments, section 15056.4.) The DEIR stated on page 12-15 that "[W]hile it is not possible to determine whether the proposed project individually will have a significant impact on global warming or climate change, it is evident that the project will contribute to cumulative GHG emissions in California. In the absence of a threshold of significance, the Department nonetheless determined that the project will not be individually significant but, may be cumulatively significant.

The Department is reducing the SWP's $CO_2e$ emissions in a number of ways. The Department joined the California Climate Action Registry in June 2007, to better understand its current and future carbon footprint, and participate in a standardized program that will contribute to the Department's future analysis of its greenhouse gas reductions strategies. In June 2009, the Department filed its 2007 annual $CO_2e$ emissions report from the SWP, Department facilities, vehicles, and equipment. This report is incorporated by reference in the EIR pursuant to CEQA Guidelines Section 15150. The Department reported that its $CO_2e$ emissions in 2007 due to its electricity demand was 3.22 million metric tons.

The report updates the information in the DEIR and provides more specificity with regard to both emissions management programs and emission reduction projects of the SWP. With regard to emissions management programs, the SWP provides benefits to the CAISO wholesale power grid, including consuming off-peak resources, and contributing clean, carbon-free hydroelectric generation during peak hours. SWP hydroelectric generation replaces energy provided by less efficient, carbon emission producing generators during peak hours. The Department also provides grid participants with a zero-emissions energy product through a Demand Response option of dropping pump load up to 200 MW during the summer. See FEIR Section 12.4 for an update of Chapter 12.

As noted on DEIR pages 12-14 and 12-15, electric power needed to operate the SWP comes from its own and jointly developed hydroelectric facilities, long- and short-term purchase agreements, and a 30 year agreement with Nevada Power Company. Since July 25, 1983, the Department has received up to 235 MW from Unit 4, one of four units at the Reid Gardner coal-

fired generation facility located in Moapa, Nevada. The Department's most significant $CO_2e$ emission reduction project relates to this coal fired generation facility. In May 2007, the Department formally notified the plant's owner that the Department will not renew this agreement, which expires on July 25, 2013. The Department intends to replace this coal based energy with a combination of cleaner, more efficient resources, improvements to the SWP system, and renewable energy resources. At expiration of this contract, the Department anticipates that the SWP's emissions levels will drop to over 30 to 35 percent less than the SWP's emissions in 1990; this represents a reduction in emissions of about 1.25 million metric tons of carbon dioxide and is based on replacement energy derived from CCGT technology – using the CEC's forecasted rate of emissions in 2020.[1]

In addition, the Department is continuing to conduct internal reviews of its energy resources to assess the measures the Department can take to meet the Governor's Executive Order S-3-05 (The Impacts of Climate Change) and Assembly Bill (AB) 32 - The Global Warming Solutions Act of 2006. As set forth in the Registry Report, the Department is currently investigating ownership interest and contractual agreements to not only replace its resources provided by coal generation, but also to reduce its use of fossil fuels. This can be accomplished with a combination of cleaner, more efficient resources, including renewables, and improvements to the SWP system. The Department's improvement programs include pump and turbine replacements and refurbishments using state-of-the-art design and construction methods to bring SWP's hydroelectric units to first in class levels of energy efficiency. The A.D. Edmonston Pumping Plant and Edward Hyatt Powerplant are two SWP facilities where major energy efficiency projects have been undertaken with some still in progress.

The Department has provided a clear analysis of the effect of Monterey Plus on energy use, the changes in overall SWP energy sources, and the resulting changes in GHG emissions. As described above, the Department is currently pursuing a number of energy saving steps that will ultimately reduce GHG emissions from operating the SWP by over 30 to 35 percent less than the SWP's emissions in 1990. The Department reviewed the conclusions of the DEIR with regard to the effect of the proposed project on climate change in light of the Registry Report and the best scientific information available currently and finds that the conclusions are still valid. Because the proposed project would not result in a substantial increase in energy use and because the Department will be using cleaner energy sources in the future for the SWP which produce significantly less $CO_2e$ emissions per unit of energy generated, the proposed project would not result in an increase in GHGs that result in climate change. Furthermore, even including any increase in energy use form the Monterey Amendment, the SWP will significantly reduce GHG emissions by 2020, consistent with the AB 32 mandate (see page 12-15 of the DEIR).

This approach is consistent with the approach suggested in The Governor's Office of Planning and Research Proposed SB 97 Amendments to the CEQA Guidelines to address analysis and mitigation of the potential effects of greenhouse gas emissions (transmitted to the Secretary of Resources on April 13, 2009).

## Impacts of Changes on Local Development

Some comments suggest that the DEIR should have done an analysis of the location of where potential growth inducement might occur and the potential for more or less GHG emissions.

1 Holly Cronin, Department of Water Resources, State Water Project Operations Division, Office of Risk Analysis and Project Power Planning, personal communication with Erick Cooke, PBS&J, December 15, 2008.

Some also suggested that the DEIR should have analyzed the potential change in GHG emissions due to the change in Article 18(a) which allocates shortages on a pro rata basis instead of agriculture first. Others suggested that the nature and patterns of growth can significantly increases overall GHG emissions of a given population.

In general, urban water end use is more energy intensive than agricultural water end use, and, thus, depending upon the type of energy applied to water, a shift from agricultural to urban end use could result in more GHG emissions. The DEIR does not assert that location of growth bears no relationship to GHG emissions. It recognized that the proposed project may result in changes in growth patterns at the local level, but would not have an effect on statewide population growth and thus "within the SWP service area as a whole, the proposed project would not result in any changes in GHG emission due to growth." The EIR identifies potential increases in population that could be supported by the proposed project and it identifies potential impacts and mitigation measures that could result from local development decisions in general terms. See Chapters 8 in the DEIR and FEIR.

The comments appear to confuse the Department's role regarding the proposed project's impacts (over which the Department has some authority and control) with the role of individual municipalities or other local jurisdictions with lead agency status over land use planning (over which the Department does not have authority or control). As discussed in FEIR Subsection 8.2.2.2, the level of detail contained in the DEIR for growth-inducing impacts and reliability analyses is consistent with the general level of review required for the Monterey Amendment. Even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities, local water resources and local water use. The potential environmental impact of growth is subject to more detailed environmental review at the project level. Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Even if the Department had the authority to make such decisions at this level of detail, it is not timely or practicable for the Department to identify and monitor or regulate individual decisions made by local government or to establish general rules that would govern these decisions. These decisions are within the authority and control of and properly deferred to local decision-makers where specific projects can be more fully described and are ready for detailed analysis. This approach is consistent with the traditional legislative policy that fundamental decisions regarding land use and growth are made through the general planning process at regional and local levels. See FEIR Subsection 8.2.2.2.

Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Even if the Department had the authority to make such decisions at this level of detail, it is not timely or practicable for the Department to analyze each individual decision made by local government that might rely upon increases in SWP water from the proposed project and then to monitor or second-guess each individual decision made by local government or to establish general rules that would govern these decisions. Nor would it meet most, if any, of the objectives of the Monterey Amendment. The Department rejects the idea that it should use its management of the SWP to manage or block future economic growth including housing that would serve the State's growing population. These decisions are within the authority and control of and properly deferred to local decision makers where specific projects can be more fully described and are ready for detailed analysis. This approach is consistent with the traditional legislative policy that fundamental decisions regarding land use and growth are made through the general planning process at regional and local levels. See FEIR Subsection 8.2.2.2. The Department's role in water reliability planning includes the issuance of the SWP Delivery Reliability Report every two

years which informs local decision makers of water supply limitations of SWP water and is discussed in FEIR Subsection 9.2.6.

Additionally, local jurisdictions must provide their own water supply assessments for development projects meeting the criteria set forth in SB 610 and SB 221 (2002) to ensure water supplies are available to serve new development and urban water suppliers must prepare Urban Water Management Plans. See DEIR Subsections 9.2.2 and 9.3.2. In addition, local jurisdictions must follow state law regarding land use planning effects on greenhouse gas emissions enacted by Assembly Bill 32. Land use planning and urban sprawl is also addressed in SB 375 (2008) (Steinberg) which requires development of a sustainable communities strategy to reduce greenhouse gas emissions. Development of the strategy is to be done at the regional level with state oversight. The Department is also involved in this process. SB 375's policies are based on the assumption that regional and community planning is the best place to address GHG emissions, significance and mitigation, especially as it relates to land use planning. The bill requires metropolitan planning organizations to develop and incorporate a sustainable communities strategy which will be the land use allocation in the regional transportation plan and encourages developers to submit applications and local governments to make land use decisions that will help the state achieve its climate goals under AB 32, assist in the achievement of state and federal air quality standards, and increase petroleum conservation.

The Department's recent White Paper on Climate Change called *Managing an Uncertain Future: Climate Change Adaptation Strategies for California's Water* (October 2008) focuses special attention on two regional adaptation strategies that offer a framework for water managers to address water-related challenges and provide for future needs.

The first is a strategy that would fully develop the potential of IRWM and states that:

> if appropriately developed and implemented, IRWM plans—in combination with other regional planning efforts for transportation and land use—can serve as the basis for broader community adaptation plans for climate change. By 2011, all IRWM plans should include specific elements to adapt to a changing climate, including:
>
> - An assessment of the region's vulnerability to the long-term Increased risk and uncertainty associated with climate change
>  - An integrated flood management component
>  - A drought component that assumes, until more accurate information is available, a 20 percent increase in the frequency and duration of future dry conditions
> - Aggressive conservation and efficiency strategies
> - Integration with land use policies that:
>  - Help restore natural processes in watersheds to increase infiltration, slow runoff, improve water quality and augment the natural storage of water
>  - Encourage low-impact development that reduces water demand, captures and reuses stormwater and urban runoff, and increases water supply reliability

The second is a strategy that would aggressively increase water use efficiency and states that:

> Efficient water use can help communities cope with water shortages that may result from climate change, thus reducing economic and environmental impacts of water shortages. Water use efficiency must be a cornerstone of every water agency's water portfolio. As

directed by Governor Schwarzenegger, DWR in collaboration with the Water Boards, the California Energy Commission (CEC), the California Public Utilities Commission, the California Department of Public Health, and other agencies, are developing and will implement strategies to achieve a statewide 20 percent reduction in per capita water use by 2020.

### 12.2.2 Impacts of Climate Change on Monterey Plus

Comments addressed in this subsection include: 22-28, 30-12, 30-34, 30-85, 30-140, 31-8, 42-4, 62-2, 64-9, 64-35, 65-6, 65-14, 66-21, and 67-25.

### Background

Some comments requested that the DEIR include an analysis of climate change on Monterey Plus water supplies and deliveries. As described in Chapter 12 on pages 12-5 through 12-14 more research is required to further improve the ability to predict weather events at various time scales and to understand the mechanisms of large-scale climate change and its local impact on water resources.[2] In addition, the scientific consensus on climate change models is that each one shows different predictions; one shows drier and hotter future years, while another shows cooler and wetter years. More recently, the IPCC has stated that "difficulties remain in attributing temperature on smaller than continental scales and over time scales of less than 50 years. Attribution at these scales, with limited exceptions, has not yet been established."[3] Because of the wide disparity in climate change models, the Department and other State agencies are working with universities around the world to research and refine climate change models. See the discussion below on recent studies and reports completed by the Department.

The priorities for investigating and responding to climate change as it affects water resources and delivery systems should be viewed in the context of statewide water planning policy as set by the California Water Plan Update, Governor's water policy, and legislative review. An integrated approach to the Department's activities will allow priorities to be set based on statewide strategic water plans to meet present and future beneficial uses through formal stakeholder involvement in the Water Plan Update Advisory Committee process. The Advisory Committee process will also be useful in assisting local agencies responding to climate change impacts by facilitating the dissemination of climate change information and modeling studies. See *The State of Climate Change Science for Water Resources Operations, Planning and Management* (January 2009) a draft of the State Climatologist's article assessing the state of climate change science available for California water resources operations, planning, and management at the time of the second CAT assessment and Water Plan Update 2009. The document examines observations, paleoclimate, future projections, and planning and assessment tools that are used to inform climate change mitigation and adaptation efforts.

2 Miller, Norman L., *California Climate Change, Hydrologic Response, and Flood Forecasting*, Earth Sciences Division, Berkeley National Laboratory, Berkeley, California. Presented at the International Expert Meeting on Urban Flood Management, 20-21 November 2003, World Trade Center Rotterdam, The Netherlands.

3 Intergovernmental Panel on Climate Change, 2007. G.C. Hegerl, "Understanding and Attributing Climate Change" Chapter 9, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Similarly, the 2005 report of the National Research Council entitled Radiative Forcing of Climate Change: Expanding the Concept and Addressing Uncertainties states that the mechanisms involved in land-atmosphere interactions "are not well understood, let alone represented in climate models."

## Recent Department Studies

The DEIR discussed the Department 2006 report on *Progress on Incorporating Climate Change into Management of California's Water Resources* (page 12-6 to 12-9 and 12-12 to 12-14). This report looked at four climate change scenarios which all predict a general warming trend for California and presented potential impacts of these scenarios on CVP/SWP operations and deliveries, and Delta water quality and water levels. In May 2009, the Department published *Using Future Climate Projections to Support Water Resources Decision Making in California.* This paper presents an overview of advances that the Department has made since the 2006 report toward using future climate projection information to support decision-making by quantifying possible impacts to water resources for a range of future climate scenarios. This paper presents several advances in using future climate projection information in water resources planning, such as an improved understanding of how well selected climate models represent historical climate conditions and refined methodologies for representing streamflows, outdoor urban and agricultural water demands, and sea level rise in planning tools. Twelve climate projections were used to assess the future reliability of California's main water supply projects. Midcentury and end-of-the-century impacts were estimated for Sacramento-San Joaquin Delta exports, reservoir carryover storage, groundwater pumping, power supply, and the Delta salinity standard known as X2. The vulnerability of the system to operational interruption was also examined. A sensitivity analysis was also conducted to examine the effects of air temperature on runoff in the Upper Feather River basin, the main inflow source to Lake Oroville. The range of impacts presented in this paper indicates a need to explore adaptation measures to improve the reliability of future water supplies in California. Expected impacts to the SWP and CVP include pumping less water south of the Delta, having less surplus water in reservoirs that can be used during shortages, pumping more groundwater to augment reductions in surface water supplies, and an increased risk that insufficient water availability could interrupt SWP and CVP operations. A water shortage worse than the one during the 1977 drought could occur in 1 out of every 6 to 8 years by mid-century and 1 out of every 3 to 4 years at the end of the century.

The most recent SWP Delivery Reliability Report (2007) incorporates climate change scenarios which correspond to the scenarios contained in the 2006 report. It shows that future SWP deliveries will be impacted by two significant factors. The first is climate change, which is altering hydrologic conditions in the State. The second is significant restrictions on SWP and CVP pumping to protect delta smelt. The report shows that if no actions for improvement are taken, there will be a continued eroding of SWP water delivery reliability under the current method of moving water through the Delta. The analysis shows that annual SWP deliveries (Table A and Article 21 amounts) would decrease virtually every year in the future (93 percent of future years). These reductions would be amount to a 20 percent reduction from current levels about one-fourth of the time, and greater than 30 percent in one-sixth of future years. The report discusses areas of significant uncertainty to SWP delivery reliability, including the recent and significant decline in pelagic organisms in the Delta (open-water fish such as delta smelt and striped bass); climate change and sea level rise; and the vulnerability of Delta levees to failure due to floods and earthquakes.

In October 2008, the Department's released a White Paper on Climate Change called *Managing an Uncertain Future: Climate Change Adaptation Strategies for California's Water.* As part of the process of updating the California Water Plan, and as part of the California Resources Agency's draft statewide Climate Adaptation Plan, this report urges a new approach to managing California's water and other natural resources in the face of a changing climate. The report states that for California water mangers, "the future is now" The report recognizes that climate

change is already having a profound impact on water resources as evidenced by changes in snowpack, river flows and sea levels and that the Department will continue to play a leadership role in adapting to these changes. The report recommends a series of adaptation strategies for state and local water managers to improve their capacity to handle change. Many of the strategies will also help adapt our water resources to accommodate non-climate demands including a growing population, ecosystem, restoration and greater flood protection. The strategies include activities and programs that would fund and support statewide and integrated regional water management planning, and aggressively increase water use efficiency at the local level, support integrated flood management, enhance and sustain ecosystems, expand water storage and conjunctive management of surface water and groundwater resources, fix Delta water supply quality and ecosystem conditions and improved management and decision-making.

The Department maintains a website that posts information on the progress of incorporating climate change in the *Water Plan Update 2009* at: http://www.waterplan.water.ca.gov/climate/index.cfm, which includes a *The State of Climate Change Science for Water Resources Operations, Planning and Management* (January 2009). In addition, the Department also manages a website on climate change which includes *Managing an Uncertain Future: Climate Change Adaptation Strategies for California's Water* (October 2008) and links to other relevant publications and organizations relating to climate change at http://www.water.ca.gov/climatechange/docs/ClimateChangeWhitePaper.pdf. It includes the Department's 2006 report on *Progress on Incorporating Climate Change into Management of California's Water* Resources and the May 2009 report on *Using Future Climate Projections to Support Water Resources Decision Making in California.* These reports are incorporated by reference in the EIR pursuant to CEQA Guidelines Section 15150.

### Adequacy of Climate Change Analysis in DEIR

Using the analysis of the 2006 report on *Progress on Incorporating Climate Change into Management of California's Water Resources*, the DEIR concluded that Table A deliveries could decrease by 10 to 25 percent under the baseline scenario and with the proposed project with the greatest effects occurring in critically dry years and that the differences between the baseline scenario and the proposed project are negligible showing that the Table A transfers and altered water allocation procedures would have no effect on the SWP's vulnerability to climate change (DEIR page 12-13). It also concluded that "overall, given current SWP facilities, SWP water supplies will become less reliable under the trends that have been identified with climate change with or without the Monterey Amendment. As noted by the Department's Director, current and future droughts are likely to be deeper and longer than historical droughts and conservation efforts need to be redoubled." (DEIR page 12-14). The Department reviewed the conclusions of the DEIR with regard to the effect of the climate change on the proposed project in light of the best scientific information available currently and finds that the conclusions are still valid.

## 12.2.3 Incorporating Climate Change in the DEIR

Comments addressed in this subsection include: 21-55, 30-12, 30-34, 30-85, 31-8, 64-9, 64-35, 65-6, 66-21, and 67-25.

Some comments suggested that the DEIR should incorporate climate change throughout all impact analyses.

The effects of the Monterey Plus on operation of the SWP were described and analyzed in Chapter 6 of the DEIR, including analyses of Table A deliveries in the future (2020). The analysis of Climate Change in Chapter 12 of the DEIR builds upon this information and shows how deliveries could be changed based on climate changes. As discussed above, the DEIR showed that deliveries could be reduced by as much as 10 to 25 percent under the baseline and under the proposed project. It also showed the proposed project would not have an effect on the SWP's vulnerability to climate change. Tables A-4a through A-6f of DEIR Appendix F include quantified impacts of climate change as part of the CALSIM analysis of the revised allocation methods, Table A transfers, and Table A retirement. The tables indicate how deliveries would be affected by climate change in the five hydrologic year types evaluated in the EIR.

In the broader context of how operational actions under both existing and future conditions were evaluated in the DEIR, it is apparent that a sufficiently broad range of potential future hydrologic conditions was in fact applied to analysis of the proposed project on hydrology and water supply. The hydrologic conditions applied appropriately reflect the extremes in annual climate variability, from very dry hydrologic cycles to very wet hydrologic cycles that could be expected over the next 20 years.

Operations modeling performed in support of the DEIR reflect the above variability - analyzing 73 different years throughout the SWP. This modeling covers a truly wide range of hydrologic conditions, from multi-year dry periods where releases were very restricted to wet periods. This modeling was designed to provide input to the environmental analyses to evaluate a broad range of potential future hydrologic conditions that reflect the expected variability in regional climate.

Over the coming decades, the Department expects rainfall, snowmelt, and runoff patterns to be different from year to year, just as they have historically varied significantly on an annual basis. As such, the measures included in the DEIR were formulated and analyzed to successfully operate the SWP under a very broad range of anticipated hydrologic conditions.

In effect, the EIR overstates the impacts of the water supply management methods of the proposed project on the Delta under scenarios where less water is available to be allocated by the Department due to climate change, loss of Delta export capacity, dry hydrology, increased regulatory constraints, or related factors. In addition, many of the impacts of the water supply management methods have been quantified during a period when contractor requests have been less than full Table A, thereby allowing banking of some of their water supplies, and thus impacts may be overestimated for future conditions. See FEIR Subsection 6.2.2.2 for more discussion on how changing climate and hydrological changes can affect the magnitude of impacts on the proposed project or impacts of the proposed project on the environment and FEIR Subsection 6.2.2.3 for discussion on the use of the future timeframe of 2020.

EIRs are expected to evaluate impacts that are reasonably foreseeable. The DEIR may overstate the amount of water that is available for allocation to the SWP contractors because current regulatory constraints on Delta export pumping are more stringent than the 2003 conditions used in the DEIR and future SWP deliveries are likely to be reduced compared to 2003 conditions. If the DEIR overestimates deliveries, the consequence is that it also overestimates environmental impacts. In an environmental disclosure document such as an EIR, it is better to overstate than to understate the potential impact so that the public and decision makers can see the full environmental extent of their decisions. See FEIR Subsection 6.2.2.2.

Some comments appear to express a concern that local governments and other decision makers might rely on the EIR delivery estimates in determining the reliability of SWP water. Overstating the amount of water available could be a problem in documents that are relied upon for determining water reliability. The values in this EIR analysis should not be used to estimate current available SWP water or the reliability of future deliveries. There are other tools that are intended to help determine the reliability of water such as Urban Water Management Plans and the Reliability Report released by the Department. See FEIR Chapter 9 on water supply reliability. See also FEIR Subsection 6.2.2.2.

## 12.3 RESPONSES TO INDIVIDUAL COMMENTS

### Response to Comment 16-100

The Department agrees with the comment; however, no change to the text of the DEIR will be made.

### Response to Comment 16-101

The comment requests that the year identified in the title for Table 12-2 on page 12-13 of the DEIR is changed from “2020” to “2050” to make it consistent with the note to the table showing that the supply reductions shown are based on studies representing projected changes centered around 2050. As stated on page 12-6 and 12-12 of the DEIR, climate models project hydrologic conditions centered around 2050 and this was applied to the Table A allocations modeled for 2020. Table 12-2 identifies the potential effects of climate change (centered around 2050) on the Table A deliveries (calculated for 2020). Therefore, the Table is correct and will not be revised.

### Response to Comment 13-1

This comment requests that the DEIR include information on the proactive steps that the Department has taken as part of Monterey Plus to mitigate climate change impacts through its support of the Plumas Watershed Forum and the Feather River Watershed Management Strategy. The Department support for the Plumas Watershed Forum and the Feather River Watershed Management Strategy result from the Settlement Agreement which had a goal to implement watershed management and restoration activities for the mutual benefit of Plumas County FCWCD. The Forum’s goals as set forth in the Settlement Agreement were to improve storage of water for augmented baseflow in streams; improving water quality (reduced sedimentation) and streambank protection; improving upland vegetation management; and improving groundwater retention and storage in major aquifers. As a result of the Forum’s activities more than $2 million has been spent on programs to meet these goals. A number of programs funded were meadow restoration projects.

A program review of the programs funded under the Forum was completed in 2008. *Plumas Watershed Forum Program Review (May 2008),* http://www.countyofplumas.com/publicworks/watershed/index.htm. Part of the review was directed towards the benefit of the programs for State Water Project supplies. The review recognized that the upper Feather River watershed restoration program—in the aggregate, including intervention and intervention-support efforts of several organizations—is likely cost effective in augmenting base flow and improving water quality and watershed condition and recommended increased intervention funding and long-term restoration funding for the Upper Feather River Watershed. See Section 5.1 of the *Plumas Watershed Forum Program Review*.

As stated in DEIR Chapter 12 Climate Change, there are no project impacts on climate change that require mitigation. Analyses of programs to mitigate for impacts of climate change on water supplies are beyond the scope of the EIR. On a statewide water management scale, however, the Department recognizes the value of watershed forests and meadow systems. In the Department's *Managing an Uncertain Future: Climate Change Adaptation Strategies for California's Water* (October 2008) includes as Strategy 5, Enhance and sustain Ecosystems. The report states that the state should consider actions to protect, enhance and restore upper watershed forests and meadow systems that act as natural water and snow storage. This measure not only improves water supply reliability and protects water quality, but also safeguards significant high elevation habitats and migratory corridors. This issue will also be included in *The California Water Plan Update, 2009.* The comments received are part of the permanent record for this proposed project and will be forwarded to appropriate Department staff for consideration.

## Response to Comment 13-3

This comment requests that the Department explore the potential for cumulative benefits by addressing carbon sequestration in the SWP's watershed and by supporting forest management protocols such as those that have begun to be implemented under the Herger-Feinstein Quincy Library Group Pilot Project. See Response to Comment 13-1.

## Response to Comment 21-52

The comment states that the final EIR should more thoroughly analyze the extent to which the proposed project will result in additional greenhouse gas emissions caused by the additional urban sprawl fuel by various s aspects of the project. See FEIR Subsection 12.2.1.

## Response to Comment 21-53

The comment states that the DEIR does not explore whether there would be a relative difference in impacts upon M&I contractors versus agricultural contractors because of the change in priorities in Article 18(a). See FEIR Subsection 12.2.1. See also FEIR Subsection 13.2.4 for a discussion on Article 18(a) and reliability of M&I contractor deliveries regarding whether there is an "urban shortage."

## Response to Comment 21-55

The comment states that climate change should be incorporated into the analyses contained within the rest of the DEIR. See FEIR Subsection 12.2.3. See also Response to Comment 21-55 in Chapter 6.2.

## Response to Comment 22-28

This comment is an attachment to the Letter 22. The attachment is a letter from PCL that criticizes the Department's 2006 Report on Progress on Incorporating Climate Change into Management of California's Resources. The Department responded to that letter as part of the 2007 Final State Water Project Delivery Reliability Report; therefore, the letter is not being responded to as part of this FEIR. The Department responded to a number of the comments and also pointed out that other comments had been responded to in the 2002 and 2005 Delivery Reliability Reports, http://baydeltaoffice.water.ca.gov/swpreliability. The Progress Report was updated in a publication titled Using Future Climate Projections to Support Water Resources

Decision Making in California (May 2009), http://www.water.ca.gov/climatechange/articles.cfm. See FEIR Subsection 12.2.2.

## Response to Comment 30-12

This comment states that the DEIR "evades full assessment of project-related climate changes" while deferring any analyses of climate changes to local agencies. The comment does not describe where the DEIR was supposedly deficient in its analysis of project-related climate changes. DEIR Section 7.16 Energy and Chapter 12 Climate Change provide analyses of the proposed project's impact on energy resources and climate change impacts on water supplies through the SWP, compared to baseline conditions. Because the proposed project would not result in a substantial increase in energy use and because the Department will be using cleaner energy sources in the future, the proposed project would not, by itself, result in an increase in GHGs that result in climate change. It is anticipated that the project will nonetheless result in additional GHG emissions that will contribute cumulatively to climate change. Further, it is unclear what the commenter means by project-specific climate changes as the project does not result in climate changes. Although it is possible to generally estimate a project's incremental contribution of $CO_2$ into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment. The Department does not agree that the EIR should identify the site specific impacts of specific developments. See also FEIR Subsections 12.2.1, 12.2.2, and 12.2.3.

## Response to Comment 30-34

The comment states that the DEIR incorrectly states that too little is known about climate change to warrant incorporation of findings into the baseline and alternatives and that the DEIR provides a cursory discussion of climate change in a separate section of the EIR. The DEIR stated "[A]s noted earlier, in some scenarios, there could be future decreases in Table A allocations in the drier scenarios and fewer opportunities for Article 21 deliveries. The degree to which these effects will be felt between now and 2020 has not been studied and they remain unknown. Therefore climate change was not incorporated into the CALSIM II modeling for this EIR, for this reason, and because of the limitations stated previously." The DEIR did, however, provide an estimate of the potential effects of climate change on Table A deliveries. The Department disagrees with the statement that the discussion was cursory. See FEIR Subsections 12.2.2 and 12.2.3. Variations in climate change would not change the analysis of the effect of the proposed project on the environment although it is possible that impacts would be less if requests and deliveries were also less. To the extent that climate change reduces the amount of water available for SWP export from the Delta, potentially significant adverse environmental impacts from the Monterey Amendment on the Delta would be reduced. See FEIR Subsection 6.2.2. The DEIR did not include the effects of climate change in either the baseline or proposed project scenarios. Instead, a separate analysis of its effects was made and included in Chapter 12 of the DEIR. See also FEIR Subsection 6.1.2.4.1 on the baseline.

## Response to Comment 30-59

The comment states that the DEIR should analyze how the proposed Monterey Amendments will affect the possibility that turning "surplus" water into water that facilitates permanent new development in areas that are currently rural or agricultural will have a very significant impact on greenhouse gas emissions. See FEIR Subsection 12.2.1. See also FEIR Subsections 9.2.5.1 and 9.2.5.1 regarding the elimination of Articles 18(b) and 21(g)(1). Although the Department is

aware of storage of Table A and Article 21 water which may lead to additional local development due to the drought "buffer" from additional stored supplies, the Department is not aware of any local water supplier or local governmental agency that relies upon "the sustained delivery of surplus water" to support the development of a local economy. See FEIR Subsection 13.2.4 for a discussion on Article 18(a) and reliability of M&I contractor deliveries regarding whether the change in the "agriculture first" preference.

## Response to Comment 30-85

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-85 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that it is crucial that the DEIR study the consequences of climate change, both in the "no project" alternative and in its assessment of the project and project alternatives. It also stated that the Department's revision of its *2003 SWP Delivery Reliability Report* should also identify what SWP deliveries are projected to be with the projected decrease in snow pack. See FEIR Subsections 12.2.2 and 12.2.3.

### Response to Comment 30-140

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-140 is a letter provided to the Department by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the comment discusses a number of studies, including studies on climate change prepared by the Department that show that it is unlikely that future California hydrology will be the same as past hydrology and states that, in spite of all this evidence, the Department has based all analyses on past hydrology. See FEIR Subsections 12.2.1, 12.2.2, and 12.2.3. See also FEIR Subsection 6.2.2.2 and Response to Comment 30-140 in FEIR Section 6.1.

## Response to Comment 31-8

This comment expresses concern with the analysis of climate change and the proposed project. The comment requests that the Department conduct an integrated climate change analysis of the proposed project and of the alternatives based on "conservation and/or dispersed regional development alternatives." Without further explanation of these alternatives, it is unclear what alternatives the comment references with respect to the alternatives in the DEIR. The comment agrees that the Department has conducted sophisticated climate change analyses with regard to sea level rise, reduced snow pack, and increased rainfall variability and asks that the same be done throughout the DEIR. The comment is referred to DEIR Chapter 12 Climate Change,

which describes the Department's and others' efforts to develop methodologies to model and predict effects of climate change on water resources in California. Chapter 12 of the DEIR also explains the limitations of developing climate change methodologies and how the Department, among others, continues to work on refining those methodologies. See FEIR Subsections 12.2.2 and 12.2.3. The Department has used the best available information to determine climate change impacts. No other information was presented during the CEQA process by individuals commenting on the DEIR that would suggest any new information is available on this subject that would change the conclusions of the DEIR.

### Response to Comment 42-4

The comment states that there will be a decrease in anticipated water deliveries as snowpack decreases. See FEIR Subsection 12.2.2.

### Response to Comment 62-2

The comment suggests that the EIR should consider the effect of climate change on the state's water with regard to increased temperatures and early melting of snows. It also states that the EIR should how much ambulatory air pollutants and global warming gas is produced by the proposed project. See FEIR Subsections 12.2.1 and 12.2.2.

### Response to Comment 64-9

The comment states that there should be some detailed analysis on both how climate change impacts will be factored into adaptive management and some analysis of the paleo-climatological record of the areas of origin, including mega-droughts. See FEIR Subsections 6.2.2, 12.2.2, and 12.2.3. The DEIR discussed catastrophic actions which could reduce reliability of water supplies (see page 12-13). Climate change and other hydrologic changes can reduce SWP reliability and deliveries and thereby reduce potential impacts. See FEIR Subsection 6.2.2.2. The proposed project does not affect areas of origin. See FEIR Subsection 13.2.5.

### Response to Comment 64-35

The comment requests that the document look at what will happen with global warming and the associated reduction in snow pack. It also states that meadow restoration can help maintain or increase SWP water supplies. See FEIR Subsections 12.2.2 and 12.2.3. See also Responses to Comments 13-1 and 13-3.

### Response to Comment 64-37

The comment encourages looking at the impacts of Sierra County as well as the lower water-shed in Plumas County. See Response to Comment 13-1 and 13-2.

### Response to Comment 65-6

The comment asks if the FEIR will include new information on climate change. See FEIR Subsections 12.2.1, 12.2.2, and 12.2.3.

### Response to Comment 65-14

The comment states that climate change may reduce reliability of the Delta and that this should cause the Department to pause before it considers adopting changes that will likely encourage even great reliance on the Delta. See FEIR Subsection 12.2.2.

### Response to Comment 66-21

The comment suggests the DEIR has not considered to the fullest extent possible the changes that will result from global warming. The comment does not explain where the DEIR was deficient in analyzing climate change and water resources planning. See FEIR Subsections 12.2.1, 12.2.2, and 12.2.3.

### Response to Comment 67-25

The comment noted that this is one of the first water documents to come out since everybody has accepted global warming and wonders if "that" is in the document. See FEIR Subsections 12.2.1, 12.2.2, and 12.2.3.

## 12.4 TEXT CHANGES

Corrections and updates initiated by staff have been made to the DEIR as shown below. These changes do not change any significance findings or mitigation measures found in the DEIR. New text is indicated in double underline and text to be deleted is reflected by a ~~strikethrough~~.

Page 12-1, fourth paragraph, the first sentence is revised to read:

> Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide ($CO_2$), and nitrous oxide ($N_2O$), plus the three fluorinated gases hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride ($SF_6$)~~methane ($CH_4$), ozone ($O_3$), water vapor, nitrous oxide, and chlorofluorocarbons (CFCs)~~.

Page 12-2, the last sentence is revised to read:

> In order to achieve the climate change emission targets, in June 2005, the Secretary formed the Climate Action Team, which is comprised of administrators from numerous State agencies, including the Department.

Page 12-3, Section 12.2.3, second paragraph, beginning on the fifth line is revised to read:

> ~~By January 2008,~~ In November 2007, after extensive public review and comment the CARB ~~will~~ determined the statewide GHG emission level in 1990 to be 427 million metric tons of $CO_2$ equivalent ($CO_2e$) emissions through review of the best available scientific, technological, and economic information, as well as provide~~d~~ing opportunities for public review and comment.

Page 12-14, Section 12.9, the first paragraph is revised to read:

> In May 2009, the California Climate Action Registry (CCAR) completed its final verification of the Department's 2007 Greenhouse Gas Emissions (GHG) Inventory Report. Consistent with the accounting methodologies set forth in the CCAR reporting protocols, in 2007 the State Water Project (SWP) power purchase portfolio emissions

equaled 3.22 million metric tons of $CO_2$e emissions. In June 2009, the Department filed its 2008 GHG Inventory Report, which will in turn be independently verified by an independent verifier, and ultimately reviewed and published by the CCAR. For 2008 the State Water Project (SWP) power purchase portfolio unverified emissions equal 2.69 million metric tons of $CO_2$e emissions. the Department's expects that its verified 2008 GHG Emissions Inventory Report will be published in January 2010. Further, future power use trends could be partly offset if SWP deliveries decline, requiring less purchased power to operate the SWP, although clean hydropower generation at Oroville and other SWP facilities would also decline somewhat under a lower delivery scenario.

Page 12-14, Section 12.9, third paragraph, the fifth line is deleted:

~~However, no standards have yet been adopted quantifying 1990 emission targets.~~

Page 12-15, first full paragraph: Change $CO_2$ to $CO_2$e.

Emitting $CO_2$e into the atmosphere is not itself an adverse environmental affect. It is the increased concentration of $CO_2$e in the atmosphere resulting in global climate change and the associated consequences of climate change that results in adverse environmental affects (e.g., sea level rise, loss of snowpack, severe weather events). Although it is possible to generally estimate a project's incremental contribution of $CO_2$e into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment. Given the complex interactions between various global and regional-scale physical, chemical, atmospheric, terrestrial, and aquatic systems that result in the physical expressions of global climate change, it is impossible to discern whether the presence or absence of $CO_2$e emitted by the proposed project would result in any altered conditions.

Page 12-15, second full paragraph, the second sentence is revised to read:

The SWP's total GHG emissions are currently estimated at 0.6 percent of statewide emissions. As described in Section 7.16, the proposed project has the potential to ~~will~~ increase SWP ~~power use~~ electricity consumption by approximately 2~~.02~~ percent ~~over existing power use~~from the baseline scenario; thus an increase of approximately 2.~~02~~ percent in the SWP's GHG emissions from the baseline is possible. In 2008, regulatory, environmental, and hydrologic conditions, including low carryover storage levels in California's major reservoirs, drought conditions, and water delivery restrictions from the Delta have reduced the energy resources associated with the SWP. Consequently $CO_2$ emissions for SWP bilateral contracts and electricity imports decreased in 2008 by 27 percent. In 2007 the SWP pumpload equaled 9,800 gigawatt hours (GWH). By 2008, the SWP pumpload decreased to 6,043 GWH. Applying the data from 2007 and 2008 to provide a range in estimated $CO_2$e emissions, a 2 percent increase in pumpload will result in an estimated 40 to 55 thousand metric tons.

Page 12-15, following the last paragraph. Add the following text at the end of Section 12.9:

In May 2009, the California Climate Action Registry (CCAR) completed its final verification of the Department's 2007 Greenhouse Gas Emissions (GHG) Inventory Report, and awarded the Department with the status of one of California's Climate Action Leaders. The following information is taken from this 2007 Report, the Draft (e.g., unverified) 2008 Greenhouse Gas Emissions (GHG) Inventory Report, and updates the

information in the DEIR regarding the Department's commitment to reducing GHG emissions from the operations of the SWP:

**2007 Emissions Efficiency metric: 0.27 MT $CO_2$/MWh**

**Emissions Management Programs:**

The SWP's aqueducts and reservoirs were designed to provide water storage with some flexibility for the SWP to pump during hours of lower power demand and generate during hours of higher power demand. However, this flexibility is constrained by water delivery obligations and environmental and regulatory requirements.

In addition to the vital role of the SWP as California's water delivery system and the functions the Department performs in managing floods, the SWP provides benefits to the CAISO wholesale power grid, including consuming off-peak resources, and contributing clean, carbon-free hydroelectric generation during peak hours. SWP hydroelectric generation replaces energy provided by less efficient, carbon emission producing generators during peak hours.

The Department also provides grid participants with a zero-emissions energy product through a Demand Response option of dropping pump load up to 200 MW during the summer. This service effectively reduces greenhouse gas emissions by decreasing the amount of peak generation that would be necessary and likely served by inefficient, high carbon emitting resources. The SWP is California's largest individual demand response provider.

DWR develops and administers a comprehensive power resources program for the strategic timing of generation and pumping schedules, purchase of power resources and transmission services, short-term sales of energy surpluses, and studies of resources for future needs.

DWR is continually evaluating its operational strategies and energy portfolio to increase its carbon free energy resources to complement SWP's ability to deliver water using environmentally sensitive and sustainable energy resources.

The State Water Project Power Purchase Portfolio MWh and Metric Tonnes (MT) of $CO_2$ represent gross emissions levels. However, when SWP power purchases exceed the energy required to serve the SWP's pumpload, DWR sells its surplus energy. Since SWP sales transactions are not tied to specific generation resources, the SWP emissions rate of 0.27 MT $CO_2$/MWh represents MT CO2 divided by MWh from all Generation Sources. This derived rate yields an estimated 0.36 Million MT (MMT) CO2 associated with Electricity Sales. Consequently, the $CO_2$ emissions associated exclusively with the SWP pumpload requirements in 2007 equals 2.6 MMT $CO_2$.

In 2008, the SWP emissions rate increased to 0.36 MT $CO_2$/MWh, due to lower percentage of hydrogeneration resources available for use in the SWP's electricity portfolio. However, since pumploads were substantively lower in 2008, although the SWP's rate of emissions increased, overall emissions for DWR diminished. In 2008, 0.9 MMT $CO_2$ are associated with SWP wholesale electricity sales. Consequently, the $CO_2$ emissions for SWP operations in 2008 is currently estimated at 1.8 million metric tons $CO_2$.

**Emissions Reduction Projects:**

DWR operates California's SWP, the largest State-built multipurpose project in the United States. Each pump manufactured for the SWP meets the highest standards and the highest levels of efficiencies that are technically possible at the time the pumps are manufactured, refurbished, or replaced. DWR also invests substantial resources to conduct engineering feasibility and design studies to improve the overall water to energy conversion of all SWP equipment and facilities. DWR's improvement programs include pump and turbine replacements and refurbishments using state-of-the-art design and

construction methods to bring SWP's hydroelectric units to first in class levels of energy efficiency. The A.D. Edmonston Pumping Plant and Edward Hyatt Powerplant are two SWP facilities where major energy efficiency projects have been undertaken with some still in progress.

A. D. Edmonston Pumping Plant is the largest plant in the SWP, with 14 pumps, each rated at 80,000 horsepower, pumping water from the California Aqueduct over Tehachapi Mountains into Southern California. Based upon the SWP's metered data, averaged over years 2002 through 2006, with increases in efficiencies measured against each units' original efficiency levels, DWR's refurbishment of Edmonston Unit No. 6 reduces the SWP pumpload requirement by 4,020 MWh annually. Together with upgrades to Edmonston Units No. 1, 2, and 3, by 2011, the SWP pumpload requirement at Edmonston will be reduced by an estimated 40,000 MWh annually.

The SWP's largest generation resource is the Edward Hyatt Powerplant, an underground, hydroelectric, pumping-generating facility constructed in the bedrock below Lake Oroville. DWR developed the Hyatt Powerplant modernization program to increase unit efficiency in the generation mode and reduce power consumption in the pump mode. All six of Hyatt's units have been upgraded using state-of-the-art model design technologies, manufacturing techniques, and materials. DWR's refurbishment of Hyatt Unit Nos. 1 through 6 represents an estimated annual energy savings of 132,000 MWh annually.

DWR will continue its role as the State's third largest generator of clean hydropower. DWR is currently investigating ownership interest and contractual agreements to not only replace its resources provided by coal generation, but also to reduce its use of fossil fuels. This can be accomplished with a combination of cleaner, more efficient resources, including renewables, and improvements to the SWP system. DWR's membership in the CCAR, as well as the ARB's reporting regulations which integrate and expand upon the CCAR's standards, will provide a consistent and transparent reporting mechanism of DWR's CO2 emissions and its progress in meeting California's GHG emissions reductions goals.

**Emissions Reduction Goals:**

The electric power needed to operate the SWP comes from its own and jointly developed hydroelectric facilities, long-term and short-term purchase agreements, and a 30 year agreement with Nevada Power Company (NPC). Since July 25, 1983, DWR has received up to 235 MW from Unit 4, one of four units at the Reid Gardner coal-fired generation facility located in Moapa, Nevada. In May 2007, DWR formally notified the plant's owner that DWR will not renew this agreement, which expires on July 25, 2013. DWR intends to replace this coal based energy with a combination of cleaner, more efficient resources, improvements to the SWP system and renewable energy resources. Emissions reductions associated with this transition, which includes replacement energy derived from combined cycle gas turbine (CCGT) technology -- using the CEC's forecasted rate of emissions in 2020, is on the order of 30 to 35 percent of the SWP's power portfolio emissions. Consequently, DWR anticipates meeting the AB 32 goal of reducing its carbon emissions to 1990 levels at least six years earlier than the mandated reduction target for California in 2020.

# 13. ARTICLE 18

# 13. ARTICLE 18

## 13.1 INTRODUCTION

The following responses address comments on Article 18 of the long-term water supply contracts, pre- and post- Monterey Amendment. Topics covered here include: the Department's analysis of Article 18(b) invocation; the delivery of Article 21 water after Article 18(b) invocation; environmental impacts under Article 18(b) Alternatives; the Department's disclosure of reasons for eliminating Article 18(b); the perception on the part of some comments that all annual SWP deliveries under Article 18(b) invocation would be held to approximately 2 million AF; clarification of the concept of SWP yield; calculation of contractor's individual supply under Article 18(a); post-Monterey reliability of Table A water to M&I contractors and effect on drought protection to M&I contractors during dry years; claims of increased growth opportunities to M&I contractors during above normal to wet years due to the Monterey Amendment; and areas of origin demands. This master response is organized by the following subtopics:

13.2.1 SWP Development and Article 18
13.2.2 Invocation of Article 18(b)
13.2.3 Impacts of Alternatives
13.2.4 Article 18(a) and Reliability of Contractor Deliveries
13.2.5 Area of Origin Demands

Some of the comments received on the DEIR's analysis of Article 18 are fully addressed by this master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Section 13.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include references to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This master response addresses the following comments: 6-2, 6-3, 6-16, 16-3, 16-16, 16-19, 16-20, 16-34, 16-38, 16-41, 16-44, 17-1, 17-4, 17-7, 17-8, 17-12, 19-1, 19-2, 19-5, 21-10, 21-11, 21-13, 21-54, 26-2, 30-4, 30-16, 30-22, 30-23, 30-26, 30-53, 30-55, 30-68, 30-115, 30-151, 31-4, 35-5, 36-7, 36-8, 36-9, 36-10, 64-7, 64-27, 64-28, 65-5, 65-18, 65-19, 65-22, 67-1, and 67-3.

## 13.2 MASTER RESPONSE

### Summary

Prior to the Monterey Amendment, the long-term water supply contracts contained provisions specifying how the Department could curtail water to contractors during a temporary or permanent shortage of water supply. Article 18(a) specified that reductions for agricultural use could not exceed 50 percent in any one year nor exceed an aggregate limit of 100 percent in any series of seven consecutive years before reducing water deliveries for other purposes and that if additional reductions were necessary, they were to be allocated proportionately among all contractors. In the event the Department declared a permanent shortage under Article 18(b),

the Department would proportionally reduce Table A amounts so that the sum of the Table A amounts equaled the reduced SWP minimum yield.

The original 1960's plan for the SWP was to build storage dams and reservoirs upstream of the Sacramento-San Joaquin Delta that, in conjunction with facilities to transport water across the Delta, could develop sufficient water to deliver a “minimum SWP yield” to all contractors, year-in and year-out except for certain few and infrequent critically dry years. Through the 1980's, with rising contractor demands and increased environmental needs, it became more difficult for the SWP to deliver the maximum contract water supplies. In addition, the drought of 1987 to1992 sharply reduced SWP water supplies. During 1987, 1988, and 1989, supplies remained low through the early part of the year, and the Department initially applied the Article 18(a) shortage provision and imposed allocation reductions on deliveries for agricultural use. From 1990 to 1993, SWP water supplies were inadequate to meet contractors’ requests and the Department imposed reductions in contractors’ allocations in accordance with the provisions of Article 18(a).

The limited supplies available during the drought highlighted the differences between the views of the Department, M&I contractors, and agricultural contractors on interpretation and application of SWP contract shortage provisions. Some agricultural contractors argued that the Department must invoke Article 18(b) to eliminate the SWP allocation disparities or face the possibility of judicially mandated Article 18(b) invocation. If all contractors’ Table A amounts were reduced proportionally as would be required under Article 18(b), the amount of water to be pumped as Table A water would be reduced. However, the total amount of water pumped would remain about the same. In some years, due to higher flows in the Delta, more water would be available for pumping beyond the amounts needed to meet the reduced Table A amounts. This extra water would then go first to agricultural uses and groundwater replenishment under Article 21. The M&I contractors were concerned that the overall result of implementing an 18(b) reduction in Table A amounts and following the then-existing contract provisions on extra water availability would be a shift in water deliveries from urban users to agricultural users. While the water shift would favor agricultural users, the majority of costs would still be borne by the urban users. As a result, some urban contractors might file a lawsuit challenging a decision by the Department to invoke Article 18(b).

They thought that negotiations among the contractors and the Department would be more likely to result in an acceptable balancing of the interests involved than would a litigated outcome. There was also concern that if some contractors went to court over this issue, all contractors and the Department would incur heavy litigation costs for several years and then finally sit down to settlement negotiations. In order to resolve these disagreements out of court, the Department and representatives of both the agricultural and the M&I contractors began mediated negotiations. Soon after negotiations began, the parties determined that the water allocation problem could not be addressed as a single issue. The parties adopted a broader approach to address water allocation and a number of other interrelated issues pertaining to the management and financing of the SWP. In 1994, the Department and SWP contractor representatives agreed to a set of 14 principles (called the Monterey Agreement) to modify the long-term water supply contracts and in 1995/1996 executed the Monterey Amendment which implemented most of the principles. The EIR on the Monterey Agreement prepared by the Central Coast Water Agency was challenged and in 2000, the court in *PCL v. DWR* found that the Department should have been the lead agency and that the EIR was inadequate because it failed to analyze the invocation of Article 18(b) as a no project alternative.

The Monterey Amendment revised Article 18(a) so that whenever the supply of Table A water is less than the total of all contractors’ requests, the available supply of Table A water is allocated among all contractors in proportion to each contractor’s annual Table A amount. The Monterey

Amendment also eliminated Article 18(b). The reason for eliminating Article 18(b) is not described in the Monterey Agreement. However, once the agriculture first shortage provision was eliminated, it no longer mattered whether a shortage was a temporary one or a permanent one, since the allocation of the available supply would be the same in either situation.

In this EIR, invocation of Article 18(b) is not part of the proposed project, but is a court-ordered no project alternative. Under CEQA the purpose of the no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the project. The no project alternative must discuss what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans, and consistent with the available infrastructure and community services. The SWP has been operated for over 12 years since 1996 pursuant to long-term water supply contracts that include the Monterey Amendment. Four versions of the no project alternative are examined in the DEIR because there is disagreement and uncertainty over how to characterize continued operation of the SWP in accordance with the pre-Monterey long-term water supply contracts. These versions include two that involve invocation of Article 18(b) as required by the court in *PCL v. DWR*.

Under these two Article 18(b) no project alternatives, the sum of the Table A amounts would be reduced from 4.23 to 1.9 million AF. The only difference between CNPA3 and CNPA4 is how Article 21 water is allocated. In years when available water supplies exceed 1.9 million AF, Article 21 water (or "surplus water") would be allocated proportional to contractor's Table A amounts for CNPA3. For CNPA4, Article 21 water was allocated based on the pre-Monterey preference to agricultural use and groundwater replenishment. The analysis of the Article 18(b) scenarios shows several theoretical examples of what might have occurred if Article 18(b) had been invoked and Table A amounts (i.e. the contractual firm yield of the SWP) were decreased.

However, the Department now considers the probability of an amount of water being delivered annually rather than firm yield when discussing reliability of SWP water supplies. Reducing the Table A amounts through invocation of Article 18(b) is not relevant in calculating total available SWP water supply, given current day operations and planning based on water delivery probability curves, and given the fact that all contractor shortages are allocated on a pro-rata basis under the provisions of Article 18(a) of the Monterey Amendment. The Department has determined that invocation of Article 18(b) would not protect the Delta nor would it be an effective way to make local government aware of the variability and limitations of SWP water supply. As discussed in FEIR Subsection 7.2.2.1.3, the Department considers current regulatory processes and evolving Delta constraints to be the appropriate means of protecting the Delta and other environmental resources. As discussed in FEIR Subsections 9.2.4 and 9.2.6, the Department considers processes such as the Reliability Report (which addresses the impact of climate change and Delta pumping restrictions) and other means of urban water management planning to be a more effective means of making local government aware of the variability and limitations of the SWP water supply. See FEIR Subsection 13.2.2.3.

Several suggest that elimination of Article 18(b) removed a provision that could empower the Department to reduce project Table A amounts to reflect the "safe yield" of the project and that Article 18(b), and the concept of safe or firm yield would protect the Delta or to make local government aware of the limitations of SWP water supply. Like most other surface water supplies, SWP water supplies fluctuate, so in some years more water may be available and in other years less water may be available. The Department has determined that invocation of Article 18(b) and returning to the application of the concept of safe or firm yield in determining the amount of Table A that can be reliably allocated each year, except in extreme droughts, is not a reasonable way to protect the Delta or to make local government aware of the variability

and limitations of SWP water supply. Such an action would not alter Delta exports, would not alter water supply reliability, nor would it alter the total amount of SWP water allocated to contractors. The action would decrease Table A allocations and commensurately increase Article 21 allocations, both as scheduled surplus and as unscheduled (interruptible) supplies. See FEIR Subsection 13.2.2.3.

Several comments have suggested that the elimination of the Article 18(a) agricultural shortage provision reduces drought protection to urban areas because it decreases the reliability of Table A water to M&I contractors. The Department agrees that the pre-Monterey provision provided more water to M&I contractors in drier years than under the Monterey Amendment. The Monterey Amendment provided for an allocation prorated on all contractors' Table A amounts, which would provide less water to M&I contractors in drier years due to the elimination of the agricultural shortage provision. However, the Monterey Agreement was a negotiated agreement that included a number of other provisions that benefited M&I contractors, including reduction of agricultural Table A amounts by 45,000 AF, the transfer to M&I contractors of 130,000 AF of Table A amounts, equal priority for Article 21 water, and the water supply management practices.

Other comments state that elimination of the agricultural shortage provision of the Table A transfers will increase urban use and reliance on SWP water and request that this impact be disclosed. The Monterey Amendment has facilitated certain Table A transfers and the Department agrees that the permanent Table A transfers under the Monterey Amendment could be growth inducing. Some of the water supply management practices could also be growth inducing. These results are consistent with the objective of the Monterey Amendment to "facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies." However, the Department notes that prior to the Monterey Amendment, the Department implemented various water management practices through SWP contract amendments or separate agreements on a case-by-case basis. The growth-inducing effects of the proposed project are discussed in Chapters 8 of the DEIR and the FEIR.

Several comments expressed concern that the Monterey Amendment might reduce the water available for area of origin users or for other water users with a higher priority or more senior rights. The Department operates the SWP subject to existing legal constraints for area of origin rights. The Monterey Amendment cannot and does not change these legal constraints, nor does it change hydrologic conditions or regulatory requirements in effect at the time of export, including applicable permits and constraints to protect water quality and listed fish species. See FEIR Subsection 5.2.1.2.

### 13.2.1 SWP Development and Article 18

Comments addressed in this subsection include: 6-3, 6-16, 17-1, 17-7, 17-8, 21-10, 30-22, 30-23, 30-26, 30-53, 30-68, 67-1, and 67-3.

Several comments state that the DEIR needs to adequately disclose, or explain better, why the Department and the SWP contractors wanted to eliminate Article 18(b). Article 18 is described in the DEIR, in Chapter 2, Subsection 2.5.3, and in Chapter 4, Subsection 4.4.1. Changes in deliveries of Table A and Article 21 water resulting from the changes to Article 18 from proposed project are discussed in DEIR Chapter 6, Section 6.4 and in Chapter 8. Two variations of the court-ordered Article 18(b) no project alternative are described in DEIR Chapter 11.

The history below, which is from the DEIR, gives background on Article 18(a) and Article 18(b) and reasons why Article 18(a) was changed and Article 18(b) was eliminated. For CEQA purposes, what is critical is whether the proposed project would have a potentially significant impact on the environment. There may be many reasons underlying a decision to carry out an activity and different decision-makers may have different reasons for making their decisions. CEQA requires full disclosure of the environmental impacts of carrying out the activity regardless of the reasons underlying the decision. To the extent the underlying basis and rationale are important for purposes of this EIR they are incorporated into the Project Objectives which are found on pages 4-1 through 4-2 of the DEIR. The background necessary to understand the proposed project and the objectives is also discussed in Chapters 2, 3 and 4 of the DEIR and summarized below. See also FEIR Subsection 4.21.3 on the scope of the project.

As noted in DEIR Subsection 2.5.3, the long-term water supply contracts contained provisions specifying how the Department could curtail water to contractors during a temporary shortage of water supply. A temporary water supply shortage was defined in Article 18(a) as one due to drought or other temporary cause, with the result that such supply was less than the total of all contractors' requests for Table A water for that year. Prior to the Monterey Amendment, Article 18(a) specified that agricultural contractors would take shortages in advance of M&I contractors. Reductions for agricultural use could not exceed 50 percent in any one year nor exceed an aggregate limit of 100 percent in any series of seven consecutive years before reducing water deliveries for other purposes. If additional reductions were necessary, Article 18(a) stated that further reductions were to be allocated proportionately among all contractors.

Prior to the Monterey Amendment, Article 18(b) of the long-term water supply contract specified how the Department could reduce contractors' Table A amounts in the event of a permanent shortage of water supply due to a reduction in the minimum SWP yield, regardless of preventive or remedial actions taken by the Department, including lack of construction of sufficient additional conservation facilities. In the event the Department declared a permanent shortage under Article 18(b), the Department would proportionally reduce Table A amounts so that the sum of the Table A amounts equaled the reduced SWP minimum yield.

As noted in DEIR Chapter 3, the original 1960's plan for the SWP was to build storage dams and reservoirs upstream of the Sacramento-San Joaquin Delta that, in conjunction with facilities to transport water across the Delta, could develop sufficient water to deliver a "minimum SWP yield" to all contractors, year-in and year-out. Only during certain few and infrequent critically dry years did the original plan expect deliveries to be less than the minimum SWP yield of approximately 4.2 million AF, in which case agricultural contractors would see some supply reductions. During the 1950's and 1960's when the SWP was in the formulation stage, the Department conducted operations studies to determine drought-period supplies of the SWP facilities, utilizing the historical water supply to the Delta for the critical drought period 1928 to 1934. By projecting future watershed uses and utilizing maximum Table A amounts, the Department determined that reductions to agricultural deliveries would aggregate 100 percent over a seven-year period.

As contractor demand increased, the expectation was that additional planned facilities would be built to meet the projected demand. SWP development unfolded substantially as planned through the 1960's and early 1970's. Major components of the SWP were built and put into service and the contractors took increasing quantities of water. Circumstances began to change in the 1970's. Various concerns prevented the development of some components of the SWP and more stringent environmental standards in the Delta limited the amount of water that could be diverted at the Banks Pumping Plant and reduced the capability to deliver the

maximum water supply for which the SWP conveyance facilities had been designed and constructed to deliver. Since the mid-1970s, the Department has added or modified conveyance facilities to the SWP (e.g. the Coastal Branch Aqueduct and the California Aqueduct East Branch enlargement and extension) and increased Banks Pumping Plant capacity, but otherwise the SWP's facilities have remained essentially unchanged.

During the 1980's and early 1990's the Department did not always allocate water among the contractors based solely on Table A amounts. For example, some contractors did not yet have a conveyance connection to the SWP, and many contractors did not request their full Table A amounts. Further, during this time, there was controversy among the Department, agricultural contractors, and M&I contractors regarding whether water should be allocated among contractors based on contractor requests or their Table A amounts. In the shortage years during this period, the Department reduced deliveries of water pursuant to Article 18(a) deficiency percentages, but did so in several years based on contractor requests, and in 1994 (the year the Monterey Agreement was negotiated) based on Table A amounts.

Through the 1980's, with rising contractor demands and increased environmental needs, it became more difficult for the SWP to deliver the maximum contract water supplies. In addition, the drought of 1987 to1992 sharply reduced SWP water supplies. During 1987, 1988, and 1989, supplies remained low through the early part of the year, and the Department initially applied the Article 18(a) shortage provision and imposed allocation reductions on deliveries for agricultural use. However, in each of these years, the water supply situation improved and the Department was eventually able to meet all contractors' requests, due to a combination of spring storms, reductions by some contractors of their requests, and the Department's purchase of water from Yuba County WA to supplement SWP water supplies. By November 12, 1987 the Department recognized the need for discussion with the contractors to address the reduction of water supplies and issued Water Service Contractors Council Memorandum No. 1878. In this memorandum, the Department compared the merits of four interpretations to the allocation procedure and then met with the SWP contractors to try to resolve the issue.

In 1990, SWP water supplies in the early part of the year were inadequate to meet contractors' requests and remained that way throughout the year. The Department imposed reductions in contractors' allocations in accordance with the provisions of Article 18(a), reducing allocations to agricultural contractors by 50 percent, before the M&I contractors' deliveries were reduced. In 1991, SWP supplies were extremely low and additional reductions beyond the initial cuts for agricultural contractors were required, with the agricultural contractors allocated no water from the SWP and the M&I contractors allocated 30 percent of their requests. Contractors are contractually required to make payments for water based on the annual water amounts listed in Table A of their water supply contracts, whether or not they receive water. In 1992 the Department reduced allocations to both agricultural and M&I contractors to 45 percent of their requests.

The limited supplies available during the drought highlighted the differences between the views of the Department, M&I contractors, and agricultural contractors on interpretation and application of SWP contract shortage provisions. Contractors who suffered large reductions in their water deliveries for agricultural use felt that they were receiving an unfair share of the drought-related allocation reductions partly because some planned components of the SWP had not been completed. Their argument was that if the Department had built all originally planned components of the SWP, the minimum yield would have been greater, and their share of drought-related allocation reductions would be less. In addition, M&I contractors disagreed with the Department's approach to Article 18(a)'s shortage allocations which allocated supply shortages on the basis of contractors' requests. The M&I contractors believed that the State

should allocate supplies on the basis of Table A amounts; they argued that their interpretation was consistent with the language of the water supply contract. They also felt that since SWP supply facility costs are allocated among contractors on the basis of Table A amounts, the Department should allocate their share of any supplies from those facilities based on Table A amounts.

Some agricultural contractors argued that the Department's invocation of Article 18(b) would protect their interests. They insisted that the Department must invoke Article 18(b) to eliminate the SWP allocation disparities or face the possibility of judicially mandated Article 18(b) invocation. The M&I contractors argued that Article 18(b) was only applicable after all of the originally planned SWP facilities were built and the SWP could still not achieve its planned minimum yield. In addition, M&I contractors emphasized that invocation of Article 18(b) was unnecessary due to CALFED's likely future supply improvements and other actions that would increase minimum SWP yield. Both the agricultural and M&I contractors threatened lawsuits over this issue.

In order to resolve these disagreements, the Department and representatives of both the agricultural and the M&I contractors, including the Central Coast WA (a joint powers authority representing two contractors, San Luis Obispo County FC&WCD and Santa Barbara County FC&WCD), began mediated negotiations. Soon after negotiations began, the parties determined that the water allocation problem could not be addressed as a single issue. The parties adopted a broader approach to address water allocation and a number of other interrelated issues pertaining to the management and financing of the SWP. In 1994, the Department and SWP contractor representatives agreed to a set of 14 principles to modify the long-term water supply contracts. In 1995, an EIR was prepared on a proposed project to implement a negotiated set of principles called the Monterey Agreement which would modify the long-term SWP water supply contracts. Following certification of the EIR, the Department and the SWP contractors incorporated most of the principles into a contract amendment named the Monterey Amendment which was signed by all but two of the contractors in 1995 and 1996 and implemented in 1996.

The Monterey Amendment revised Article 18(a) so that whenever the supply of Table A water is less than the total of all contractors' requests, the available supply of Table A water is allocated among all contractors in proportion to each contractor's annual Table A amount. The Monterey Amendment also eliminated Article 18(b). The reasons for changes to the long-term water supply contracts, including the reason for eliminating Article 18(b), are not described in the Monterey Agreement. However, once the agriculture first shortage provision was eliminated, the invocation of Article 18(b) could no longer be argued to have the effect the protecting agricultural water users from excessive shortages. With the elimination of the agricultural first shortage provisions, it no longer mattered whether a shortage was a temporary one or a permanent one, since the allocation of the available supply would be the same in either situation.

The 1995 EIR on the Monterey Agreement prepared by the Central Coast Water Agency was challenged and in 2000, the court in *PCL v. DWR* found that the Department should have been the lead agency and that the EIR was inadequate because it failed to analyze the invocation of Article 18(b) as a no project alternative.

### 13.2.2 Invocation of Article 18(b)

Comments addressed in this subsection include: 6-3, 6-16, 16-3, 17-1, 17-7, 17-8, 17-12, 19-1, 19-2, 21-10, 21-54, 30-4, 30-16, 30-22, 30-23, 30-26, 30-27, 30-50, 30-55, 30-151, 31-4, 35-5, 36-9, 36-10, and 67-1.

Several comments ask the Department to elaborate on the implications and impacts of implementing an Article 18(b) invocation, or ask the Department to invoke Article 18(b) and provide more water to the environment.

#### 13.2.2.1 Analysis in the DEIR

Background

To understand the history behind Article 18(b), it is essential to recognize that the contracts before Monterey were products of negotiations between the Department and the SWP contractors, as is the Monterey Amendment. Decisions about Article 18(b) fit into the context of those earlier negotiations and the earlier balancing of interests in those negotiations. Further, the Department was concerned that whatever it did concerning Article 18(b), the action would probably be challenged in court.

As discussed in FEIR Subsection 13.2.1, some agricultural contractors wanted Article 18(b) invoked because they had been hurt by the complete cut off of water deliveries from the SWP in 1991 due to allocation of water supplies under Article 18(a). Article 18(a) provided a two tier system of reductions in water allocations if there was not enough water available from the project to meet all Table A demands. In the first tier, deliveries to agricultural contractors would be reduced up to 50 percent in any one year but no more than a total of 100 percent in any series of seven years. If the first tier cuts were not sufficient to match demands to available supply, then cuts under the second tier would proceed. In the second tier, deliveries to all contractors would be reduced in equal percentages of their Table A's.

In 1991, allocations to agricultural contractors were cut by 50 percent in the first tier of reductions. There was still not enough water available to meet demand, so cuts under the second tier proceeded with requests from all contractors reduced proportionally according to Table A. Allocations to all contractors were reduced by another 50 percent, but there was still not enough water to go around. The agricultural contractors were then at a zero percent allocation. Reductions to M&I contractors continued until they received only 30 percent of their Table A amounts.

The agricultural contractors believed that invoking Article 18(b) would reduce a future likelihood and hardship of receiving no water but still having large bills to pay. They believed that if all contractors' Table A amounts were reduced proportionally to a reduced estimate of minimum project yield, there would be less chance of being reduced to zero deliveries again. Accordingly, they threatened to sue the Department unless the Department invoked Article 18(b).

M&I contractors opposed invoking Article 18(b) because the proportional reductions in Table A amounts could have shifted the balance of water deliveries away from M&I contractors to agricultural contractors, first through Table A then under Article 21. Under Article 21 of the pre-Monterey Amendment contracts, contractors had rights to extra water, if water were available for pumping in the Delta above what was being pumped to meet Table A requests, in accordance with specified priorities. The first priority was to contractors for agricultural use and

groundwater replenishment. This extra water was known as surplus water, available either for scheduled delivery throughout the year, or on an unscheduled or interruptible basis. It is now just called Article 21 water. See FEIR Chapter 14 for further discussion on Article 21 water.

If all contractors' Table A amounts were reduced proportionally, the amount of water to be pumped as Table A water would be reduced. However, the total amount of water pumped would remain about the same. In some years, due to higher flows in the Delta, more water would be available for pumping beyond the amounts needed to meet the reduced Table A amounts. Under on interpretation of Article 18(b), this extra water would then go first to agricultural uses and groundwater replenishment under the pre-Monterey Amendment Article 21.

The M&I contractors were concerned that the overall result of implementing an Article 18(b) reduction in Table A amounts and following the then-existing contract provisions on Article 21 water availability would be a shift in water deliveries from urban users to agricultural users. While the water shift would favor agricultural users, the majority of costs would still be borne by the urban users. As a result, some urban contractors were likely to file a lawsuit challenging a decision by the Department to invoke Article 18(b).

The Department and the contractors thought that negotiations among the contractors and the Department would be more likely to result in an acceptable balancing of the interests involved than would a litigated outcome. There was also concern that if some contractors went to court over this issue, all contractors and the Department would incur heavy litigation costs for several years and then finally sit down to settlement negotiations. The decision to enter the mediated negotiations that led to the Monterey Agreement was a decision to enter negotiations directly rather than spending large sums on litigation before starting negotiations. As discussed in FEIR Subsection 13.2.1, as negotiations continued, it became obvious that the water allocation problem could not be addressed as a single issue and the parties agreed to open negotiations and not to limit the discussions to Article 18.

This background shows that invoking Article 18(b) would not have been a simple decision. Rather than deciding to invoke or not to invoke Article 18(b), the Director chose to enter negotiations.

## Article 18(b) Analysis is a No Project Alternative Analysis

Invocation of Article 18(b) is not part of the proposed project, but is a court-ordered no project alternative. Under CEQA "the purpose of the no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the project" and it must discuss "what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans, and consistent with the available infrastructure and community services" (CEQA Guidelines Section 15126.6(3)(C)). "When the project is a revision of an existing land use or regulatory plan, policy, or ongoing operation, the 'no project' alternative will be the continuation of that existing plan, policy or operation into the future" (CEQA Guidelines Section 15126.6(3)(A)). The 1995 EIR on the Monterey Agreement described the no project alternative to be the continued operation under the pre-Monterey contract without invocation of Article 18(b). The court in *PCL v. DWR* found the 1995 EIR on the Monterey Agreement inadequate because it did not include invocation of Article 18(b) as a no project alternative.

The SWP has been operated for over 12 years since 1996 pursuant to long-term water supply contracts that include the Monterey Amendment. Four versions of the no project alternative are

examined in the DEIR because there is disagreement and uncertainty over how to characterize continued operation of the SWP in accordance with the pre-Monterey long-term water supply contracts. They are described on pages 11-1 and 11-2 of the DEIR and include two versions that involve invocation of Article 18(b) as required by the court in *PCL v. DWR*. In addition to the four no-project alternatives, the Department also analyzed another alternative even though it did not meet most of the project objectives (Alternative 5), and considered other alternatives that were not analyzed because they did not meet the screening criteria listed on DEIR page 11-2. See Chapter 11 of both the DEIR and FEIR for more discussion on alternatives.

Basis for Article 18(b) Analysis

Several comments did not think the DEIR adequately described how the invocation of Article 18(b) would work or asked for further explanation. As described on DEIR pages 11-2 and 11-7, Article 18(b) of the pre-Monterey Amendment long-term water supply contracts would be invoked for CNPA3 and CNPA4 and the sum of the Table A amounts would be reduced from 4.23 to 1.9 million AF. The reduced total Table A amount was estimated based on the initial requirement that the SWP be able to deliver the sum of the Table A amounts in almost all years. It was estimated, and discussed with the EIR Committee's modeling subcommittee, that the SWP can deliver 1.9 million AF with its existing facilities and within the current regulatory framework as of 2003 in all but one year in the 73-year hydrologic record. See FEIR Subsection 6.3.2.2 for discussion of the EIR committee meetings and suggestions for CALSIM II and its use. Under these two alternatives none of the elements of the Monterey Amendment would be implemented. In years when available supplies are less than 1.9 million AF, water would be allocated in accordance with pre-Monterey Article 18(a) provisions for temporary shortages. In years when available supplies exceeded 1.9 million AF, surplus water would be delivered. The KFE property would remain in state ownership and a water bank would be developed as planned by the Department. The Settlement Agreement would not be implemented.

The only difference between CNPA3 and CNPA4 is how Article 21 water is allocated. In years when available water supplies exceeded 1.9 million AF, Article 21 water (or "surplus water") would be allocated proportional to contractor's Table A amounts for CNPA3. For CNPA4, Article 21 water was allocated based on the pre-Monterey Amendment preference to agricultural use and groundwater replenishment. Results are shown in DEIR Tables 11-3 and Table 11-4 on page 11-10.

The analysis of the Article 18(b) scenarios shows several theoretical examples of what might have occurred if Article 18(b) had been invoked and Table A amounts (i.e. the contractual firm yield of the SWP) were decreased. However, as noted in FEIR Subsection 13.2.2.3, for over a decade prior to the Monterey Amendment, SWP water supply decisions have not been based on the yield of the SWP but rather on the probability of delivering a predicted amount of Table A water.

### 13.2.2.2 Delivery of Article 21 Water in the Article 18(b) Analysis

Several comments have suggested that invocation of Article 18(b) should result in total annual SWP deliveries through Banks Pumping Plant of around 2 million AF, and that the extra unused water could be used as additional water for environmental purposes. The comments point to the *PCL v. DWR* decision as a reason for the DEIR to describe the Article 18(b) alternative as one which reduces the Table A amounts to what would be a current firm yield and does not include deliveries of Article 21 water.

As stated in FEIR Subsection 4.2.2.2, the court in *PCL v. DWR* recognized that the Department has a statewide perspective and with its expertise on the statewide impacts may choose to address issues raised in the 1995 EIR in a completely different and more comprehensive manner. It did not tell the Department how to address or analyze those issues. The Department does not agree with the claims that it should not deliver SWP water above Article 18(b) Table A amounts, if Article 18(b) were to be invoked. With the invocation of Article 18(b), the Department assumed that the Department and the contractors would have tried to make up the difference between invoked-Article 18(b) Table A amounts and the planned yield of the SWP. This determination was based on the language of the long-term water supply contracts and history of the period prior to 1995 when the Monterey Agreement was signed. The following information clarifies the reasoning behind this determination.

The DEIR assumed that with the invocation of Article 18(b) all other terms of the long-term water supply contracts would stay the same. This would mean that the Department would continue deliveries above the reduced Table A amounts and deliver additional water, including Article 21 water, when such water was available. Under the contracts, Article 21 water is not extra water that can be given away for other purposes (see FEIR Chapter 14 for more on Article 21).

In the fall of 1987 in Water Service Contractor's Water Memorandum No. 1878, the Department compared the merit of four interpretations of the allocation procedure under Article 18(b). None of these interpretations considered a cap on water deliveries above Article 18(b) Table A amounts. To cap such water deliveries would mean that the Department and the contractors would have had to jointly agree to eliminate Article 21 – an unreasonable and unlikely occurrence, considering the draconian effect such a decision would have on SWP water supplies. Some comments suggest that the Department could have eliminated Article 21 deliveries without agreement from the SWP contractors. The Department, however, concluded that its long-term water supply contracts with the 29 SWP contractors would not support such an arbitrary action that would severely restrict the export of water from the Delta that could otherwise be pumped according to water rights for the SWP, subject to environmental and other regulatory requirements.

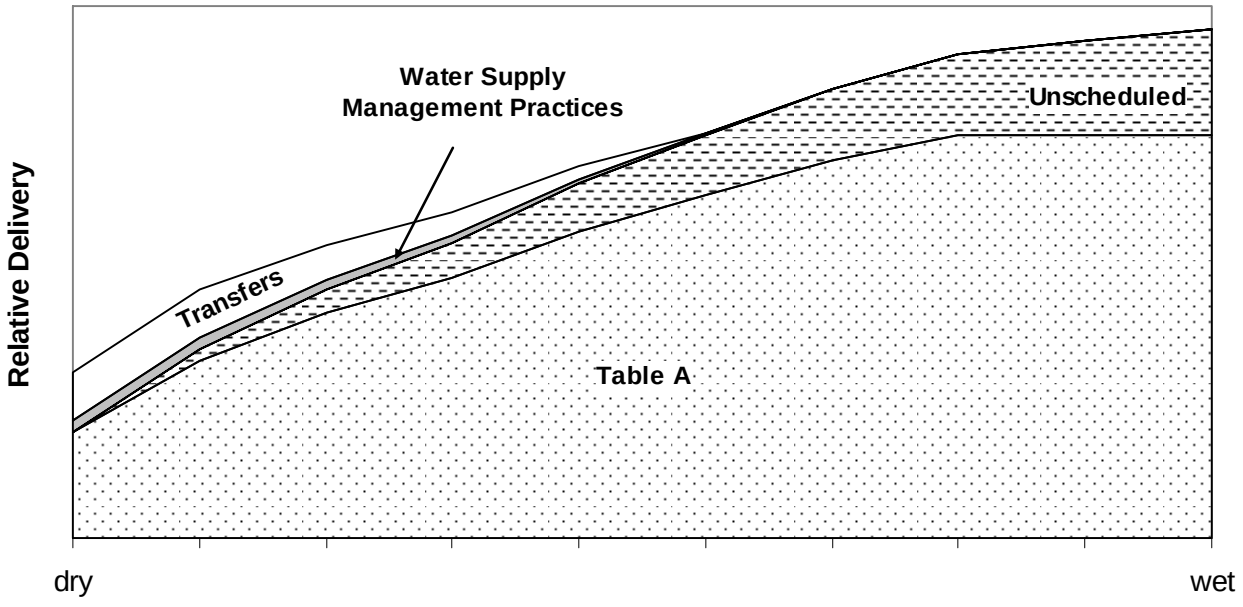
The Department concluded that it had an obligation, under the terms of the long-term water supply contracts, to continue deliveries above the reduced Table amounts and deliver additional water as Article 21 water to its contractors. This approach is consistent with the Department's obligations under Article 6 of the contracts to make "all reasonable efforts consistent with sound fiscal policies, reasonable construction schedules, and proper operating procedures to complete the project facilities necessary for the delivery of project water" to the contractors. The history, as found in the Memorandum, and the water supply contract provisions, supports the approach taken in the DEIR -- to utilize the capability of Banks Pumping Plant for deliveries of available water above Table A amounts as scheduled surplus and intermittent surplus water to contractors, after operating the SWP in compliance with State and federal regulatory permits and other requirements, in effect at the time of pumping, that provide protection for the Delta aquatic environment, including for water quality, listed species and other aquatic resources. See FEIR Subsection 7.2.2.1.3 and FEIR Figure 13-2.

This approach is also supported by the way in which the SWP is operated. As discussed in the DEIR Subsection 6.2.1, nearly all of the SWP's water supply is exported from the Delta, and is comprised of unregulated Delta inflow and releases from Oroville Reservoir, the primary SWP conservation facility located upstream of the Delta. Conversely, about 97 percent of the demand for SWP water is located downstream of the Delta. The Department's ability to export water from the Delta and convey water from Lake Oroville to contractors south of the Delta is

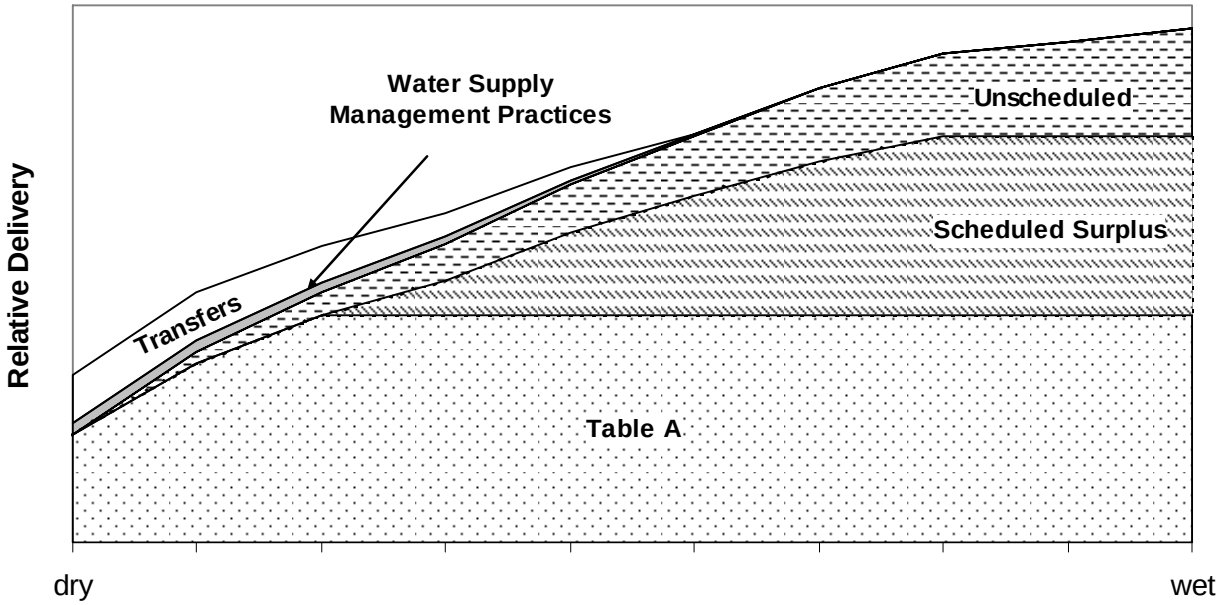
constrained by the physical characteristics of the Delta, environmental regulations, and the capacity and operational constraints of SWP storage and conveyance facilities. Within these constraints, the SWP is operated to optimize the capture of water in the Delta, maximize the usable supply released to the Delta from Oroville storage, and maximize the intake allotment of Clifton Court Forebay at the maximum permitted rate as much of the time as possible to meet SWP and contractor demands. As long as hydrologic and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. The diversion of water into Clifton Court Forebay for SWP pumping at Banks Pumping Plant under Department water rights is controlled by SWRCB D-1641, and permits issued by the Corps under Section 10 of the Rivers and Harbors Act, applicable Biological Opinions, and other regulatory constraints. See FEIR Subsection 14.2.2.

Conceptual FEIR Figures 13-1 and 13-2 show the various water supplies and water supply management practices (Articles 54, 55, 56) that can factor into total water deliveries to contractors in various water-year types. FEIR Figure 13-1 shows possible water deliveries without invocation of Article 18(b), while FEIR Figure 13-2 shows water deliveries with invocation of Article 18(b) (Note: this schematic is for illustration and clarification purposes only; it is not an alternative in the DEIR). Even if Article 18(b) is invoked, the contractors can request other types of water in addition to their Table A amounts. Under the Monterey Amendment for example, groundwater withdrawals of water previously banked outside their service area and flexible storage withdrawals are means for supplementing Table A water deliveries. This water supply is in addition to what existed prior to the Monterey Amendment, when contractors could have still asked for Article 21 water, requested to move water for storage outside their service area, acquired non-SWP water supplies (for example, from north of the Delta), carried over Table A water under Article 12(e) on an annual basis if it met the contract provisions, requested delivery of transfer water, and other options for managing their water supplies (see DEIR Section 2.5).

**FEIR Figure 13-1**
**Deliveries to SWP Contractors, Proposed Project**



**FEIR Figure 13-2**
**Deliveries to SWP Contractors After Invocation of Article 18(b)**




Therefore, Comments 21-10 and 30-23 are correct when they state that the DEIR suggests in several places that, under most circumstances, there would be no effective difference between invocation of Article 18(b) and operations under the Monterey Amendments in terms of the amount of water delivered. As discussed previously in this subsection, this statement is true since the Department optimizes pumping through Banks Pumping Plant and subsequent deliveries to the contractors under its permits and regulations. One thing that does change, however, is the classification of water. With the invocation of Article 18(b), less water classified as Table A would be delivered while additional water classified as Article 21 water would be delivered to make up the difference. For further discussion on water types, see FEIR Subsection 14.2.3.

During the preparation of the DEIR, and in trying to determine how to comply with the court's order on Article 18(b), the Department reviewed various ways to invoke Article 18(b) including invocation of Article 18(b) with no delivery of Article 21 water to SWP contractors. The invocation of Article 18(b) without Article 21 deliveries was not considered in detail in the DEIR because the Department concluded that it would not meet any of the objectives of the Monterey Amendment and because it would be in conflict with the basic terms of the long-term water supply contracts. See discussion on pages 11-5 and 11-6 in the DEIR. The Department also determined, after considerable discussion, that it would not have invoked Article 18(b) in this manner at any time in the past, nor into the near-term future. However, in response to comments, the Department has developed an analysis of the effects of operating the SWP with Article 18(b) invoked and with limited or no Article 21 water delivered to SWP contractors. Although the Department believes that Article 18(b) would not have been invoked in this way, nevertheless, this analysis provides additional information to the public and to decision-makers on the effects of not delivering water to SWP contractors that would otherwise be available under Article 21. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3.

### 13.2.2.3 Current Delivery Probability in Comparison to Past Firm Yield

In responding to the comments applicable to Article 18, the Department here clarifies that Table A amounts are *not* used in the annual calculation of total available SWP water supply, but instead are used in the allocation of the available SWP water supply among the contractors. Some of the comments on the Article 18(b) invocation alternatives incorrectly assume that the Department makes use of the planned SWP firm yield in making decisions of available SWP water supply, or that local planning agencies responsible for growth decisions incorrectly use the planned SWP firm yield in making water planning decisions.

As noted in DEIR Section 2.5.1, the total of maximum Table A amounts was originally important to the SWP because this number was intended to be the firm yield of the SWP. Because of the recognition that some anticipated facilities have not been built and that the reliability of SWP water supplies fluctuates for many reasons, including physical and regulatory causes, the Department now considers the probability of an amount of water being delivered annually rather than firm yield when discussing reliability of SWP water supplies. As a result of this water delivery probability procedure, Table A amounts now serve primarily as a way of allocating supply shortages and surplus among the contractors and as a way of allocating costs of the SWP. Reducing the Table A amounts through invocation of Article 18(b) is not relevant in calculating total available SWP water supply, given current day operations and planning based on water delivery probability curves, and given the fact that all contractor shortages are allocated in proportion to Table A amounts under the provisions of Article 18(a) of the Monterey Amendment.

The Department uses probability curves that show the likelihood of water deliveries by the SWP in any year type given a range of historical hydrologic events. Oroville reservoir end-of-water-year (September) storage “targets” are calculated based on a formula that assumes drawdown of the reservoir during a six-year drought (two droughts from 1928 to 1934 and 1987 to 1992 have occurred in California's recent past). The Department's objective in formulating and using this process is also to ensure that sufficient amount of reservoir storage for the following year is maintained and next year's requirement to protect water quality in the Delta will be met.

Currently, an initial Table A allocation on December 1 of each year is determined with a 90 percent probability that such allocation can be delivered by the SWP during the following year. The initial Table A allocation is a conservative estimate, but during the winter and spring of each year, as storms move in off the Pacific and new snow surveys and runoff assessments occur, the allocation is generally increased. The Department and the contractors have considered different levels of risk in determining the total available SWP supply to be delivered in a certain year. For example, the Department and the contractors may agree on a 99 percent exceedance level (i.e. a 99 percent chance of being met) for the December 1 Table A allocation. If a contractor is allocated Table A water based on a 99 percent exceedance level, there is little risk that such supply will not be available (only a 1 percent chance of not occurring). For a 90 percent exceedance level, there is a slight increased risk that such supply will not be available (i.e. a 10 percent chance of not occurring). Thus the Department estimates the probability of the water supply that can be delivered each year, and updates that information and communicates it to the contractors on a frequent basis as hydrologic conditions change. The water supply contracts do not dictate the degree of risk that the SWP and contractors will accept for their SWP water supply, nor how the Department should operate the entire system in meeting that supply (for more on the Department’s determination of total Table A water supply see DEIR Subsection 6.2.3; for more on the history of the Department’s determination of water supply, see the Department’s Bulletin 132 series, specifically Bulletin 132-90, page 86; Bulletin 132-93, page 27; and Bulletin 132-94, page 27).

As a result of this water delivery probability procedure, Table A amounts now serve primarily as a way of allocating supply shortages and surplus among the contractors and as a way of allocating costs of the SWP. Reducing the Table A amounts through invocation of Article 18(b) is not relevant in calculating total available SWP water supply, given current day operations and planning based on water delivery probability curves, and given the fact that all contractor shortages are allocated on a pro-rata basis under the provisions of Article 18(a) of the Monterey Amendment.

Comment 6-16 specifically asks why the allocation of certain SWP costs, water shortages, and surplus among the contractors cannot be accomplished with a reduction in Table A amounts through invocation of Article 18(b). It is possible that with an invocation of Article 18(b), certain SWP costs, water shortages and surplus water could have been allocated among the contractors. For example, under a contract amendment, the Department could allocate the costs for constructing, maintaining, and operating the existing SWP facilities under a decreased total Table A amount as noted in the comment. However, the DEIR recognizes that the Monterey Agreement and the Monterey Amendment were the result of negotiations, and provides a description of the process that led to the proposed project. See DEIR Chapter 3 for the history on Article 18(b). See also FEIR Subsection 5.2.3.1. Although it is possible that the negotiators of the Monterey Agreement could have considered invocation of Article 18(b), they chose a different approach. See the discussion in FEIR Subsections 13.2.2.1 and 13.2.4.1. The invocation of Article 18(b) is not part of the proposed project; however, the Department did analyze alternatives with Article 18(b) invoked. CNPA3 and CNPA4 are two no project alternatives that show how implementation of Article 18(b) might affect the contractors.

Other comments suggest the elimination of Article 18(b) removed a provision that could empower the Department to reduce project Table A amounts to reflect the “safe yield” of the project and that Article 18(b), and the concept of safe or firm yield would protect the Delta or to make local government aware of the limitations of SWP water supply. Like most other surface water supplies, SWP water supplies fluctuate, so in some years more water may be available and in other years less water may be available. The Department has determined that invocation of Article 18(b) and returning to the application of the concept of safe or firm yield in determining the amount of Table A that can be reliably allocated each year, except in extreme droughts, is not a reasonable way to protect the Delta or to make local government aware of the variability and limitations of SWP water supply. Such an action would not alter Delta exports, would not alter water supply reliability, nor would it alter the total amount of SWP water allocated to contractors. The action would decrease Table A allocations and commensurately increase Article 21 allocations, both as scheduled surplus and as unscheduled (interruptible) supplies.

As discussed in FEIR Chapter 7, Subsection 7.2.2.1.3, the Department considers current regulatory processes and evolving Delta constraints to be the appropriate means of protecting the Delta and other environmental resources. As discussed in FEIR Chapter 9, Subsections 9.2.4 and 9.2.6, the Department considers processes such as the Reliability Report (which addresses the impact of climate change and Delta pumping restrictions) and other means of urban water management planning to be a more effective means of making local government aware of the variability and limitations of the SWP water supply.

### 13.2.3 Impacts of Alternatives

Comments addressed in this subsection include: 6-3, 19-1, 31-4, 64-28, and 65-5.

Several comments did not think the DEIR adequately addresses the environmental impacts of invoking Article 18(b). Table 11-23 of the DEIR shows the direct environmental impacts of all

alternatives to the project. The table shows that the only significant direct impact under the two no project alternatives with Article 18(b) invoked (CNPA3 and CNPA4) would be impacts on environmental resources in the San Joaquin Valley portion of Kern County. These impacts would not be due to invoking Article 18(b), but due to a State-operated KFE that is included as part of these alternatives.

Comments suggest that the discussion of Article 18 should address the impact of the Wanger decision. This decision is discussed in FEIR Chapter 7, Subsection 7.2.2.1. Whether the SWP is operating under the proposed project or any alternative, it would have to comply with all environmental standards, including the ones established by the Wanger decision and the subsequent Biological Opinions. The analyses regarding the impact of different alternatives are for comparative purposes not to show absolute values. See FEIR Subsections 6.3.2.1 and 6.3.2.3. The result of more stringent environmental standards will be reduced deliveries during all year types for all alternatives.

### 13.2.4 Article 18(a) and Reliability of Contractor Deliveries

Comments addressed in this subsection include: 21-11, 26-2, 30-26, 30-53, 30-115, 35-5, 36-7, 36-8, 64-27, 65-5, 65-18, 65-19, 65-22, and 67-3.

#### 13.2.4.1 Effect on Drought Protection

Several comments have suggested that the elimination of the Article 18(a) agricultural shortage provision reduces drought protection to urban areas because it decreases the reliability of Table A water to M&I contractors. Some comments claim that the Monterey Amendment decreases SWP water supplies for urban areas by over 400,000 AF in certain dry years. Other comments have also expressed concern that the Monterey Amendment will result in “drought or demand hardening.”

<u>Reduced Drought Protection for M&I contractors</u>

The Monterey Amendment would result in an increase in average annual deliveries under 2020 conditions to M&I contractors of about 26,000 AF compared to the baseline (DEIR, Table 6-25). The increase is primarily due to the provision of the Monterey Amendment that enables the transfer of Table A amounts from agricultural to M&I contractors. The Monterey Amendment would result in a reduction in average annual deliveries under 2020 conditions to M&I contractors in critically dry years of about 53,000 AF compared to the baseline (DEIR, Table 6-24). Tables 6-8 (as corrected in Chapter 2 of this FEIR, and 6-9 in the DEIR show the historical annual effects of the proposed project on Table A allocations to M&I and agricultural contractors, from 1996 to 2005. These tables show that in 2001, the Monterey Amendment did decrease SWP allocations for urban areas by over 400,000 AF. Decreases of this magnitude may occasionally occur in future years.

This water supply reduction for M&I users occurs because under the Monterey Amendment, shortages for all contractors are to be shared proportionally to their Table A amounts, rather than being met first by water supply reductions to the agricultural contractors pursuant to the pre-Monterey Article 18(a) provisions. Prior to the Monterey Amendment, Article 18(a) reduced allocations to agricultural contractors before reducing allocations to M&I contractors. The Department agrees that this pre-Monterey provision provided more water to M&I contractors in drier years than under the Monterey Amendment. The Monterey Amendment provided for an allocation prorated on all contractors’ Table A amounts, which would provide less water to M&I contractors in drier years due to the elimination of the agricultural shortage provision. However,

the Monterey Agreement was a negotiated agreement that included a number of other provisions that benefitted M&I contractors. It provided an approval for agricultural contractors to permanently retire 45,000 AF of their Table A amounts and for the permanent transfer to M&I contractors of 130,000 AF of Table A amounts. In supply-short years, the Table A retirements affect the allocation among contractors, but not the total volume available from the Delta. While in full-supply years, the retirements may result in reduced pumping the Delta.

Additionally, M&I contractors were given equal priority with the agricultural contractors for Article 21 water and more flexibility with how they could use such water supplies. The water supply management practices (carryover in San Luis Reservoir, out-of-service area storage, Turnback Pool and flexible storage in Castaic Lake and Lake Perris) have added flexibility and reliability for drier years to both M&I and agricultural contractors.

Comment 21-11 appears to say that reducing drought protections to urban areas is detrimental. Under the Monterey Amendments, there will be a reduction during drier years of Table A allocations for M&I contractors. However, for some M&I contractors who acquired Table A amounts under the Monterey Amendment, those acquisitions more than offset the Table A allocation decrease in dry years (see DEIR Table 6-11). Local or out-of-service area storage withdrawals can also offset some Table A allocation decreases.

## Drought Hardening

The terms “drought hardening” or “demand hardening” apparently refer to the situation where water agencies implement more stringent conservation measures on an ongoing basis thereby leaving less flexibility for significant cutbacks during drought periods. To the extent that decreased M&I supplies from Table A deliveries due to the Monterey Amendment allocation changes have triggered added conservation, then there may be less flexibility for those M&I agencies in a drought period. The change in allocation of Article 21 water does partly offset the decrease in M&I contractors’ Table A supply in some water-type years due to changed Table A allocations, to the extent that M&I contractors can store the water in wet periods and recover it in drought periods.

It is not clear whether the transfers from agricultural contractors to M&I contractors would reduce the flexibility of agricultural contractors in a drought period. Since the agricultural contractors were requesting full Table A supplies prior to the Monterey Amendment, it is doubtful that these supplies were used for drought relief. As discussed in the DEIR regarding Agricultural Resources Impact 7.6-1 (on pages 7.6-5 through 7.6-9), there is no strong evidence to support a conclusion that land was taken out of irrigated production as a result of the proposed project. As discussed in DEIR regarding Terrestrial Biological Resources Impact 7.4-1 (on pages 7.4-20 through 7.4-22), the trend of replacing irrigated annual crops with permanent crops is expected to continue in the future with or without the proposed project. While it is possible that additional land could be converted to permanent crops as a result of the proposed project, no clear trend can be attributed to the proposed project that can be discerned from the historical analysis period. Although the proposed project resulted in a reduction of agricultural contractors’ share of SWP Table A amount on an annual average basis, the reliability of their Table A supplies increased during drought periods.

If enough water that is surplus to contractors’ annual needs (either Table A or Article 21) can be stored to weather drought periods and more than offset the losses of Table A supply in those years, then the storing contractors could better maintain supplies during droughts. Such stored supplies can reduce the effects of “drought or demand hardening” by reducing the added degree of conservation that a water agency may need to impose during a drought. See the

discussion in Chapter 8 of this FEIR relating to drought supplies from banked water for M&I contractors. The M&I contractors could draw on stored water during droughts. The net effect of the two changes on the municipal contractors would be small. See FEIR Subsection 15.2.3.5 for a discussion on whether the Monterey Amendment increased demand.

### 13.2.4.2 Opportunity for Growth

Comments claim that the pre-Monterey Article 18(a) served as a constraint on transfers that might have had growth inducing impacts because transfers of Table A water under the pre-Monterey long-term water supply contract would be subject to the agricultural shortage provisions. They state that elimination of the agricultural shortage provision of the Table A transfers will increase urban use and reliance on SWP water and requests that this impact be disclosed. As noted in DEIR Subsection 2.5.2, under Article 15(a) of the pre-Monterey long-term water supply contracts, the Department has approved the transfer of SWP water from one SWP contractor to another SWP contractor. Additionally, Article 41 provides the Department with the authority to approve a proposed assignment or transfer of any part of the contracts. Prior to the Monterey Amendment, the Department also implemented various water management practices through SWP contract amendments or separate agreements on a case-by-case basis.

There may be many reasons why more permanent transfers to Table A amounts had not occurred prior to the Monterey Amendment, including the fact that prior to the drought years of the late 1990s, most contractors were receiving most of the water they requested. More transfers might have taken place as water demand increased in M&I contractors' service areas and shortages became more frequent. Even though pre-Monterey transfers would be subject to Article 18(a) cutbacks, they could still be a valuable contribution to local water supply management. However, the Monterey Amendment has facilitated certain Table A transfers and the DEIR found that permanent Table A transfers under the Monterey Amendment could be growth inducing. Also, the water supply management practice of storage outside of a contractor's service area could also be growth inducing. These results are consistent with the objective of the Monterey Amendment to "facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies." The growth-inducing effects of the proposed project are discussed in Chapters 8 of the DEIR and the FEIR.

Comments state that it is reasonable, given the elimination of the agricultural shortage provisions, to expect that M&I contractors will try to maximize their use of the provisions in the Monterey Amendment and that the Monterey Plus EIR should disclose this impact. The Department agrees that M&I contractors would try to maximize their use of the water supply management practices – one of the objectives of the Monterey Agreement. The potential to increase the beneficial use of water that could be supplied by the SWP facilities, consistent with environmental and other regulatory requirements, was one of the benefits perceived by the Department and many of the SWP contractors that negotiated the Monterey Amendment.

Other comments have argued that the change in Article 18(a) that requires that water shortages be shared equally among all contractors in proportion to their Table A amounts means that there will be more pressure on the Department to maintain high levels of exports to meet the unyielding demands of both. As discussed in FEIR Subsection 11.2.4.2.7, the Department does not agree. For a variety of reasons, pumping from the Delta is usually supply-limited, not demand-limited. When supplies are limited, contractor demands or requests do not determine how much water is pumped from the Delta, but rather regulatory and hydrologic constraints control the ability of the Department to meet SWP needs and contractor requests. The fact that

Delta pumping is supply-limited more often means there will be fewer times when water could be exported in the future as a result of the water supply management practices – the only impact from the proposed project which could result in increased impacts on the Delta. That impact is reflected in the estimate of about 50,000 AF of average annual added Delta export pumping in the future attributable to the proposed project as a result of the water supply management practices, and would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts are likely to be less than those set forth in the DEIR. See FEIR Subsection 15.2.2, on the effect of the water supply management practices on deliveries and Subsection 15.2.3 on water supply management practices and demand.

The comments also express concern that the Department does not evaluate which users are practicing water conservation and which are not, even when such exports will intensify the impact on the Delta. The DEIR considered these issues, but concluded that the Monterey Amendment was not an appropriate tool for mandating these types of changes. These suggested changes were rejected as alternatives because they did not meet the project objectives. They are not alternatives to the proposed project, but rather different projects with different objectives designed to address issues related to operation of the SWP as a whole or to address issues only tangentially (or not at all) related to the SWP or the Monterey Amendment. See FEIR Subsections 5.2.1.2 and 11.2.4. However, the DEIR does not avoid the demands facing the State and the Delta either with regard to growth and water availability (see Chapters 8 and 9 on Growth and Water Reliability in the DEIR and the FEIR), with regard to the stresses facing the Delta (see Section 7.3 in the DEIR and Section 7.2 on fisheries in the FEIR) or with regard to challenges posed by climate change (Chapter 12 in the DEIR and Chapter 12 in the FEIR).

As discussed in FEIR Subsection 8.2.2.2, although the Department does not have statutory authorization to establish mandatory requirements regarding water reliability and growth, it supports local and regional water planning and conservation efforts through statewide planning and through grants and local assistance programs. Demand reduction and water conservation strategies are important tools in water management planning and the Department is involved in a number of legislative and administrative actions designed to provide a regional or statewide approach to these strategies. See DEIR pages 11-5 through 11-7. The Department is taking a leadership role and is actively involved in many of these efforts. See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection. As discussed above, such measures are not alternatives to the Monterey Amendment and implementation of such measures would not be affected by the Monterey Amendment. See FEIR Subsection 11.2.4.

### 13.2.5 Area-of-Origin Demands and Article 18

Comments addressed in this subsection include: 6-2, 6-3, 17-4, 19-5, and 30-151.

Several comments expressed concern that the Monterey Amendment might reduce the water available for area of origin users or for other water users with a higher priority or more senior rights. Comments questioned whether the area of origin provision, Article 18(c), was deleted under the Monterey Amendment, and mentioned that the DEIR failed to analyze decreased export supplies due to area of origin needs.

The Monterey Amendment did not delete or amend Article 18(c), "Permanent Shortage; Contract for Areas-of-Origin." This provision sets up the redistribution of costs of the SWP transportation facilities if the Department enters into a contract with a party of a prior right to water under the provisions of CWC Sections 11460-11463, which will cause a permanent shortage in the supply of SWP water to the contractors.

As is the case with regulatory conditions for the protection of fisheries, the Department operates the SWP subject to existing legal constraints for area of origin rights. The Monterey Amendment cannot and does not change hydrologic conditions or regulatory requirements in effect at the time of export, including applicable permits and constraints to protect water quality and listed fish species. Therefore, the Monterey Amendment cannot and does not change any rights that "areas of origin" have under CWC Sections 11460-11463 or any other law. See FEIR Subsection 5.2.1.2. See also FEIR Subsections 14.2.1 and 7.2.2.1.3 on regulatory conditions in the Delta.

Increased demands by non-SWP users may reduce the amount of water available to the SWP. The CALSIM II model includes increased demands from the area of origin (DEIR Table 5-3, page 5-12) Appendix F, page 20, Table 12). If, for some reason, diversions by areas of origin or by other water users with higher priority or more senior water rights are greater than those assumed in the models, the real time situation will govern. To the extent that water users from the areas of origin or other users use more water beyond that included in the modeling assumptions, the amount of water available to the SWP will be reduced and the potential impact of the Monterey Amendment on the environment will also be reduced.

Comment 6-3 raises the question of whether area-of-origin SWP contractors have priority to some or all of the SWP water. The answer is "no," although this question is currently the subject of litigation. The SWP water supply contracts grant no area-of-origin rights to SWP contractors in the area of origin. Those contracts acknowledge that SWP contractors in the area of origin may establish an area of origin right under CWC Sections 11460-11463 independent of the SWP water supply contracts, and once an area of origin right is established, the Department must recognize that right. Changes in Article 18(a) or the elimination of Article 18(b) did not affect those rights.

## 13.3 RESPONSES TO INDIVIDUAL COMMENTS

### Response to Comment 6-2

The comment states that the DEIR fails to demonstrate that increases in diversions from the Delta pursuant to the proposed project are consistent with the Watershed Protection Act of the Delta Protection Act. See FEIR Subsection 13.2.5 which discusses how areas of origin demands are not affected by the Monterey Amendment.

### Response to Comment 6-3

The comment states that the Department should better explain the elimination of Article 18(b) and the environmental impacts of such elimination. The comment also claims that area of origin protection was also eliminated. See FEIR Subsection 13.2.1 which discusses the history of Article 18, Subsection 13.2.2 which discusses invocation of Article 18(b), and Subsection 13.2.3 which discusses the impacts of two Article18(b) No Project Alternatives. See FEIR Subsection 13.2.5 which discusses how areas of origin demands are not affected by the Monterey Amendment.

Also see the Response to Comment 6-3 in FEIR Chapter 4 regarding disclosure under CEQA.

## Response to Comment 6-16

The comment states that the DEIR has failed to adequately disclose why the contractors do not want to reduce Table A amounts, or why the allocation of certain SWP costs and water shortages cannot be accomplished through invocation of Article 18(b). See FEIR Subsection 13.2.1 which discusses the history of Article 18, Subsection 13.2.2 which discusses invocation of Article 18(b), and Subsection 13.2.2.3 which discusses the process in determining annual Table A amounts. See also Response to Comment 6-16 in FEIR Chapter 9.

## Response to Comment 16-3

The comment states that the SWP changed from a firm yield basis to a variable yield basis well before the Monterey Amendment was negotiated and asks for clarification in the FEIR. This is correct. See FEIR Subsection 13.2.2.3.

## Response to Comment 16-16

The comment sets forth the view of the parties with regard to the long-term water supply contracts. See FEIR Subsections 13.2.2.1 and 13.2.2.2. See also Response to Comment 16-16 in FEIR Chapter 5.

## Response to Comment 16-19

The comment suggests the following text revision to the first sentence in paragraph 2 on page 4-6 of the DEIR. The Department agrees and the first sentence in the second paragraph on page 4-6 of the DEIR is revised to read as follows:

> The result of these contractual changes is that the Department now allocates Table A and interruptible water among contractors in proportion to annual Table A amounts, up to a contractor's request for this water, without consideration of whether the water would be used for M&I or agricultural purposes ~~and without consideration of contractor's actual Table A demand~~.

## Response to Comment 16-20

The comment suggests text additions to the second sentence of the third paragraph on page 4-6 of the DEIR:

> Article 53 provides that agricultural contractors, namely County of Kings, Dudley Ridge WD, Empire West ID, KCWA, Oak Flat WD, and Tulare Lake WSD, will make available 130,000 AF of Table A amounts and related transportation capacity, for permanent transfer to M&I contractors or non-contractors pursuant to Article 41 of the SWP contracts on a willing buyer and willing seller basis.

The comment is correct in that transfers can be and were approved by the Department pursuant to Article 41. Prior to the Monterey Amendment, the Department had approved the sale or transfer of SWP water from one contractor to another under Article 15(a) of the long-term water supply contracts. In addition to the Department's general authority to enter into contracts, Article 41 also provides the Department with the authority to approve the assignment or transfer of any part of the contracts. Prior to the Monterey Amendment, the Department implemented

various water supply management practices through SWP contract amendments or separate agreements on a case-by-case basis. This authority and practice is discussed in DEIR Subsection 2.5.2, on pages 2-13 through 2-15. Both Article 15(a) and Article 41 provide the Department with the authority to approve transfers Article 53 specifically begins with the statement that "Article 41 provides that no assignment or transfer of a contract or any part thereof, rights thereunder or interest therein by a contractor shall be valid unless and until it is approved by the State and made subject to such reasonable terms and conditions as the State may impose," page 4-6 in Chapter 4 of the DEIR has been revised as follows:

> The Monterey Amendment added Article 53 to the long-term water supply contracts. Article 53, which references Article 41, provides that agricultural contractors…

## Response to Comment 16-34

The comment requests a change to the DIER to clarify surplus water allocations to agricultural contractors. Therefore, the following text change is made at the end of the first bullet describing the proposed project on page ES-2:

- altered water allocation procedures. Shortages and surpluses would be shared among contractors in proportion to their Table A amounts. During shortages, agricultural contractors would no longer be subject to cuts in supply before municipal contractors~~;~~. During surplus water conditions, agricultural contractors would no longer receive first priority to use of surplus water.

## Response to Comment 16-38

The comment requests that the last sentence in the second paragraph on page 2-11 of the DEIR be revised to add reference to "current storage conditions." The Department notes that the comment requests referencing the series of bulletins done in the 1960s. The last sentence in the second paragraph on page 2-11 is revised to read as follows:

> … In recent years, for operations and planning purposes, the concept of firm yield has been replaced with water delivery reliability curves which show the likelihood of water deliveries by the SWP in any year given the range of historical hydrologic events and current storage conditions.

## Response to Comment 16-41

The comment requests that the first bullet on page 3-4 of the DEIR be revised to include reference to the permanent retirement of agricultural Table A amounts. The first bullet on page 3-4 of the DEIR is revised to read as follows:

- provide for permanent sales of agricultural and Table A amounts to M&I contractors, and permanent retirement of agricultural Table A amounts.

## Response to Comment 16-44

The comment requests that the reference to Table 6-3 in the third sentence of the fourth paragraph on page 4-11 of the DEIR be revised to refer to the correct table – Table 6-4. The third sentence of the third full paragraph on page 4-11 of the DEIR is revised to read as follows:

> … The transfers are listed in Table 6-4~~3~~. …

## Response to Comment 17-1

The comment states that the DEIR does not adequately address the deletion of Article 18(b); states that the Department should have implemented Article 18(b) because the project was not being developed as planned; and suggests that implementation of Article 18(b) would lead not only to smaller Table A amounts, but to less water delivered. See FEIR Subsection 13.2.1 which discusses the history of Article 18 and FEIR Subsection 13.2.2 which discusses invocation of Article 18(b).

Although the Department does not agree with the claim that the two Article 18(b) alternatives do not represent a valid interpretation of the water supply contracts, as a result of comments, the Department has analyzed a decreased export scenario where Article 18(b) is invoked and no Article 21 water is delivered to SWP contractors (see FEIR Subsection 9.2.5.3). See also Response to Comment 17-1 in FEIR Chapter 9.

## Response to Comment 17-4

The comment claims that the DEIR does not adequately analyze the effects of increased area of origin needs, and asks for clarification on whether or not Article 18(c) was deleted under the Monterey Amendment. See FEIR Subsection 13.2.5 which discusses how areas-of-origin demands are not affected by the Monterey Amendment.

The comment also notes that one of the objectives of the Monterey Amendment is to “increase exports” through time. The primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. Although not an objective of the Monterey Amendment, it is true that implementation of the water supply management practices may increase exports. These were discussed in the DEIR in Chapter 6 and analyzed in the relevant Sections of DEIR Chapter 7. For more information on the impact of the water supply management practices on deliveries, see FEIR Chapter 15, Subsection 15.2.2. See also FEIR Subsection 11.2.4.2 on why alternatives that would reduce exports were rejected.

## Response to Comment 17-7

The comment claims that the DEIR does not adequately analyze the invocation of Article 18(b).

See FEIR Subsection 13.2.1 which discusses the history of Article 18 and FEIR Subsection 13.2.2 which discusses invocation of Article 18(b). The comment also mentions the operation of the KWB with invocation of Article 18(b). See Response to Comment 17-7 in FEIR Chapter 16.

## Response to Comment 17-8

The comment suggests that the DEIR wrongly assumes that under the provisions of Articles 18 and 21 the SWP will deliver the same (or increased) amounts of water under both the project and no-project scenarios. See FEIR Subsections 13.2.1 and 13.2.2 for a discussion of the history leading up to the changes to Articles 18 and 21 and the assumptions regarding the invocation of the no-project alternatives invoking Article 18(b). See also Response to Comment 17-8 in FEIR Chapter 11.

## Response to Comment 17-12

The comment claims that invocation of Article 18(b) should result in a drastic change in export levels and that the DEIR did not adequately analyze a reduced export alternative. See FEIR Subsection 13.2.2 which discusses the invocation of Article 18(b), especially Subsection 13.2.2.2 which clarifies what would happen to Article 21 deliveries under an Article 18(b) alternative. Regarding the export of Article 21 water after invocation of Article 18(b), the DEIR has noted throughout that the Department operates the SWP to maximize deliveries under the requirements of D-1641 and other regulatory constraints, including constraints to protect listed species.

The comment states that the DEIR failed to analyze the eventual impacts of area of origin demands, delta needs and fishery requirements. See FEIR Subsection 13.2.5 regarding the fact that the Monterey Amendment did not change area of origin rights. See FEIR Subsection 7.2.2.1.3 regarding the fact that the Monterey Amendment did not change laws protecting the Delta fisheries and the Delta aquatic environment. Increasing area of origin demands and more stringent environmental regulation may reduce the amount of water exported and the potential impacts of the Monterey Amendment. See FEIR Subsection 6.2.2.2 on changing conditions.

The FEIR also includes an analysis of the effects of operating the SWP with Article 18(b) invoked and limited or no Article 21 water delivered to SWP contractors. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3. See also Response to Comment 17-12 in FEIR Chapter 9.

## Response to Comment 19-1

The comment asks for further explanation of the implications of implementing Article 18(b). The assumptions involved in implementing Article 18(b) are analyzed in DEIR Chapter 11 with environmental impacts on page 11-31. Further explanation of the Department's interpretation of an Article 18(b) invocations are discussed in FEIR Subsections 13.2.2 and 13.2.3, as well as a discussion of the Article 18(b) alternatives in FEIR Section 11.22 and Subsection 11.2.3.1.2.

## Response to Comment 19-2

The comment states that it is not acceptable to alter the definition of Article 18(a) to have shortage provisions apply to conditions due to any cause instead of temporary causes. The assumptions involved in implementing Article 18(b) are analyzed in DEIR Chapter 11 with environmental impacts on page 11-31. See FEIR Subsection 13.2.2 on of the Department's interpretation of an Article 18(b) invocation. See also Response to Comment 19-2 in Chapter 11.

## Response to Comment 19-5

The comment states that economic impacts to areas of origin, both positive and negative are ignored in the DEIR and this must be rectified. The CEQA Guidelines state that economic or social effects shall not be treated as significant effects on the environment although economic or social effects of a project may be used to determine the significance of physical changes on the environment caused by the project (see Section 15131). With the exception of relatively minor impacts associated primarily with watershed improvement programs in Plumas County, no significant environmental impacts were identified in the areas of origin. See FEIR Subsection 13.2.5 on water rights and areas of origin.

## Response to Comment 21-10

The comment asks that the FEIR explain the role of Article 18(b) in the pre-Monterey contracts, and claims that Article 18(b) served as a "safety valve" for allowing the Department to lower the project yield. The DEIR has clarified how total Table A amounts are used in the determination of individual contractor deliveries and in water supply reductions (see DEIR Chapters 2 and 3 for history and background on Table A). See also FEIR Subsection 13.2.1 which discusses the history of Article 18 and its part in the Monterey negotiation process.

The comment notes that the DEIR suggests in several places that, under most circumstances, there would be no effective difference between implementation of Article 18(b) and operations under the Monterey Amendments. As discussed in FEIR Subsection 13.2.2.2, this observation is correct. This is true because the Department optimizes pumping through Banks Pumping Plant as limited by D-1461 requirements and other legal and regulatory constraints. One thing that does change is the classification of water. With the invocation of Article 18(b), less water classified as Table A would be delivered but more Article 21 water would be delivered to make up the difference. For more discussion on types of water, see FEIR Chapter 14, Subsection 14.2.3. The Department's interpretation of the invocation of Article 18(b) is further discussed in FEIR Subsection 13.2.2. The FEIR also includes an analysis of the effects of operating the SWP with Article 18(b) invoked and limited or no Article 21 water delivered to SWP contractors. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3.

The comment also questions the Department's conclusion for not including the altered allocation procedures in the historical analysis of the water supply management options. The effects of the water supply management practices were analyzed in Study No. 2, DEIR Appendix K. It is noted there on page 3 that the "allocation provisions do not affect the total amount of Table A or surplus water supplies made available by the Department, only how that total supply is divided among the contractors. While the Monterey Amendment's revised allocation provisions affect how the available total supply is allocated to individual contractors, these changes would not have any noticeable effect on SWP operations at SWP San Luis Reservoir or Banks Pumping Plant. Therefore, the effect of these allocation changes is not included in the historical impact analysis included in this study." As noted on page 6-47 of the DEIR, "The annual average of total Table A and Article 21 deliveries would decrease by 1 percent compared to the baseline scenario." This decrease amounts to no noticeable effect on export pumping from the Delta at Banks Pumping Plant. Although there would not be any increase in export pumping, deliveries to M&I contractors would increase by three percent (primarily because of the Table A transfers). Regarding the comment that Article 21 allocation procedures should be included in the historical operations study (No. 2), see FEIR Chapter 14 Subsection 14.2.5.1 on changes in Article 21 priorities and growth potential.

The DEIR did identify a cumulative total increase in deliveries of about 44,000 AF during the nine-year period from 1996 to 2004 compared to the baseline scenario, due primarily to storage outside of contractors' service areas. From 1996 to 2003, the Monterey Amendment provisions increased Delta exports and reduced Delta outflow by a total amount equal to 0.03 percent of total Delta outflow during that period. If the historical operations analysis had included the effects of the permanent Table A transfers from 1996 to 2003, the Department notes that some of the M&I contractors receiving the transfers had less immediate demand for the water than the agricultural contractors that transferred Table A amounts. See also Response to Comment 21-10 in FEIR Chapter 9.

## Response to Comment 21-11

The comment implies that Article 18(a) served as a constraint on transfers which would promote growth. See FEIR Subsection 13.2.4 which discusses changes to Article 18(a) and the reliability of M&I contractor deliveries, including Subsection 13.2.4.2 on opportunities for growth. Also see FEIR Chapter 8 on Growth Inducing Impacts.

While the Monterey Amendment helped facilitate certain transfers under Article 53, the Department has approved the sale or transfer of SWP water from one SWP contractor to another SWP contractor under Article 15(a) of the long-term water supply contracts. Additionally, Article 41 provides the Department with the authority to approve the assignment or transfer of any part of the contracts. Prior to the Monterey Amendment, the Department implemented various water management practices through SWP contract amendments or separate agreements on a case-by-case basis. See DEIR Subsection 2.5.2, starting on page 2-13. See also Response to Comment 30-55 for more information on Table A transfers.

## Response to Comment 21-13

The comment claims that the implications of Article 53 allowing for the permanent transfer of 130,000 AF of Table A amounts have not been fully disclosed in the DEIR and that Article 53 leads to privatization of the SWP. The environmental impacts of the Monterey Amendment have been discussed and analyzed in the DEIR and are clarified and amplified by this FEIR. See DEIR Subsection 6.4.2 which discusses the Article 53 transfers, Subsection 7.6.3 which discusses changes to agricultural resources by the Article 53 transfers, and Subsection 8.1.2 which discusses Article 53 transfers and growth. While the Monterey Amendment helped facilitate certain transfers under Article 53, the Department has approved the sale or transfer of SWP water from one SWP contractor to another SWP contractor under Article 15(a) of the long-term water supply contracts. Additionally, Article 41 provides the Department with the authority to approve the assignment or transfer of any part of the contracts. Prior to the Monterey Amendment, the Department implemented various water management practices through SWP contract amendments or separate agreements on a case-by-case basis. See DEIR Subsection 2.5.2, starting on page 2-13.

Although the Monterey Amendment facilitated approval for transfers, the Department still is involved in the approval process, and is a responsible agency in the review of the accompanying CEQA documents.

The potential to increase the beneficial use of water that could be supplied by the SWP facilities, consistent with water quality and environmental constraints on facility operation, especially Delta exports, was one of the benefits perceived by the Department and many of the SWP contractors that negotiated the Monterey Amendment. This result is consistent with one of the objectives of the Monterey Amendment to “facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies.” See also Response to Comment 30-55 for more discussion on the impacts of Table A transfers.

The comment also claims that the 45,000 AF retired gives a false impression of it being reliable before its retirement. This claim is incorrect. See FEIR Subsection 16.2.4.

## Response to Comment 21-54

The comment infers that by eliminating Article 18(b) that the Department has eliminated a “key safeguard” that allows the Department to respond to permanent shortages by proportionality

and without compensation to the contractors adjusting entitlements to reflect reality. See FEIR Subsection 13.2.2 on the invocation of Article 18(b) including a discussion of the shift from using firm yield to current delivery probability for water supply planning. The discussion on the water supply planning process notes that the Department does understand that water supply is variable each year, and the Department and the contractors assume a degree of risk in the projected allocations of SWP water throughout the year. Therefore, the claim that some tool has been relinquished is not relevant because the Department no longer relies on "firm yield" to determine water supply. The comment also appears to suggest that under invocation of Article 18(c) deliveries would stay around 2 million AF. The Department does not agree as noted in FEIR Subsection 13.2.2.2. See also Response to Comment 21-54 in FEIR Chapter 9.

### Response to Comment 26-2

The comment objects to the change to Article 18(a), stating that "this change will put more pressure on DWR to maintain high levels of exports to meet the unyielding demands of both [farms and cities] without evaluation of which users are practicing water conservation." See FEIR Subsection 13.2.4.2 which discusses that the Article 18(a) change does not put more pressure on the Department to maintain higher levels of exports. As noted throughout the DEIR, the Department operates the SWP to maximize deliveries under its permits and other regulatory constraints, including constraints to protect endangered species. See also Subsections 17.2.4.4 on the Department's role in related policy issues, including water conservation; 17.2.6.1 and 17.2.6.2 on Delta impacts and mitigation; and 17.2.10.2 on water conservation and reducing demand.

### Response to Comment 30-4

The comment claims that the DEIR does not comply with the *PCL v. DWR* and does not adequately analyze the elimination of Article 18(b). See FEIR Subsection 13.2.2 which discusses invocation of Article 18(b). See also Response to Comment 30-4 in FEIR Chapters 4 and 9.

### Response to Comment 30-16

The comment states that the (*PCL v. DWR*) court held that an adequate EIR must analyze the impacts of implementing and eliminating Article 18(b). See FEIR Subsection 13.2.2 on the no project alternative of implementing Article 18(b). See also Response to Comment 30-16 in FEIR Chapters 9 and 11.

### Response to Comment 30-22

The comment states that *PCL v. DWR* and the Settlement Agreement require the EIR to include an analysis of the impacts of a no project alternative implementing Article 18(b) and the impacts of eliminating Article 18(b) and Article 21(g)(1). See FEIR Subsections 13.2.1 and 13.2.2.

See also Response to Comment 30-22 in FEIR Chapters 9 and 11.

### Response to Comment 30-23

The comment disagrees with the Department's analysis of Article 18(b) and the Department's assumption that it would deliver additional water above Table A water. The comment mentions that the Department should have invoked a current firm yield of the project. Additionally, the

comment concludes that if Article 18(b) had been implemented that “paper water” would not exist.

The concept of firm yield needs to be understood in the context of the development of the SWP. See FEIR Subsections 13.2.1 and 13.2.2.3. See a discussion of the Department's water delivery assumptions under an invocation of Article 18(b) in FEIR Subsection 13.2.2, especially Subsection 13.2.2.2. In that subsection, it notes that during the fall of 1987, the Department issued Water Service Contractor’s Water Memorandum No.1878, in which the Department compared the merit of four interpretations of the allocation procedure under Article 18(b). None of these considered a cap on water deliveries above reduced Article 18(b) Table A amounts. See also FEIR Chapter 9, Subsection 9.2.5.1 on a discussion of the elimination of Article 18 (b) and the paper water concept.

## Response to Comment 30-26

The comment discusses its view of the pre-Monterey Article 18 provisions and their implications, and states that the DEIR fails to “recognize that perceived and explicit disclosure of water reliability can impact demand for SWP water.” See FEIR Subsection 13.2.1 which discusses the history of Article 18, Subsection 13.2.2 which discusses the application of Table A amounts in deciding current annual deliveries, and Subsection 13.2.4 which discusses how the changes to Article 18(a) affected the reliability of M&I contractor deliveries. See also Response to Comment 30-25 in FEIR Chapter 9.

## Response to Comment 30-53

The comment claims that the DEIR fails to disclose the impacts of amending Article 18(a) and the impacts to urban contractors. The DEIR does show the impacts of altered allocations under Article 18(a); both with Table A deliveries only and combined with the altered allocations of Article 21 water (DEIR Section 6.4). See FEIR Subsection 13.2.1 for discussion of SWP development and Article 18. Also see Subsection 13.2.4 which discusses Article 18(a) and the reliability of M&I contractor deliveries.

The comment notes that municipal contractors will seek to mitigate a reduction in water supplies during shortages from the altered allocation procedures by making use of the water supply management practices. It is true that the water supply management practices provide increased flexibility to M&I contractors. See FEIR Chapter 15, Subsection 15.2.2, which discusses the increase in deliveries due to the practices, and FEIR Chapter 7, Subsection 7.2.2.3, which discusses the increased deliveries and the potential impacts to fish and mitigation to reduce potential impacts to a level of insignificance. See also FEIR Chapter 14, Subsection 14.2.2.3, which discusses the increasing contractor requests prior to the Monterey Amendment, and Subsection 14.2.4 for more information on post-Monterey Article 21 water deliveries to urban contractors and effects on the Delta.

The comment also claims that the elimination of agricultural-first shortages under Article 18(a) facilitates transfers that would remove an “obstacle to agriculture-to-urban transfers that facilitate growth.” See Response to Comment 30-55. See also Response to Comment 30-53 in FEIR Chapter 14.

## Response to Comment 30-55

The comment claims that prior to the Monterey Amendment, the Department had contractual responsibility to oversee and approve transfers of water through the SWP and that under the

proposed project, contractors are now permitted to transfer project and no project water at their convenience and that the Department has essentially given up effective ability to control where and how water is used within the SWP.

While the Monterey Amendment helped facilitate certain transfers under Article 53, the Department has approved the sale or transfer of SWP water from one SWP contractor to another SWP contractor under Article 15(a) of the long-term water supply contracts. Additionally, Article 41 provides the Department with the authority to approve the assignment or transfer of any part of the contracts. Prior to the Monterey Amendment, the Department implemented various water management practices through SWP contract amendments or separate agreements on a case-by-case basis. See DEIR Subsection 2.5.2, starting on page 2-13. Although the Monterey Amendment facilitated approval for transfers, the Department still is involved in the approval process, and is a responsible agency in the review of the accompanying CEQA documents.

The potential to increase the beneficial use of water that could be supplied by the SWP facilities, consistent with water quality and environmental constraints on facility operation, especially Delta exports, was one of the benefits perceived by the Department and many of the SWP contractors that negotiated the Monterey Amendment. This result is consistent with one of the objectives of the Monterey Amendment to "facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies."

The comment claims that agricultural Table A was considered in the pre-Monterey contracts to be less reliable and that when transferred to M&I contractors provided unreliable water supplies supporting urban growth. While it is true that in the pre-Monterey contracts agricultural contractors would receive the first reduction during a shortage, it had been envisioned that once all of the originally planned SWP facilities were built that the shortages to agricultural contractors prior to M&I contractors would be infrequent (a worst case was a total 100 percent reduction in seven consecutive years). However, due lack of completion of the SWP, more restrictive environmental requirements than 50 years ago, and due to the fact that most contractor's Table A amounts are at a maximum and all contractors are now requesting delivery of all of their Table A, the shortage amounts of today are very different than what was envisioned 50 years ago. The Department agrees that Table A water transferred from an agricultural contractor to an M&I contractor before the Monterey Amendment would have been subject to the agricultural reductions and could be considered less reliable than M&I Table A water. Whether such a transfer would be inappropriate for use for development would depend on a variety of factors including its reliability, whether the water was stored, and how it related to other water sources.

The comment claims that the proposed project "implies that all water under the SWP has equal reliability" since the Department has not reduced the total of maximum Table A amounts under Article 18(b), and again that transfers of agricultural Table A to M&I Table A are less reliable. Under the proposed project, it is correct that agricultural and M&I contractors share equally in reductions when there are shortages. This was one of the objectives of the Monterey Amendment. As noted throughout the DEIR and above, total supply to the SWP is variable and is presented to the SWP contractors and the public through the reliability report and other means. The reliability of SWP supplies varies annually with hydrologic factors and regulatory changes. The Department agrees that the pre-Monterey Article 18(a) provision provided more water to M&I contractors in drier years than under the Monterey Amendment, however the Monterey Amendment was a negotiated agreement that included a number of other provisions that benefit M&I contractors. Please see FEIR Subsection 13.2.4.1 for a discussion on the effects of the proposed project on water reliability for M&I contractors.

As noted on page 6-47 of the DEIR, "The annual average of total Table A and Article 21 deliveries would decrease by 1 percent compared to the baseline scenario." This decrease amounts to no noticeable effect on export pumping from the Delta at Banks Pumping Plant. Although there would not be any increase in export pumping, deliveries to M&I contractors would increase by 3 percent (primarily because of the Table A transfers).

Like As discussed in FEIR Subsection 13.2.2.3, because of the recognition that some anticipated facilities have not been built and that the reliability of SWP water supplies fluctuates for many reasons, including physical and regulatory causes, the Department now considers the probability of an amount of water being delivered annually rather than firm yield when discussing reliability of SWP water supplies. As discussed in FEIR Chapter 7, Subsection 7.2.2.1.3, the Department considers current regulatory processes and evolving Delta constraints to be the appropriate means of protecting the Delta and other environmental resources. As discussed in FEIR Chapter 9, Subsections 9.2.4 and 9.2.6, the Department considers processes such as the Reliability Report (which addresses the impact of climate change and Delta pumping restrictions) and other means of urban water management planning to be a more effective means of making local government aware of the variability and limitations of the SWP water supply. See also FEIR Subsection 13.2.2.3.

## Response to Comment 30-68

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-68 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2003 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a discussion paper drafted during the development of the DEIR and states the earliest that Article 18(b) could have been eliminated from the water supply contracts was August 1996. The DEIR reflects changes made as a result of these and other comments. The DEIR analysis assumed that Article 18(b) was eliminated in the proposed project scenario in 1996. Analysis of CNPA3 and CNPA4 assumed invocation of Article 18(b) also in 1996.

The comment additionally states that the analysis of the "no project" alternative must include reduced yield to satisfy the court's instructions. This analysis was performed. As discussed in FEIR Subsection 13.2.2.1, the DEIR stated on pages 11-2 and 11-7, that Article 18(b) of the pre-Monterey Amendment long-term water supply contracts would be invoked for CNPA3 and CNPA4 and the sum of the Table A amounts would be reduced from 4.23 to 1.9 million AF. The reduced total Table A amount was estimated based on the initial requirement that the SWP be able to deliver the sum of the Table A amounts in almost all years. It was estimated, and discussed with the EIR Committee's modeling subcommittee, that the SWP can deliver 1.9 million AF with its existing facilities and within the current regulatory framework as of 2003 in all but one year in the 73-year hydrologic record. See FEIR Subsection 6.3.2.2 for discussion of the EIR committee meetings and suggestions for CALSIM II and its use. Under these two alternatives none of the elements of the Monterey Amendment would be implemented. In years when available supplies are less than 1.9 million AF, water would be allocated in accordance with pre-Monterey Article 18(a) provisions for temporary shortages. In years when available supplies exceeded 1.9 million AF, surplus water would be delivered. See also FEIR Chapter 9

on the reliability of water supplies and growth, especially Subsection 9.2.5 on the Elimination of Article 18(b) and Article 21(g)(1).

## Response to Comment 30-115

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-115 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented claims that the Department should go beyond the DEIR and compare water use efficiency in different geographical regions and jurisdictions throughout the state as well as energy use, traffic and related motor vehicle fuel use, and air emissions. The comment also asks for a determination of water use efficiency in the particular areas receiving Monterey transfers. While the Department recognizes the importance of water use efficiency, such analysis is outside the scope of the project description of this EIR.

The comment asks that the EIR explain how the Article 18(a) change affects the supply reliability for existing urban areas and its implication for growth. See FEIR Subsection 13.2.4 which discusses Article 18(a) and the reliability of M&I contractor deliveries. See FEIR Chapter 9 on the reliability of water supplies and growth, especially Subsection 9.2.5 on the Elimination of Article 18(b) and Article 21(g)(1).

See also Response to Comment 30-115 in Chapter 6.3, 8 and 9.

## Response to Comment 30-151

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-151 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an earlier administrative draft of the EIR and asks for an Article 18(b) alternative. The DEIR reflects changes made as a result of these and other comments. See Response to Comment 30-68. See FEIR Subsection 13.2.2 which discusses the invocation of Article 18(b), and Subsection 13.2.5 which discusses how areas of origin demands are not affected by the Monterey Amendment. See FEIR Chapter 9 on the reliability of water supplies and growth, especially Subsection 9.2.5 on the Elimination of Article 18(b) and Article 21(g)(1). See also Response to Comment 30-151 in FEIR Chapter 11.

## Response to Comment 31-4

The comment disagrees with the Department's approach to the interpretation of invoking Article 18(b), and notes that the appeals court found the previous EIR to be deficient because it failed to evaluate this alternative. See FEIR Subsection 13.2.3 which discusses the Department's interpretation of invoking Article 18(b) and delivery of Article 21 water. See Response to Comment 31-4 in FEIR Chapters 9 and 11.

## Response to Comment 35-5

The comment claims that changes the elimination of Article 18(b) has led urban planners to rely on an over-stated water supply which has led to growth. See FEIR Subsection 13.2.4.2 which discusses the elimination of the agriculture-first cuts in Article 18(a) and the concept of paper water and growth. See also Response to Comment 35-5 in Chapters 8 and 9.

## Response to Comment 36-7

The comment asks for re-evaluation of Article 18(a) in light of new circumstances (Wanger Decision) that curtails Delta pumping, and the fact that urban contractors have less reliability with the post-Monterey Article 18(a) to deal with droughts. FEIR Subsection 7.2.2.1.1 updates recent regulatory events, including the Wanger decision, which have reduced the amount of SWP water that can be exported from the Delta. FEIR Subsection 7.2.2.1.3 discusses the impacts to the Delta and mitigation measures which reduce the impacts to a level that is less than significant. See also FEIR Subsections 5.2.1.2 and 6.2.2 regarding how ongoing conditions and activities are part of the environment in which the proposed project will operate.

Prior to the Monterey Amendment, Article 18(a) reduced allocations to agricultural contractors prior to reducing allocations to M&I contractors. The Department agrees that this provision provided less water to M&I contractors in drier years than under the Monterey Amendment. However, the Monterey Amendment was a negotiated agreement that included a number of other provisions that benefit M&I contractors. See FEIR Subsection 13.2.4.1 for a discussion on the effects of the proposed project on water reliability for M&I contractors.

The comment also states that elimination of the “urban preference” in times of shortage creates a false assurance to farmers, encouraging them to plant long-term crops such as orchards rather than annual row crops. It is not clear whether the transfers from agricultural contractors to M&I contractors would reduce the flexibility of agricultural contractors in a drought period. Since the agricultural contractors were requesting full Table A supplies prior to the Monterey Amendment, it is doubtful that these supplies were used for drought relief. See FEIR Subsection 13.2.4.1 for a discussion on the effects of the proposed project on water reliability for agricultural contractors.

## Response to Comment 36-8

The comment asks that the DEIR evaluate the financial impact that could occur to agricultural contractors should the Department “not be able to follow through on its commitment in the Monterey Agreement to supply the increased ratio of 50 percent of the water to farmers.”

The comment erroneously implies that the agricultural contractors would receive an “increased ratio of 50%” in their water supply. The 50 percent is a reference that is from the pre-Monterey Article 18(a) which stated that reductions for agricultural use could not exceed 50 percent in any one year. This reduction was the upper limit. However, this former contractual limit does not

translate into an average annual increase of 50 percent of water to farmers. As shown in DEIR Table 6-15, the average critically dry year increase to agricultural contractors was only 13 percent. Additionally, the Department's ability to meet contractors' requests for water is limited not only by hydrology, but also by the capacity of the SWP's storage and conveyance facilities, agreements with other agencies, water rights, and State and federal environmental laws and regulations. The Department endeavors, through publication of the Reliability Reports and contractor briefings, to convey the risk involved in their SWP water supplies.

The comment also suggests that, "since the Department may be creating a substantial liability for the people of the state of California" by eliminating the "urban preference," the DEIR should have analyzed the potential financial impact of eliminating the "urban preference" in Article 18(a). The comment further claims that because of the State's fiscal emergency, the Department should provide this economic analysis in the DEIR. It is not clear what the commenter means by "creating a substantial liability for the people of the state of California." The altered allocation procedures and permanent transfers of Table A amounts generally result in less water in wetter years and more water in drier years for agricultural contractors. M&I contractors may have more or less water in different type years depending on whether they purchased additional Table A water. See DEIR Chapter 6. DEIR Subsection 6.4.5 provides a summary of Monterey-induced changes on SWP operations and deliveries. See FEIR Subsection 13.2.4.1 for a discussion of whether the altered allocation Monterey Amendment eliminated drought safeguards. Some M&I contractors received a reduction in average annual deliveries in critically dry years. However, the Monterey Agreement was a negotiated agreement that included a number of provisions that may offset this reduction. SWP contractors pay for the costs of the SWP regardless of how much water they receive. See DEIR Subsection 2.6.2 on page 2-19. There would not be a negative financial impact to the SWP or to the people of the state of California of eliminating the "urban preference" in Article 18(a). Even if there were a negative economic impact for some SWP contractors, it would be difficult, if not impossible, to trace where, how, and when the funds not given to the Department are distributed or used by each SWP contractor.

## Response to Comment 36-9

The comment claims that with the elimination of Article 18(b), the Department gave up its ability to declare permanent shortages. It also states that the easiest way for all stakeholders to understand that there will be less water coming from the Delta is to invoke Article 18(b) and reduce the contractors' entitlements. See FEIR Subsection 13.2.2 on the invocation of Article 18(b). See also Response to Comment 36-9 in FEIR Chapter 9.

## Response to Comment 36-10

The comment states that numerous housing projects have been approved in the Santa Clarita, Antelope Valley, and San Bernardino areas, several of which rely on the KCWA-Castaic Lake WA transfer and are currently the subject of litigation, based on false expectations that water will be available at the "entitled" amount. The comment argues Article 18(b) and Article 21(g)(1) would result in reduced demand for SWP water, particularly Article 21 water. See FEIR Subsection 13.2.2 on invocation of Article 18(b). See Response to Comment 36-10 in FEIR Chapters 8 and 9. See also Response to Comment 36-10 in FEIR Chapters 8 and 9.

## Response to Comment 64-7

The comment asks how area of origin impacts will be monitored. The Department discusses how area-of-origin demands are not affected by the Monterey Amendment. See FEIR Subsection 13.2.5, and FEIR Chapter 5, Subsection 5.2.2.3.4 on area of origin water use. See also Response to Comment 64-7 in FEIR Chapter 7.1 on the DEIR did not find any significant impact of the proposed project on ground water in Butte County.

## Response to Comment 64-27

The comment notes that over the ten years reflected in DEIR Tables 6-8 and 6-9, agricultural contractors received 412,000 AF more Table A than compared to the baseline. The comment then claims that this has increased the "take" from the Delta.

This is true that agricultural contractor received approximately 400,000 AF more Table A water due to the effects of the Table A transfers and retirements and altered water allocation procedures (see DEIR Table 6-9). This increase did not affect the Delta. The total available supply from the Delta as a result of Tale A transfers and retirements and altered water allocation procedures under the Monterey Amendment did not change, but how that water is allocated did change. Some staff-initiated corrections have been made to Tables 6-8 and 6-9 (referenced in the comment) and are included as text changes in FEIR Chapter 2. The changes do not affect that conclusion that the deliveries to agricultural contractors increased and deliveries to M&I contractors decreased. See FEIR Subsection 13.2.4 on how the Monterey Amendment provided more flexibility to M&I contractors, and how M&I contractors have equal priority to Article 21 water and FEIR revised Tables 6-8 and 6-9 and accompanying text revisions in FEIR Chapter 2.

As discussed in FEIR Subsection 14.2.5.2, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta and have no impact on Delta fisheries resources. The only change resulting from the Monterey Amendment that has the potential to cause an adverse impact on Delta fisheries is the implementation of the water supply management practices. The DEIR recognizes that implementation of the water supply management practices facilitated by the Monterey Amendment could possibly result in longer periods of sustained Delta export pumping relative to the baseline at certain times from November through March (see DEIR Impact 7.3-5) when water is available to be exported by the SWP within permitted levels in compliance with State and federal regulatory permits and other requirements, in effect at the time of pumping, that provide protection for the Delta aquatic environment, including for water quality, listed species and other aquatic resources.

With regard to past impacts (1996 to 2004), the DEIR found that the water supply management practices increased Delta exports and reduced Delta outflow by a cumulative total amount of 44,000 AF compared to the baseline scenario, equal to 0.03 percent of total Delta outflow during that nine-year period (DEIR page 7.3-74) and concluded that this increase was less than significant. The Department reviewed the information in the DEIR in light of today's current knowledge about the special-status species and this review confirms the conclusions of the DEIR that the increases during this period were less than significant. See FEIR Subsection 15.2.2 for discussion of the water supply management practices and Subsection 7.2.2.1.3 for a discussion of the potential impacts in the Delta resulting from the practices. The historical operations analysis on which this conclusion is based did not include the effects of the permanent Table A transfers, which likely decreased deliveries in some years between 1996 and 2003. This decrease is likely because some of the M&I contractors receiving the transfers

had less immediate demand for the water than the agricultural contractors that transferred Table A amounts.

### Response to Comment 64-28

The comment requests that the FEIR discuss the impact of the Wanger Decision. The Wanger decision is discussed in this FEIR in Subsection 7.2.2.1.1 on the current and changing regulatory environment. Regardless of what alternative the SWP is operating under it would have to operate to comply with all environmental standards, including the ones established by the court in the Wanger decision or in current or future biological opinions. The result of more stringent environmental standards will be increased outflow and reduced deliveries to SWP contractors in all water-year types for all alternatives. See FEIR Subsections 7.2.2.1.3 and 6.2.2 on how changing regulations, like other future conditions that change may have the potential to influence the "environment" in which the proposed project operates and may affect the magnitude of impacts of the proposed project on environment. See also FEIR Subsection 13.2.3.

### Response to Comment 65-5

The comment asks about the Wanger Decision and implications for urban preference and the impact to urban areas. See Response to Comment 64-28 and FEIR Subsections 13.2.3 and 13.2.4.1. See also Response to Comment 64-28 in FEIR Chapter 7.2.

### Response to Comment 65-18

The comment states that farmers should study how much water has been transferred from a water drought reliability and unreliable supply into an annually used water supply as a result of the amendments. See FEIR Subsection 13.2.4.1.

### Response to Comment 65-19

The comment claims that the use of Article 21 and the urban sharing of water shortages during dry years has led to "drought hardening." See FEIR Subsection 13.2.4.1.

### Response to Comment 65-22

The comment suggests that Article 21 water may have been delivered to urban water users as trade-off for the loss of the urban preference. See FEIR Subsection 13.2.4.1. See also Response to Comment 65-22 in FEIR Section 7.2 on issues relating to fisheries and FEIR Chapter 14 on Article 21.

### Response to Comment 67-1

The comment discusses some of the history behind the SWP and the Monterey Amendment. See FEIR Subsections 13.2.1 and 13.2.2.

### Response to Comment 67-3

The comment states that the transfer of 130,000 AF of Table A from agricultural contractors to M&I contractors increased the ability of other SWP contractors to have a more reliable supply of water. See FEIR Subsections 13.2.1 and 13.2.4.1.

# 14. ARTICLE 21

# 14. ARTICLE 21

## 14.1 INTRODUCTION

This master response addresses comments on Article 21 of the long-term water supply contracts, pre- and post-Monterey Amendment. Comments covered issues such as: the Department's right to surplus water; pumping restrictions; the availability and priority of Article 21 water pre- and post-Monterey; effect on Delta pumping due to post-Monterey Article 21; the allocation of Article 21; and the allegation that Article 21 water has contributed to urban growth. This master response is organized by the following subtopics:

14.2.1 Article 21 Water Terminology
14.2.2 Rights and Restrictions on Pumping SWP Water
14.2.3 Types of Water and Demand
14.2.4 Availability of Article 21 Water
14.2.5 Monterey Induced Changes to Article 21

Some of the comments received on Article 21 are fully addressed by this master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Section 14.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include references to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This master response addresses the following comments: 16-4, 16-16, 16-18, 17-2, 17-3, 21-3, 21-12, 22-17, 30-25, 30-27, 30-50, 30-53, 30-144, 35-3, 36-15, 65-22, 66-3, and 66-25.

## 14.2 MASTER RESPONSE

### Summary

The term "surplus water" found in Article 21 of the SWP long-term water supply contracts has had a very specific meaning under these contracts, pre- and post- Monterey Amendment (see DEIR Subsections 2.5.4 and 4.4.1). It means "…project water available as determined by the State that is not needed for fulfilling contractors' annual [Table A] deliveries as set forth in their water delivery schedules furnished pursuant to Article 12 or for meeting project operational requirements, including storage goals for the current or following years." Such water is always surplus to the needs of the Delta, areas of origin, and other in-basin needs, including environmental or other regulatory requirements. When such water reaches the Delta it may be exported by the SWP and subsequently classified as Article 21 (sometimes called "surplus water") supply. See FEIR Subsection 14.2.1.

When exporting water from the Delta the Department must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, and regulations relating to Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other users. The

needs of other users include in-Delta users and the water rights of the areas of origin of Delta inflow. These requirements include applicable SWRCB orders, USACE permits, Biological Opinions and other regulatory constraints including any relevant judicial orders in effect at the time of the operation. They have established water quality and flow requirements and limits on the rate of export of water that can be pumped by the state and federal pumping plants. These regulatory requirements, however, do not affect how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported from the Delta.

The terms of the long-term water supply contracts, including the Monterey Amendment, do not determine how the Department will operate the SWP facilities to meet regulatory requirements, but determine how SWP supplies and costs are allocated among the contractors. The terms may also determine how exported water is managed and where SWP contractors might store SWP water (if it is to be stored) if they have been allocated sufficient SWP water to store after meeting current needs. To the degree that hydrologic and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. The Monterey Amendment cannot and does not change hydrologic conditions or regulatory requirements in effect at the time of export, including applicable permits and constraints to protect water quality and listed fish species. See FEIR Subsection 5.2.1.2.

Under the Monterey Amendment, “scheduled surplus water” was eliminated, “unscheduled water” in Article 21 of the long-term water supply contracts was renamed “interruptible water,” and when such interruptible supply is available is allocated on a pro-rata basis. The Department now calls such water Article 21 water. Article 21 water is one of more than 50 types of water classified on average by the Department for recovering costs and accounting for water under SWP operations. Multiple classifications of water are required to reflect different priorities for conveyance and storage, sources, purposes, ownership, and cost allocations. Article 21 water is an intermittent and unpredictable water supply. If San Luis Reservoir fills and other SWP storage facilities reach target levels, all SWP needs and regulatory requirements are being met, the Delta is in excess conditions and the SWP is permitted to continue pumping at rates that exceed current Table A demands, the Department will announce the availability of additional water, on a daily or weekly basis under Article 21. Contractors may then request delivery of Article 21 water when it is available if they can use or store the water. This water supply is intermittent and can be discontinued at any time if conditions warrant.

From the Department’s operational perspective, water pumped through Banks Pumping Plant consists of water to meet SWP requirements and water for current or future delivery to contractors and is essentially just SWP supply. However, once water is delivered to the contractors, it is classified as one of many “types” of water, such as Table A water, Article 21 water, Article 12(e) water, Article 14(b) water, exchange water, transfer water, and other types of water. The Department also accounts for SWP water used to meet recreation, fish and wildlife obligations of the SWP. Exported water is not classified until it is delivered to a contractor.

As discussed in FEIR Chapter 13, the Monterey Amendment eliminated the shortage priorities from Article 18(a). Water supply is now allocated among all contractors in proportion to each contractor’s Table A amount for that year, up to each contractor’s request for water, regardless of whether the water is for agricultural or M&I purposes. Therefore, any Table A water supply shortage is now shared proportionately among all contractors. As part of the Monterey negotiations, the priorities for receiving Article 21 water were also changed. M&I contractors who had lost a portion of SWP Table A supply due to elimination of the agricultural-first shortage in Article 18(a) would have equal priority for Article 21 water. When total requests for Article 21

water exceed available supply, it would be allocated in proportion to the Table A amounts of the requesting contractors. All water shortages and surplus were to be shared among all contractors in proportion to their Table A amounts.

Several comments claim that elimination of the priorities for Article 21 water has allowed M&I contractors the opportunity for urban growth. The growth-inducing impacts of the proposed project are discussed in Chapter 8 of the DEIR, and clarified and amplified in Chapter 8 of the FEIR. The Department agrees that the Monterey Amendment may have led to increases in delivery of Article 21 water for some M&I contractors. DEIR Tables 6-14 through 6-25 show changes in average annual deliveries of both Table A and Article 21 deliveries in different water-type years due to the altered allocation procedures and permanent Table A transfers.

Several comments indicate that the new Article 21 allocation procedures under Monterey increased export pumping from the Delta. The Monterey Amendment Article 21 allocation procedures have not influenced total deliveries south of the Delta (i.e. Banks pumping) in comparison to the baseline. As noted previously, the SWP contractors had access to Article 21 water prior to the Monterey Amendment. The new allocation procedures for south of Delta SWP contractors have merely shifted the percentage distribution of Article 21 deliveries between the agricultural and M&I contractors (North Bay Article 21 deliveries are insignificant).

### 14.2.1 Article 21 Water

Comments addressed in this subsection include: 16-4, 16-18, 17-2, 22-17, 30-25, and 66-3.

Some comments state that the Department has misled the public by renaming surplus water, while several other comments state that Article 21 water is not new water but water which has had various names.

Article 21 water is described in the DEIR, in Chapter 2, Subsection 2.5.4, in Chapter 4, Subsection 4.4.1, and in Chapter 6, Section 6.2. Changes in deliveries of Table A and Article 21 water resulting from the proposed project are discussed in Chapter 6, Section 6.4 and in Chapter 8.

The term “surplus water” found in Article 21 of the SWP long-term water supply contracts has had a very specific meaning under these contracts, pre- and post- Monterey Amendment (see DEIR Subsections 2.5.4 and 4.4.1). It means “…project water available as determined by the State that is not needed for fulfilling contractors’ annual [Table A] deliveries as set forth in their water delivery schedules furnished pursuant to Article 12 or for meeting project operational requirements, including storage goals for the current or following years.” Such water is always surplus to the needs of the Delta, areas of origin, and other in-basin needs, including environmental or other regulatory requirements. When such water reaches the Delta it may be exported by the SWP and subsequently classified as Article 21 (sometimes called “surplus water”) supply. See FEIR Subsection 14.2.1.

When exporting water from the Delta the Department must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, and regulations relating to Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other users. The needs of other users include in-Delta users and the water rights of the areas of origin of Delta inflow. These requirements include applicable SWRCB orders, Corps permits, Biological Opinions and other regulatory constraints including any relevant judicial orders in effect at the time of the operation. They have established water quality and flow requirements and limits on

the rate of export of water that can be pumped by the state and federal pumping plants. These regulatory requirements, however, do not affect how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported from the Delta. See FEIR Subsections 14.2.1, 14.2.3, and 7.2.2.1.3.

The terms of the long-term water supply contracts, including the Monterey Amendment, do not determine how the Department will operate the SWP facilities to meet regulatory requirements, but determine how SWP supplies and costs are allocated among the contractors. The terms may also determine how exported water is managed and where SWP contractors might store SWP water (if it is to be stored) if they have been allocated sufficient SWP water to store after meeting current needs. To the degree that hydrologic and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. The Monterey Amendment cannot and does not change hydrologic conditions or regulatory requirements in effect at the time of export, including applicable permits and constraints to protect water quality and listed fish species. See FEIR Subsection 5.2.1.2.

The long-term water supply contracts were entered into in the 1960's. In the early years of the SWP, contractual "surplus water" was called "scheduled surplus water" and could be requested and scheduled annually, and was intended to come from SWP reservoir storage. Later in the mid 1970's, Article 21 was amended to clarify that scheduled surplus water was to be offered first to SWP contractors for agricultural use or groundwater replenishment, then to SWP contractors for other uses. It could be scheduled for up to five years in advance. These priorities were intended to compensate, in part, for the shortage provisions in Article 18(a) that subjected agricultural contractors to greater reductions of SWP water during drought periods. See FEIR Chapter 13, Subsection 13.2.1. Prior to 1987, when SWP demands were generally below 2 million AF, the SWP could accommodate scheduled surplus water requests.

It was foreseen that once contractor requests for annual Table A amounts approached their maximum contract amounts, the Department could not offer a supply of scheduled surplus water on a reliable basis. At the time the priority for agricultural and groundwater uses was established, a provision was added that stated, "In providing for the delivery of surplus water pursuant to this article, the State shall refuse to deliver such surplus water to any contractor or noncontractor to the extent that the State determines that such delivery would tend to encourage the development of an economy within the area served by such contractor or noncontractor which would be dependent upon the sustained delivery of surplus water." In 1974, this provision was placed in section (g) of Article 21, entitled "Restrictions on Deliveries." Scheduled surplus water was scheduled mainly by agricultural contractors, and the intent behind the provision was to clarify that this supply would diminish in the future and contractors should not rely upon it for sustaining permanent crops, thus encouraging a "permanent economy." It was recognized that as Table A requests increased, SWP supplies would be used to meet Table A demands rather than supporting scheduled surplus deliveries.

Another category of water called "extra surplus water" was included in the SWP water supply contracts in 1980. It was later termed "unscheduled water" because it was not scheduled in advance but taken upon short notice when water available to be exported from the Delta became excess to SWP needs. This supply is intermittent and unpredictable (due to storms, runoff, snowmelt, soil characteristics, etc). Because "extra surplus water" was included in Article 21, Article 21(g)(1) was also applicable to this water supply.

Under the Monterey Amendment, "scheduled surplus water" was eliminated, and "unscheduled water" in Article 21 of the long-term water supply contracts was renamed "interruptible water."

When available, this “interruptible water” is allocated in proportion to the Table A amounts of requesting contractors. The Department now refers to such supply as Article 21 water. This contractual Article 21 water is water that is available to the SWP contractors after SWP purposes and other needs (in-Delta requirements, for example) have been met. If San Luis Reservoir fills and other SWP storage facilities reach target levels, all SWP needs and regulatory requirements are being met, the Delta is in excess conditions and the SWP is permitted to continue pumping at rates that exceed current Table A demands, the Department will announce the availability of additional water, on a daily or weekly basis under Article 21. Contractors may then request delivery of Article 21 water when it is available if they can use or store the water. This water supply is an intermittent and unpredictable water supply and can be discontinued at any time if conditions warrant (i.e. an example being after storms have moved through, runoff diminishes). A more detailed discussion of these conditions is presented on DEIR pages 6-5, 6-13, 6-14, and 6-29. The water that is pumped is water that has reached the Delta from a variety of upstream sources, such as upstream watershed runoff, reservoir releases, precipitation, and other waters.

Departmental publications, including the SWP Delivery Reliability Report and Notices to SWP contractors, make it clear that urban water suppliers and local government should not rely on this Article 21 water as a dependable annual supply of water, that contractors can take advantage of this supply if they have an immediate use for it or can store it in surface reservoirs or groundwater basins, but that in the absence of storage, Article 21 water is not likely to contribute significantly to local water supply reliability.

The Monterey Amendment eliminated Article 21(g)(1). Its original focus, scheduled surplus water, was no longer available, and interruptible water was recognized as unreliable and intermittent, thus eliminating the need for Article 21(g)(1). This chapter focuses on issues regarding Article 21 water in the context of current SWP operations under the long-term water supply contracts with the Monterey Amendment. Issues regarding the elimination of Article 18(b) and Article 21(g)(1) are discussed in FEIR Subsection 9.2.5.2.

### 14.2.2 Rights and Restrictions on SWP Delta Pumping

Comments addressed in this subsection include: 17-2, 21-3, 21-12, 22-17, 30-25, 30-27, 30-53, 30-144, 36-15, 65-22, and 66-25.

Some comments question the Department’s right to export water from the Delta, including surplus water. Another comment says that the DEIR should discuss the public trust including any water rights permits from the SWRCB that allow pumping from the Delta. This section discusses the SWP’s overall right to pump water from the Delta as well as restrictions on that pumping.

#### 14.2.2.1 General Background

The California Constitution requires the water resources of the State to be put to beneficial use. It also prohibits waste and unreasonable use of water and requires reasonable and beneficial use of water. (California Constitution, Article 10, Section 2). This same language is also found in Section 100 of the CWC which states:

> It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such

> water is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.
>
> The right to water or to the use or flow of water in or from any natural stream or watercourse in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. (Stats.1943, c.368, p.1606).

In addition, in California, water uses are also subject to the public trust which holds that certain resources are above private ownership and reside in the Trust of government for the benefit of the People and that it is the duty of government to administer these resources to the highest public interest. When issuing water rights determinations, the SWRCB considers the public trust, waste and unreasonable use, and beneficial uses in administering its water right's authority. See *National Audubon Society*.

As discussed in "Bulletin No. 3: The California Water Plan," dated May 1957 and incorporated by the California legislature into CWC §12200, "…the State Water Resources Development System (commonly called the SWP) has as one of its objectives the transfer of waters from water-surplus areas in the Sacramento Valley and the north coastal area to water-deficient areas to the south and west of the Sacramento-San Joaquin Delta via the Delta; water surplus to the needs of the areas in which it originates is gathered in the Delta, and thereby provides a common source of fresh water supply for water-deficient areas." It was recognized early in the development of the California water plan that most of California's precipitation occurred in the northern portion of the state, but that most of the water demand occurred in the southern portion of the state. This reality has not changed, and as stated in the DEIR (page 6-2), the SWP is operated to optimize the capture of water in the Delta, as limited by the capacity of SWP facilities (pumping plants, aqueducts, and storage reservoirs), the availability of water, and the need to maintain compliance with environmental and other regulatory requirements, including constraints for protection of water quality and endangered species and other aquatic resources in the Delta. See FEIR Appendix E, Part 3 (Leahigh Declaration, May 15, 2008), Sections II and III on Regulatory Restrictions on Oroville and Delta Operations for more discussion on regulatory restraints on SWP operations.

### 14.2.2.2 SWP Water Rights Permits

Several comments questioned the Department's right to export surplus water from the Delta and the Department's water rights. The DEIR recognizes on page 6-2 that the SWP is operated pursuant to water rights issued by the State Water Resources Control Board (see also DEIR pages 7.1-21 through 7.1-29 for more detail on SWRCB water quality standards and SWP water rights decisions). The SWRCB is responsible for issuing and administering water rights in California issued after 1914. The Department and Reclamation hold water rights issued by the SWRCB regulating the operation of the SWP and the CVP. In 1978, the SWRCB issued Water Rights Decision 1485 (D-1485) adopting the Bay/Delta Water Quality Control Plan and modifying the terms and conditions of the Department and Reclamation permits, making the SWP and CVP solely responsible for meeting the water quality objectives of the water quality control plan. D-1485 established minimum flows in the Delta and limited exports of water by the SWP and CVP. D-1485 superseded earlier water rights decisions for SWP and CVP operations in the Delta. Various interests filed lawsuits challenging D-1485. In 1986, the appeal court (United States v. State Water Resources Control Board (1986) 182 Cal.App.3d 82) affirmed the SWRCB's broad authority and obligation to establish water quality objectives and set water rights permit terms that provide reasonable protection to the beneficial uses of Delta waters.

The court also held, however, that the Board erred in not taking suitable regulatory action against other users as well as the CVP and SWP.

In 1987, the SWRCB began hearings to adopt new Delta objectives and a new water rights decision. The SWRCB adopted new water quality and flow objectives in 1995 as part of the 1995 Bay-Delta WQCP and a new water rights decision (D-1641) implementing the 1995 WQCP, was issued in December 29, 1999 (revised March 15, 2000). Prior to that time, from December 1995 through December 1999, the SWP and CVP voluntarily operated to meet the new objectives. D-1641 was the subject of an EIR prepared by the SWRCB. D-1641 and the Implementation EIR prepared by the SWRCB were challenged by numerous parties. In 2006 the Third District Court of Appeal, issued a decision on the consolidated cases affirming the validity of D-1641 and the Implementation EIR (State Water Resources Control Board cases (2006) 136 Cal.App.4th 674). Decision-1641, the Corps permit for the SWP, and the SWP biological opinions imposed to protect endangered species, set restrictive limits and standards on the SWP and CVP export operations from the Delta, regardless of how the exported water was eventually classified by these water projects (Table A, Article 21, or other classifications).

### 14.2.2.3 Pumping Restrictions from the Delta

Several comments indicate that the Department was pumping more Article 21 water post-Monterey, or asked under what rights the Department could pump water from the Delta. Pumping limits applicable to Banks Pumping Plant are summarized on page 6-2 of the DEIR. Pursuant to the water right permits issued to the Department for the operation of the SWP, the rate of diversion for export through the Delta is not to exceed 10,350 cfs, although Aqueduct capacity below Banks Pumping Plant physically limits exports to 10,300 cfs. In addition, a permit issued by the Corps under Section 10 of the Rivers and Harbors Act limits the diversion rate at Clifton Court Forebay to a three-day average of 13,250 AF per day. This export volume is equal to an average daily export rate of 6,680 cfs. From December 15 to March 15, this rate may be increased by one-third of the San Joaquin River flow when its flow exceeds 1,000 cfs. Additionally, permission was obtained from the Corps to increase the base diversion rate by 500 cfs, to 7,180 cfs for the months of July, August, and September, for use by the EWA program through September 30, 2008. An application for extension of the permit is pending Corps approval (see DEIR Subsection 6.3.2).

All diversions of water from the Delta by the SWP are further limited by other provisions of D-1641 and by limitations imposed by other federal and state laws that are in effect at the time, including endangered species and area of origin laws. The current status of endangered species regulation, including recent court and regulatory agency decisions, is discussed in FEIR Chapter 7, Subsection 7.2.2.1 on Fisheries Environmental Compliance.

FEIR Subsection 14.2.4 discusses the availability of Article 21 water with the Monterey Amendment. FEIR Subsection 15.2.3 discusses the fact that most increases in pumping since the implementation of the Monterey Amendment are not related to the Monterey Amendment.

### 14.2.2.4 SWP Operations and Contractor Requests

This subsection provides some background on SWP operations, supply, and contractor requests to help clarify the context in which different types of water are requested and delivered to SWP contractors. For more detail on SWP operations, see FEIR Appendix E, Part 3 (Leahigh Declaration, May 15, 2008). As discussed in the DEIR Section 6.2.1, nearly all of the SWP's water supply is exported from the Delta, and is comprised of unregulated Delta inflow and releases from Oroville Reservoir, the primary SWP conservation facility located upstream of

the Delta. Conversely, about 97 percent of the demand for SWP water is located south of the Delta. The Department's ability to export water from the Delta and convey water from Lake Oroville to contractors south of the Delta is constrained by the physical characteristics of the Delta, environmental regulations, and the capacity and operational constraints of SWP storage and conveyance facilities. Within these constraints, the SWP is operated to optimize the capture of water in the Delta, maximize the usable supply released to the Delta from Oroville storage, and maximize the intake allotment of Clifton Court Forebay at the maximum permitted rate as much of the time as possible to meet SWP and contractor demands. As long as hydrologic and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. The diversion of water into Clifton Court Forebay for SWP pumping at Banks Pumping Plant under Department water rights is controlled by SWRCB D-1641, and permits issued by the Corps under Section 10 of the Rivers and Harbors Act, applicable Biological Opinions, and other regulatory constraints.

San Luis Reservoir is the Department's primary water supply storage facility south of the Delta. San Luis Reservoir is a joint SWP and CVP facility in which storage is shared about equally. The SWP's share is used to store water pumped from the Delta at Banks Pumping Plant generally during the relatively wet winter and spring seasons when the available supply exceeds contractors' current demands. Water is later released from San Luis Reservoir to the California Aqueduct for delivery to contractors, generally in the late spring, summer and fall, when Delta inflow is lower and export pumping at Banks is insufficient to meet contractors' peak demands.

The Department attempts to fill its share of San Luis Reservoir as early in the water year (which begins October 1 and ends September 30) as it can. The reservoir is usually filled in the winter and spring. Once the SWP's share of San Luis Reservoir is full and other SWP storage facilities south of the Delta are full or at their storage targets, the Department generally announces the availability of an additional water supply, on a temporary and interruptible basis under Article 21. Contractors may request delivery of Article 21 water if they can put it to direct beneficial use or store it for future use in their service areas.

Once the south-of-Delta SWP storage reservoirs are full or at storage targets, the contractors are taking all the SWP water they can accept (i.e., Table A, Article 21 water, and carryover), and Banks Pumping Plant is not being used to convey non-project water, then the amount of water taken into Clifton Court Forebay may be cut back to just balance south of Delta SWP deliveries. At this time, Delta outflow increases by the amount of the intake decrease at Clifton Court Forebay. At this time, Banks Pumping Plant operations may be called "demand limited" rather than "supply limited."

As discussed above in Subsection 14.2.1 and 14.2.4, the determination of whether water is available for export from the Delta is limited by the Department's water rights and by limitations imposed by other federal and state permits and laws in effect at the time, including endangered species and area of origin laws. Water available for SWP Delta exports is comprised of water to meet contractors' requests and water to meet SWP purposes, including refilling SWP storage and providing SWP water for recreation, and fish and wildlife obligations of the SWP.

As discussed in DEIR Subsection 6.2.3 (page 6-5), contractors provide the Department with their water requests early in the water year. These requests are based on the contractors' estimates of the supplies they anticipate they will require to meet their expected water demands or needs, considering all other sources of water available to them. The Table A amounts in most SWP contracts reached a maximum in the early 1990's. However some contractors did not request their full Table A amounts until the early 2000's. In 2001 and from 2003 to the present, all SWP contractors have been requesting delivery of their entire Table A amounts

every year and these full requests are likely to prevail through 2020 and beyond. This demand increase is independent of the changes that are a part of the proposed project. DEIR Subsection 2.4 (page 2-9) and 6.3.1 (page 6-12). See also FEIR Subsection 14.2.2.3.

Contractor Table A requests are made before the Department or the contractors know how much Table A will be available of if Article 21 water will be available. Initial Table A water delivery schedules (i.e. requests) are first made by October 1 at the beginning of the water year for the following calendar year deliveries. The initial allocation announcement is made by December 1. As winter storms add to the snowpack and provide added runoff, Table A allocations are increased to reflect added water supply availability.

### 14.2.3 Types of SWP Water and Demand

Comments addressed in this subsection include: 30-25, 30-27, and 30-144.

This subsection points out and clarifies that the Department pumps many different types of water based on SWP and contractor needs. Article 21 water is one of more than 50 types of water classified on average by the Department for recovering costs and accounting for water under SWP operations. Multiple classifications of water are required to reflect different priorities for conveyance and storage, sources, purposes, ownership, and cost allocations.

From the Department's operational perspective, water pumped through Banks Pumping Plant consists of water to meet SWP requirements and water for current or future delivery to contractors and is essentially just SWP supply. However, once water is delivered to the contractors, it is classified as one of many "types" of water, such as Table A water, Article 21 water, Article 12(e) water, Article 14(b) water, exchange water, transfer water, and other types of water. The Department also accounts for SWP water used to meet recreation, fish and wildlife obligations of the SWP.

It has been suggested that because of the changes in Article 21 priorities under Monterey, the demand for Article 21 increased. DEIR Subsection 2.5.1 states, "Table A amounts in each contractor's SWP long-term water supply contracts ramped up over time until they reached a maximum Table A amount. The contracts were structured to reflect increasing population and water demand, estimated by the Department, and sequential completion of the SWP facilities." For most contractors, Table A contract amounts reached their maximum levels in the early to mid-1990s, as shown in DEIR Table 2-5, prior to the Monterey Amendment. Therefore, when contractors are allocated less than their full Table A, it is likely that some contractors will try to acquire supplemental water. Article 21, if available, is an additional SWP water supply.

Exported water is not classified until it is delivered to a contractor. Contractors submit monthly schedules for operations planning purposes supplemented by weekly schedules to the various field offices. The amounts and types of water requested and delivered depend on demands or needs, timing of those needs, and how the contractors manage their various sources of water. It is not until after the end of a month that the Department begins to classify or label the various water types delivered during that month. Classification and reclassification accounting may continue for some months beyond the end of the month in which actual delivery occurred to reflect the individual circumstances of deliveries. Please see DEIR Subsections 6.2.3 and 6.2.4 on pages 6-4 through 6-9, FEIR Chapter 13, Subsection 13.2.2.2, and FEIR Chapter 15, Subsection 15.2.3, for more discussion on contractor demands.

Regardless of which water types are available a contractor will request water to meet a need or demand. For example, if Article 21 water was unavailable, a contractor might request or use

another type of water. If Article 21 water is available, a contractor might directly use Article 21 water in its service area or store Article 21 water for later use. If Article 21 water is not available and Table A supply cannot meet the contractor's demands, a contractor might supplement its water supplies by utilizing other water management options, such as seeking non-SWP transfer water from a willing seller or withdrawal of its banked groundwater. In either case, the Department's classification of the water does not change the contractor's total need.

### 14.2.4 Availability of Article 21 water

Comments addressed in this subsection include: 16-18, 17-2, 17-3, 21-3, 21-12, 22-17, 30-25, 30-27, 30-53, 35-3, and 65-22.

Several comments indicated that the availability of Article 21 water changed due to the Monterey Amendment. This is not the case. In order to pump Article 21 water, the following conditions must be met. As discussed above in FEIR Subsection 14.2.1, these conditions have not changed as a result of the Monterey Amendment. If San Luis Reservoir fills and other SWP storage facilities reach target levels, all SWP needs and regulatory requirements are being met, the Delta is in excess conditions and the SWP is permitted to continue pumping at rates that exceed current Table A demands, the Department will announce the availability of additional water, on a daily or weekly basis under Article 21. Contractors may then request delivery of Article 21 water when it is available if they can use or store the water. This water supply is intermittent and can be discontinued at any time if conditions warrant (see DEIR pages 2-6 and 6-5).

Availability of Article 21 water in the Delta is dependent on hydrology and the allowable rate of export from the Delta. For example, as noted in DEIR Section 6.4.2.1, Article 21 water was extremely limited by hydrology from 1988 to 1995 due to the 1987 to 1992 drought, and a dry year in 1994, with deliveries averaging 33,000 AFY during that period. However, due to more favorable hydrology from 1996 through 2005 available Article 21 water supply increased, and average deliveries were in excess of 163,000 AFY. This increase in available supply was not caused by the Monterey Amendment, but by changes in natural hydrologic conditions. See FEIR Subsection 15.2.3.3.

### 14.2.5 Monterey Induced Changes to Article 21

Comments addressed in this subsection include: 17-2, 17-3, 21-3, 21-12, 22-17, 30-25, 30-53, 35-3, 65-22, 66-3, and 66-25.

#### 14.2.5.1 Changes in Article 21 Priorities and Growth Opportunities

Several comments indicated that elimination of the priorities for Article 21 water has allowed M&I contractors the opportunity for urban growth. Prior to the Monterey Amendment, unscheduled water pursuant to Article 21 of the SWP water supply contracts had two delivery priorities. The first priority was for groundwater replenishment or for agricultural use in lieu of groundwater pumping, and the second priority was usage for pre-irrigation to increase soil moisture prior to planting. These priorities were intended to compensate, in part, for the shortage provisions in Article 18(a) that subjected agricultural contractors to greater reductions of SWP water during drought periods.

The Monterey Amendment eliminated the Table A shortage priorities from Article 18(a). Table A water supply is now allocated among all contractors in proportion to each contractor's Table A amount for that year, up to each contractor's request for water, regardless of whether the water

is for agricultural or M&I purposes. Therefore, any Table A water supply shortage is now shared proportionately among all contractors. As part of the Monterey negotiations, the priorities for receiving Article 21 water were also changed. M&I contractors who had lost a portion of SWP Table A supply due to elimination of the agricultural-first shortage in Article 18(a), would have equal priority for Article 21 water. When total requests for Article 21 water exceed available supply, it would be allocated in proportion to the Table A amounts of the requesting contractors. All water shortages and surplus were to be shared among all contractors in proportion to their Table A amounts.

The growth-inducing impacts of the proposed project are discussed in Chapter 8 of the DEIR, and clarified and amplified in Chapter 8 of the FEIR. The Department agrees that the Monterey Amendment may have led to increases in delivery of Article 21 water for some M&I contractors, with decreases in deliveries of Article 21 water to agricultural contractors, due in part to the change in priority for receiving such water. DEIR Tables 6-14 through 6-25 show changes in average annual deliveries of both Table A and Article 21 deliveries in different water-type years due to the altered allocation procedures and permanent Table A transfers and retirements. M&I contractors that did not purchase additional Table A amounts generally had lower Table A deliveries, and therefore, any additional Article 21 water they received partly offset the lower Table A deliveries in some water-type years. FEIR Table 8-3A shows the maximum amount of potential population growth that could be supported under the Monterey Amendment based on the estimated increase in average annual SWP deliveries due to allocation changes and Table A transfers and retirements in 2020. This table shows potential additional average annual deliveries and potential additional population, based both on Table A deliveries and on total deliveries including Article 21 water. It is possible that increased water supply under dry conditions, including that from storage outside the service area (one of the water supply management practices), could support some additional population. See FEIR Chapter 8, Subsection 8.2.4.

The growth-inducement potential discussed in Chapter 8 of the DEIR is conservative, and on the high side since it is based on conservative assumptions that assume all increased water would be used to support growth, and that in the absence of the proposed project no contractor would have been able to find alternative supplies (see DEIR Subsection 8.3.1). Even absent the elimination of the Article 21 priorities under Monterey, M&I contractors could still have received substantial amounts of Article 21 water which they could have banked to support dry year demands and thus contributed to growth if drought period supplies were a limiting factor. In addition, it is also likely that, in the absence of Monterey, the M&I contractors would have increased expansion of local groundwater and surface water programs for water supply storage. Therefore, storage of pre-Monterey Article 21 water within contractor service areas could also have potentially supported growth.

To the extent that climate change and future regulatory changes relating to fishery protection decrease the amount of water that can be pumped from the Delta, Article 21 water will be available less often and in lesser quantities, and therefore the average annual increase in Article 21 deliveries and the potential for additional population is likely to be less. The 2007 Reliability Report, which factors in climate change and more stringent regulatory conditions related to fishery protections, estimates that in dry years there would be no or very little Article 21 water available, and even in wet and above average years, there are a number of years when no Article 21 water would be available (see 2007 Reliability Report page 45-46).

Please see in this FEIR Chapter 6.2 on Changing Conditions and Chapter 8 Growth-Inducing Impacts. See also FEIR Chapter 9, Reliability of Water Supplies and Growth, for further discussion of Article 21 and issues of reliability and “paper water.”

### 14.2.5.2 Changes in Allocation of Article 21 and Effects on Delta Pumping

Several comments indicate that the new Article 21 allocation procedures under Monterey increased export pumping from the Delta. The Monterey Amendment Article 21 allocation procedures have not influenced total deliveries south of the Delta (i.e. Banks pumping) in comparison to the baseline. As noted previously, the SWP contractors had access to Article 21 water prior to the Monterey Amendment. The new allocation procedures for south of Delta SWP contractors have merely shifted the percentage distribution of Article 21 deliveries between the agricultural and M&I contractors (North Bay Article 21 deliveries are insignificant). This shift has also occurred with most of the Table A transfers, except for the Table A transfer from KCWA to Napa and Solano, which decreases the total Table A amounts south of Banks Pumping Plant. As can be seen in DEIR Table 6-19, this shift yields little change in total Table A and Article 21 deliveries to all SWP contractors (therefore little change in SWP Delta export pumping) under 2003 conditions with the proposed project and under the baseline scenario. DEIR Table 6-25 shows similar results for 2020 conditions. See also the discussion in DEIR Subsections 7.3-5 and 7.3-6 on the impacts of the proposed project on the Sacramento-San Joaquin Delta.

In summary, the DEIR does not show an increase in export pumping from the Delta as a result of the new allocation procedures for Article 21 water. See FEIR Subsection 13.2.2.2 for the discussion that altered water allocation procedures under Article 18(a) and permanent transfers of Table A amounts do not result in an increase in export pumping. See also FEIR Subsection 15.2.2, for the discussion that implementation of the water supply management practices facilitated by the Monterey Amendment could possibly result in increases in Delta export pumping and FEIR Subsection 15.2.3.3 for more discussion on how most increased Delta export pumping since implementation of the Monterey Amendment is due to factors other than the Monterey Amendment. See also FEIR Subsection 7.2.2.1.3 for discussion on how the only impacts to Delta fisheries and aquatic resources result from implementation of the water supply management practices and that any significant impacts are mitigated.

## 14.3 RESPONSES TO INDIVIDUAL COMMENTS

### Response to Comment 16-4

Comment 16-4 asks that the Department clarify that Article 21 water is not new water. See FEIR Subsection 14.2.1 which clarifies that Article 21 was part of the long-term water supply contracts prior to the Monterey Amendment, and that Article 21 deliveries do not represent new water. See FEIR Subsection 16.2.6 for operation of a state-owned KWB.

### Response to Comment 16-16

The comment sets forth the view of the parties with regard to the long-term water supply contracts. See FEIR Subsections 13.2.2.1 and 13.2.2.2. See also Response to Comment 16-16 in FEIR Chapter 5.

### Response to Comment 16-18

The comment suggests that the sixth sentence of the third paragraph on page 4-5 of the DEIR. In response, the Department notes that retaining the existing text except to substitute “offered to contractors” for the word “allocated” also makes the sentence accurate. The comment is correct as to the allocation of Article 21 water if requests exceed availability. Therefore, the sixth sentence of the third paragraph 3 on page 4-5 is revised to read follows:

> For signers of the Monterey Amendment, Article 21 water is allocated among contractors when requests for this water exceed the supply of Article 21 water available, in proportion to each requesting SWP contractors' annual Table A amount. ~~when the SWP's share of San Luis Reservoir is full, or projected to be full in the near term; other SWP reservoirs are full or at their storage targets, or the conveyance capacity to fill these reservoirs is maximized; the Delta is in "excess" condition (see Chapter 6); Table A deliveries are being fully met; and the Banks Pumping Plant has spare capacity.~~

FEIR Subsections 14.2.1 and 14.2.4 of this FEIR emphasize the fact that operational conditions for Article 21 pre- and post- Monterey did not change.

## Response to Comment 16-48

The comment requests that the second sentence of the second paragraph on page 6-2 of the DEIR be revised to clarify the rate at which diversions can be increased. The second sentence of the second paragraph on page 6-2 of the DEIR is revised to read as follows:

> … This diversion rate is normally restricted to 6,680 cfs as a three-day average inflow to Clifton Court Forebay, although at times of high San Joaquin River flows, the diversion rate can be increased by an amount equal to one-third of the flow in that river as measured at Vernalis ~~may be pumped in addition.~~ …

## Response to Comment 17-2

The comment claims that the DEIR does not adequately analyze changes to Article 21, and refers to Article 18(b) implementation and the use of Article 21 water. The DEIR does analyze changes to Article 21 and explains those changes in context with the history of the SWP, as does this FEIR Subsection 14.2.1. As noted in the DEIR, Article 21 existed prior to the Monterey Amendment. The Monterey Plus EIR considers the Table A allocation changes and Article 21 changes implemented by the Monterey Amendment, primarily the way Article 21 is allocated. The availability of a total supply of Article 21 water did not change due to the Monterey Amendment (see FEIR Subsection 14.2.4). See also FEIR Subsection 14.2.5.1 on Article 21 priorities pre- and post-Monterey, and Subsections 14.2.2.3 and 14.2.5.2 on pumping of Article 21. See FEIR Subsection 14.2.5.1 on Article 21 and Growth Opportunities

The comment implies that the Department should not include delivery of Article 21 water in the alternatives that included invoking Article 18(b). The Department disagrees that Article 21 water cannot be exported and delivered upon implementation of Article 18(b). See FEIR Subsection 13.2.2.

The comment also claims that contractors have become dependent on surplus water supplies. See Response to Comment 17-2 in FEIR Chapter 9.

## Response to Comment 17-3

The comment states that the DEIR does not analyze the ability of the SWP to divert water from the Delta given legal limitations on its operations. See FEIR Subsection 14.2.2 on the Department's water rights and other pumping restrictions and 14.2.5.2 on Changes in Article 21 allocation and effects on Delta pumping. To clarify, the Monterey Plus EIR it is an EIR on the Monterey Amendment induced changes, not an EIR on the SWP. The Amendment is an agreement among the Department and the SWP contractors about how water that is available to the SWP is allocated and delivered to M&I and agricultural contractors. The Department has

and continues to deliver SWP water to the SWP contractors in compliance with all State and federal environmental regulations. The available supply of Article 21 did not change under the Monterey Amendment (see FEIR Subsection 14.2.4). The EIR does analyze the changes caused by the Monterey Amendment to Delta pumping, and those impacts are discussed in the EIR. See FEIR Subsection 7.2.2.1.3 on impacts of the proposed project on the Delta and mitigation measures which reduce the impacts to a level that is not significant. The Department concurs that the ecological health of the Delta has been declining. See FEIR Subsection 5.2.3.2 for the relationship of the proposed project to other state water policy activities. A similar response has been provided to Comments 21-12, 30-53, and 66-25.

## Response to Comment 21-3

The comment claims that pumping of Article 21 water and Turnback Pool water since 1996 and under the Monterey Amendment is the cause of the decline of several species in the Delta. The Turnback Pool's historical impact on Delta exports was included in the analysis of the water supply management practices detailed in DEIR Appendix K. The DEIR identified a cumulative total increase in deliveries of about 44,000 AF attributable to the water supply management practices (which included the Turnback Pool) during the nine-year period from 1996 to 2004 compared to the baseline scenario. The Turnback Pool would provide little or no added water supplies based on the Department's analysis as described in DEIR Chapter 6, page 6-61. The use of the Turnback Pool has been declining and although some M&I agencies have gained some benefit from the pool most of the transfers through the pool have been from M&I agencies to agricultural contractors. See FEIR Subsections 15.2.2 for increase in deliveries resulting from the Monterey Amendment and Subsection 15.2.3 for whether the Monterey Amendment increased demand.

Although the increased deliveries included both Table A and Article 21 water, most of the water delivered in the past was Table A water. Future deliveries are also likely to be mostly Table A water, see DEIR Appendix F. The DEIR identifies the effects of the allocation and priority changes to Article 21, under then-current pumping restrictions. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See FEIR Subsection 14.2.2.2 on pumping under current water rights permits and Subsection 14.2.2.3 on pumping limitations from the Delta. The availability of Article 21 did not change due to the Monterey Amendment. See FEIR Subsection 14.2.4 on availability of Article 21 water pre- and post- Monterey, and Subsection 14.2.5.2 on the Monterey allocation of Article 21 and effects on Delta pumping. Also see FEIR Subsection 7.2.2.2 on timing of exported water.

## Response to Comment 21-12

The comment states that the DEIR does not discuss the Department's right to "so-called surplus water" and how the "definition of surplus comports with the ecological reality of the Delta." See FEIR Subsection 14.2.2 on the Department's water rights and other pumping restrictions and 14.2.5.2 on Changes in Article 21 allocation and effects on Delta pumping. To clarify, the Monterey Plus EIR it is an EIR on the Monterey Amendment induced changes, not an EIR on the SWP; The Amendment is an agreement among the Department and the SWP contractors about how water that is available to the SWP is allocated and delivered to M&I and agricultural contractors. The Department has and continues to deliver SWP water to the SWP contractors in compliance with all State and federal environmental regulations. The available supply of Article 21 did not change under the Monterey Amendment (see FEIR Subsection 14.2.4). The EIR does analyze the changes caused by the Monterey Amendment to Delta pumping, and

those impacts are discussed in the EIR. See FEIR Subsection 7.2.2.1.3 on impacts of the proposed project on the Delta and mitigation measures which reduce the impacts to a level that is not significant. The Department concurs that the ecological health of the Delta has been declining. See FEIR Subsection 5.2.3.2 for the relationship of the proposed project to other state water policy activities.

## Response to Comment 22-17

The comment asks that the Department develop a new definition of surplus water, and claims that until it is done the EIR is deficient. The comment also claims that the Monterey Amendment eliminated all the constraints on delivery of surplus water, such as Article 21(g)(1). In response, the Department points out that there are two separate meanings of surplus water in the context of this EIR: Article 21 surplus water as defined in Article 21 of the water supply contracts; and water in the Delta that is surplus to the needs of the Delta as defined by SWRCB D-1641, the applicable biological opinions under the ESA, and other regulatory constraints. The contractual definition of surplus water has been present in the SWP water supply contracts since the beginning of the SWP. The amount of such contractual water supply is dependent on availability of water in the Delta, SWP operations, and contractor demands. The availability of Article 21 did not change as a result of the Monterey Amendment; see FEIR Subsection 14.2.4. It is pumped under the requirements and regulations set for the Delta (see FEIR Subsection 14.2.2). What changed is the way in which it is shared among the contractors. Lastly, the development of a new definition of contractual Article 21 surplus water is really a comment directed towards the operation of the SWP as a whole. It would be a different project with different objectives and is outside the scope of the project description of the Monterey Plus EIR. See FEIR Subsection 5.2.1.2 on establishing objectives.

To clarify, FEIR Subsection 14.2.1 states that the scheduled surplus water category was eliminated in the Monterey Amendment. The name change applied to unscheduled water, which was renamed interruptible water. The name change was to clarify the lack of reliability this intermittent and interruptible water supply. The name change alone has not caused adverse environmental impacts.

The Department disagrees that the EIR is deficient, because it *did* consider the impacts caused by a change in Article 21 allocation rules. See FEIR Subsection 14.2.5.2 for the effects on Delta pumping caused by changes in allocation of Article 21.

The comment states that the DEIR should analyze the impact of the surplus provision in creating “paper water.” See FEIR Subsection 14.2.1 which discusses the history of Article 21(g)(1), and FEIR Subsection 14.2.5.1 on Article 21 changes in Article 21 priorities and opportunities for growth. See also FEIR Subsection 8.2.4 for a discussion of the growth inducing impacts of the water supply management practices of the proposed project.

The comment also appears to suggest that the EIR should compare the effects of using surplus water under the Monterey Amendment with “the original contract.” The no project alternatives show the effects of the pre-Monterey “original” long-term water supply contracts. See DEIR and FEIR Chapter 11 on alternatives including why reduced water exports is not a feasible alternative.

The comment questions the elimination of Article 21(g)(1). See Response to Comment 22-17 in FEIR Chapter 9.

## Response to Comment 30-25

The comment claims that increased demand for Article 21 water was created by the "removal of limitations on access to storage facilities and through the Turnback Pool. As noted in FEIR Chapter 15, Subsection 15.2.1, the water supply management practices and water transfers improve reliability and flexibility of SWP water supplies in conjunction with local supplies. Storage outside of service area is one of these practices. The Department addresses the impacts of all of the water supply management options (which include the Turnback Pool) in DEIR in the relevant resource areas in Chapter 7. For a summary of impacts, see the Executive Summary on page ES-5 under the heading "Potentially Significant Mitigable Impacts." See also FEIR Subsection 15.2.2 on whether the water supply management practices increased deliveries on 15.2.3 on potential increases in demand.

As described in DEIR Chapter 6 on page 6-61 the Turnback Pool alone would provide little or no added water supplies to M&I contractors based on the Department's analysis (see Response to Comment 21-3). The use of the Turnback Pool has been declining, and although some M&I contractors have gained some benefit from the Pool most of the transfers through the Pool have been from M&I contractors to agricultural contractors. See Response to Comment 21-3. See also FEIR Subsection 15.2.6.

The comment also infers that "capacity" for Article 21 water was increased. This issue was extensively evaluated for the DEIR. The Monterey Amendment did not change the availability of Article 21 or the pumping constraints for pumping Article 21 water from the Delta; see FEIR Subsection 14.2.2, especially 14.2.2.3 and 14.2.4.

The comment claims that the Monterey Amendment removed constraints that would have limited demand for Article 21 water. Regardless of the Monterey Amendment, when contractors are allocated less than their full Table A, it is likely that some contractors will try to acquire supplemental water. If Article 21 is available, it is an additional SWP water supply (see FEIR Subsection 14.2.3). The Department disagrees that the removal of Article 21(g)(1) has caused increased demands for Article 21 water. See FEIR Subsection 14.2.1 for the history of Article 21(g)(1), and FEIR Subsection 9.2.5.2 which discusses the fundamental unreliability of Article 21 water. See also FEIR Subsection 15.2.3 on whether the Monterey Amendment increased demand.

The comment also states that these provisions which allow the "contractors to sell their unused Table A amounts, acting as though the water resources of the state, which belong to the people, are actually the private property of the state. See FEIR Subsections 14.2.2 and 17.2.11.

## Response to Comment 30-27

The comment states that Article 21 is unsuitable for use as a prolonged source of supply and that depending on unreliable sources of water puts "people, businesses and the environment at significant risk." See FEIR Subsections 14.2.1 on terminology, 14.2.2 on restrictions on pumping SWP water, 14.2.3 on types of water and demand, 14.2.4 on availability of Article 21 water and 14.2.5 on Monterey induced changes to Article 21. See also Response to Comment 30-27 in FEIR Chapter 9.

## Response to Comment 30-50

The comment claims that the DEIR does not analyze the impacts resulting from the allocation changes to Article 21 water and the elimination of Article 21(g)(1). The DEIR does discuss the

impact of the priority and allocation changes to Article 21. As noted in FEIR Subsection 14.2.5.1, increases in Article 21 water for some M&I contractors who did not purchase additional Table A amounts did occur due to the Monterey Amendment. DEIR Tables 6-14 through 6-25 show changes in average annual deliveries of both Table A and Article 21 deliveries in different year types due to the altered allocation procedures and permanent Table A transfers. FEIR Subsections 15.2.1 and 15.2.3 discuss the potential for increased demand from the Monterey Amendment. DEIR and FEIR Chapter 8 discuss the potential for growth as a result of changes from the Monterey Amendment. FEIR Subsection 13.2.4 also discusses the reliability of contractor deliveries as result of changes to Article 18(a), including the effect on drought protection, “drought hardening” and the opportunity for growth.

The comment also claims that the transfer of the KFE property and storage outside service area coupled with the elimination of Article 21(g)(1) has altered contractor demand. As noted in DEIR Section 6.4.1, the KWB Lands represent new south of Delta storage primarily for KWCA that would not be available under the baseline scenario, and thus, could potentially increase deliveries and Delta diversions. Analysis of historical data was used to examine this possibility (DEIR Study No. 2). However, as noted in DEIR Subsection 6.4.1, a survey of users of the KWB Lands project indicated that between 1996 and 2004 and in the absence of the KWB Lands project, the users of the bank would have placed the available SWP water in other storage available to them. See also FEIR Subsection 16.2.7.

See also the Response to Comment 30-50 in FEIR Chapter 9 on the effect of the elimination of Article 18(b) and Articles 21(g)(1).

## Response to Comment 30-53

The comment notes that both the Turnback Pool and Article 21 water are typically available in the winter and spring and notes that the Pelagic Organism Decline in the Delta has occurred during these time periods. The Department notes that the use of the Turnback Pool has been declining as contractors have requested their full Table A amounts since 2001. See FEIR Subsection 15.2.6. The potential physical environmental impacts of the proposed project implementation were evaluated in Chapter 7 of the DEIR. Cumulative impacts were addressed in Section 10.1. See also FEIR Subsection 7.2 for more discussion on the effects of the proposed project on the Bay-Delta estuary, its fish and its ecosystems, and FEIR Section 10.1 for more discussion on cumulative impacts.

See FEIR Subsection 14.2.2 on the Department's water rights and other pumping restrictions and 14.2.5.2 on changes in Article 21 allocation and effects on Delta pumping. To clarify, the Monterey Plus EIR it is an EIR on the Monterey Amendment induced changes, not an EIR on the SWP. The Amendment is an agreement among the Department and the SWP contractors about how water that is available to the SWP is allocated and delivered to M&I and agricultural contractors. The Department has and continues to deliver SWP water to the SWP contractors in compliance with all State and federal environmental regulations. The available supply of Article 21 did not change under the Monterey Amendment (see FEIR Subsection 14.2.4). The EIR does analyze the changes caused by the Monterey Amendment to Delta pumping, and those impacts are discussed in the EIR. See FEIR Subsection 7.2.2.1.3 on impacts of the proposed project on the Delta and mitigation measures which reduce the impacts to a level that is not significant. The Department concurs that the ecological health of the Delta has been declining. See FEIR Subsection 5.2.3.2 for the relationship of the proposed project to other state water policy activities.

Lastly, the comment claims that M&I contractors would have more incentive to request more water using the provisions of the Monterey Amendment in order to restore their dry year shortage due to the change to Article 18(a). The Department acknowledges that an objective of the Monterey Amendment was to facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies (see FEIR Subsection 15.2.2).

See FEIR Subsection 14.2.5.1 which does discuss how the allocation of Article 21 water partly offsets the decrease in M&I contractors' Table A deliveries in some water-type years due to changed Table A allocations.

See also the Response to Comment 30-53 in FEIR Chapter 13.

## Response to Comment 30-144

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-144 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that subsequent drafts should analyze the elimination of Article 21(g)(1) and how it affected growth. The DEIR reflects changes made as a result of these and other comments. A portion of the comment is identical to Comment 30-50, and is answered in that response.

The comment also claims that contractors have shifted Table A water due to taking Article 21 water and that the DEIR should analyze this impact. First, the Department has reiterated through its Notices to Contractors for the Article 21 water supply program that the intent of the program is not to defer delivery of Table A water. Although the Department at some times has required contractors to take a base demand or a portion of their Table A, to some degree this required use of supply interferes with contractor decision-making process on how to use all of their available supplies through the year and when to use them. Additionally, it is recognized by both the Department and contractors that Article 21 water is an additional supply which can become available quickly due to winter storms for a short period of time. It can be delivered in lieu of Table A, in filling available storage as a type of "water insurance" in the event of a dry fall and a lower allocation in following years. However, at the time of delivery (typically January-March), the future hydrology is unknown. Therefore, there may be a shift in some Table A amounts due to the unknown future, such as in the event of a series of wet years back to back.

Additionally, the Department has not altered its methods of scheduling releases of water from Oroville Reservoir for export and storage in San Luis Reservoir in response to the Monterey Amendment. In any given year, the hydrology, storage targets for the reservoirs, Table A demands, prior year reservoir storage, fill date of San Luis Reservoir, and other operational factors independent of the Monterey Amendment determine the Department's operations for moving stored Oroville water through the Delta.

See FEIR Subsections 14.2.2.3 and 14.2.3 which discuss demands and the various water types to meet demands. See also Response to Comment 30-144 in FEIR Chapter 9.

## Response to Comment 35-3

The comment claims that Castaic Lake WA has stored a large amount of Article 21 water outside of its service area. It is true that Castaic Lake WA has stored water in the Semitropic WSD groundwater area, as tabulated in DEIR Table 6-26. However, the water stored by Castaic Lake WA in 2002 was Table A water, not Article 21 water (see the Department's Bulletin 132-03, page 124). In 2002, Castaic Lake WA only took delivery of 280 AF of Article 21 which was delivered for agricultural purposes from the Coastal Aqueduct. The Department also clarifies that the KWB Lands project and the Semitropic Water Storage Project are two different and independent water banking projects. Semitropic WSD is one of the participants in the KWB Lands project; however, Castaic Lake WA does not participate in the KWB Lands project.

Although the Monterey Amendment provided a consistent basis for the approval of out-of-service area water storage, the Department had approved out-of-service area deliveries for groundwater banking prior to the Monterey Amendment on a case-by-case basis (see DEIR Subsection 2.5.2).

Lastly, the Department notes that under the Water Conservation Bond Law of 1988 (CWC Section 12879), the Legislature found and declared that, "(a) There is a lack of local water projects in certain areas of the state where the demands of a growing population could exceed water supplies which could threaten the public health and impede economic and social growth; and… (e) Recharging groundwater basins is an effective way to maximize the availability of scarce water supplies throughout the state through the efficient management of recharge and extraction activities in groundwater basins, and by reversing the effects of historical overdraft."

Additionally, see FEIR Subsections 14.2.4 and 14.2.5.1 and Response to Comment 35-3 in FEIR Chapters 8 and 15.

## Response to Comment 36-15

The comment asks that the DEIR discuss public trust rights and obligations and disclose the water rights received from the SWRCB. The DEIR disclosed the water rights obtained from the SWRCB in Subsections 6.2.1 and 6.3.4, and in FEIR Subsection 14.2.2.2. See also FEIR Subsection 14.2.2.1 on the SWRCB consideration of the public trust.

See also Response to Comment 36-15 in FEIR Chapter 7.2.

## Response to Comment 65-22

The comment notes that the SWP has pumped large amounts of Article 21 water since 2000, and claims it had an effect on the Delta. The Department agrees that there have been large amounts of Article 21 water pumped during the period from 1996 to 2005. However the availability of Article 21 water to the contractors is dependent on hydrology and allowable pumping from the Delta. As noted in DEIR Subsection 6.4.2.1, Article 21 water was extremely limited by hydrology from 1988 to 1995 due to the 1987 to 1992 drought and a dry year in 1994, with deliveries averaging 33,000 AFY during that period. However, due to more favorable hydrology from 1996 to 2005, available Article 21 water supply increased, and average deliveries were in excess of 163,000 AFY. This increase in available supply was not caused by the Monterey Amendment, but by changes in natural hydrologic conditions (see FEIR Subsection 14.2.2.3 for pumping restrictions and Subsection 14.2.4 for operational conditions for Article 21 pre- and post- Monterey). See also FEIR Subsection 15.2.3.3 on how most increases in SWP deliveries since the Monterey Amendment was implemented are not the

result of the Monterey Amendment. See also Response to Comment 65-22 in FEIR Section 7.2 and FEIR Chapter 13.

## Response to Comment 66-3

The comment claims that the name change of Article 21 water under the Monterey Amendment has provided developers with a supply of unreliable water. The comment also claims that the removal of Article 21(g)(1) has lead to permanent economies like new housing developments. See FEIR Subsection 14.2.1, which discusses the history of Article 21 water and name changes of Article 21 water. As noted there, the name change applied to unscheduled water, which was renamed interruptible water. The name change was to clarify the unreliability of this intermittent and interruptible water supply. The name change alone did not cause impacts under CEQA. FEIR Subsection 14.2.1 also restates the history of Article 21(g)(1). FEIR Subsection 14.2.5.1 discusses proposed project induced changes to Article 21.

The provision of Article 21 water does not enable "water marketing." With the exception of the Department purchases of previously banked SWP water for EWA purchases, contractors are not allowed to sell any SWP water outside of the project without Department approval. The Department has not approved such requests. Water agencies do provide water to developments within their service areas. Such action does not constitute "water marketing."

See also Response to Comment 66-3 in FEIR Chapter 9.

## Response to Comment 66-25

The comment notes that the SWP has pumped large amounts of Article 21 water since 2000, and claims it had an effect on the Delta. As noted in FEIR Subsection 15.2.3.3, the increase in deliveries of Article 21 water during the period since 2000 is due primarily to wetter hydrology than in the preceding years.

The only change resulting from the Monterey Amendment that has the potential to cause increased exports and adverse impacts on Delta fisheries is the implementation of the water supply management practices. The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

The potential to increase the beneficial use of water that could be supplied by the SWP facilities, consistent with water quality and environmental constraints on facility operation, especially Delta exports, was one of the benefits perceived by the Department and many of the SWP contractors that negotiated the Monterey Amendment. This result is consistent with the objective of the Monterey Amendment to "facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies."

As water quality and environmental constraints on Delta exports change as outlined in DEIR Chapter 7, Subsection 7.1.2.4, and especially with regard to fishery protection as described in the this FEIR in Subsection 7.2.2.1.1 , the ability of the SWP facilities to meet the objectives of the proposed project will change. The 2008 Biological Opinion for delta smelt is more restrictive than previous constraints, and it, together with the February 2009 CDFG Incidental Take Permit for longfin smelt and the June 2009 NMFS Biological Opinion for salmonids, will add more limitations on the rate at which water is available for export to the SWP. Estimated future exports are expected to decrease and any resulting impacts are likely to be less under the regulatory restrictions in effect as of June 2009 and therefore no new environmental impact analysis is required. See FEIR subsections 7.2.2.1.1 and 7.2.2.1.3.

The availability of Article 21 water to the contractors is dependent on hydrology and allowable pumping from the Delta. As noted in DEIR Subsection 6.4.2.1 Article 21 water was extremely limited by hydrology from 1988 to 1995 due to the 1987 to 1992 drought and a dry year in 1994, with deliveries averaging 33,000 AFY during that period. However, due to more favorable hydrology from 1996 to 2005, available Article 21 water supply increased, and average deliveries were in excess of 163,000 AFY. Except for the cumulative total amount of 44,000 AF, these increases are not related to changes made as a result of the Monterey Amendment, but are the result of factors such as population increases; decreases in other water sources, such as the Colorado River due to the QSA; and wetter years which provide greater opportunities for Delta export pumping. See discussion in FEIR Subsections 6.3.2.1, 15.2.2, 15.2.3.1, and 15.2.3.3.

See FEIR Subsection 14.2.2 on the Department's water rights and other pumping restrictions and 14.2.5.2 on changes in Article 21 allocation and effects on Delta pumping. To clarify, the Monterey Plus EIR it is an EIR on the Monterey Amendment induced changes, not an EIR on the SWP. The Amendment is an agreement among the Department and the SWP contractors about how water that is available to the SWP is allocated and delivered to M&I and agricultural contractors. The Department has and continues to deliver SWP water to the SWP contractors in compliance with all State and federal environmental regulations. The available supply of Article 21 did not change under the Monterey Amendment (see FEIR Subsection 14.2.4). The EIR does analyze the changes caused by the Monterey Amendment to Delta pumping, and those impacts are discussed in the EIR. See FEIR Subsection 7.2.2.1.3 on impacts of the proposed project on the Delta and mitigation measures which reduce the impacts to a level that is not significant. The Department concurs that the ecological health of the Delta has been declining. See FEIR Subsection 5.2.3.2 for the relationship of the proposed project to other state water policy activities. See also FEIR Subsections 17.2.5.10, 17.2.6.1, 17.2.6.2, and 17.2.8.

# 15. WATER SUPPLY MANAGEMENT PRACTICES

# 15. WATER SUPPLY MANAGEMENT PRACTICES

## 15.1 INTRODUCTION

The following responses address comments on the water supply management practices that were facilitated by the Monterey Amendment. Comments covered areas including: contractors' abilities to receive water under the water supply management practices; claims that the practices increased demands; impact to the Delta by the water supply management practices; flexible storage operations; Turnback Pool impacts; storage outside a contractor's service area; carryover; and claims that the pre-Monterey water supply contracts did not allow storage outside service area or set limits as to how much could be stored.

The Master Response is organized by the following subtopics:

15.2.1 Summary of Water Supply Management Practices
15.2.2 Effect of Water Supply Management Practices on Deliveries
15.2.3 Water Supply Management Practices and Demand
15.2.4 Storage Outside a Contractor's Service Area
15.2.5 Flexible Storage
15.2.6 Turnback Pool
15.2.7 Transport of Non-project Water

Some of the comments received on the DEIR's analysis of the water supply management practices are fully addressed by this master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Section 15.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include references to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

This master response addresses the following comments: 16-6, 16-7, 16-10, 16-23, 16-24, 16-25, 16-28, 16-37, 16-39, 16-42, 16-49, 16-50, 16-60, 16-61, 16-94, 16-95, 21-14, 21-25, 22-18, 22-19, 30-34, 30-49, 30-51, 30-52, 30-80, 30-94, 30-95, 30-96, 30-97, 30-98, 30-99, 30-111, 30-112, 30-113, 30-114, 30-119, 30-121, 30-122, 30-123, 30-125, 30-126, 30-128, 30-132, 30-139, 30-141, 30-143, 35-3, 36-2, 64-30, 65-12, 66-16, 67-4, and 67-31.

## 15.2 MASTER RESPONSE

### Summary

The water supply management practices help meet one of the objectives of the proposed project which is to "facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies." These practices are: storage of water in SWP conservation facilities; storage outside of contractors' service areas; flexible storage in Castaic Lake and Lake Perris; a Turnback Pool for annual sale

of allocated Table A water among contractors; and transport of non-SWP water in SWP facilities.

Some of the water supply management practices were carried out under the long-term water supply contract as it existed before the Monterey Amendment. Storage outside the service area had been approved on a case-by-case basis and the Department was required by statute to transport water for others in SWP facilities when capacity is available to do so. The Monterey Amendment facilitated these practices and in some cases, established criteria for decisions. The DEIR environmental analysis, however, assumed that all of the impacts from these actions (except transporting non-project water) were new impacts attributable to the Monterey Amendment. This assumption provides a worst case analysis that would show the maximum impacts. Although the practices are analyzed together, the practices that have the greatest potential impact in the future are storage outside the contractor's service area and flexible storage. Although the Turnback Pool was used in the early years of implementation of the Monterey Amendment, it is not expected to be used much in the future. The provisions regarding transport of non-SWP water clarify terms and conditions, but do not result in any increases in deliveries.

The DEIR found that the proposed project had no significant past (1996 to 2003) impacts that were not mitigated to a level of less than significant. With respect to future impacts, the DEIR found that the water supply management practices, provided for in the Monterey Amendment, and the watershed improvement program for Plumas County, provided for in the Settlement Agreement, may have potentially significant impacts. The watershed improvement program is the only element of the Settlement Agreement determined to have potentially significant impacts. These impacts are considered relatively minor and no comments were received regarding these impacts.

As discussed in FEIR Subsection 14.2.5.2, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta and have no impact on Delta fisheries resources. The only change resulting from the Monterey Amendment that has the potential to cause an adverse impact on Delta fisheries is the implementation of the water supply management practices. The DEIR recognizes that implementation of the water supply management practices facilitated by the Monterey Amendment could possibly result in longer periods of sustained Delta export pumping relative to the baseline at certain times from November through March (see DEIR Impact 7.3-5) when water is available to be exported by the SWP within permitted levels in compliance with State and federal regulatory permits and other requirements, in effect at the time of pumping, that provide protection for the Delta aquatic environment, including for water quality, listed species and other aquatic resources.

The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

Any increase in Delta exports relative to baseline conditions may only occur within the limits of all permits and other regulatory constraints. The effect and mitigation of the added Delta export pumping attributable to the Monterey Amendment is discussed in FEIR Subsection 7.2.2.1. The ability to export water from the Delta is dependent on whether there is water available to be used by the SWP. Both hydrologic and regulatory constraints can affect the amount of water available and exports from the Delta are usually "supply-limited," meaning that SWP and contractor needs for water are more than the amount of water that is permitted to be exported.

Some comments claim that the Monterey Amendment increased demand for SWP water. While it is true that the water supply management practices have increased water deliveries from the Delta, comments that these practices have increased demand may simplify the interrelationship of SWP supplies with other imported and local supplies and increasing demand in the service area unrelated to the proposed project as a result of population growth and reduced water supplies from other sources. There are several reasons for the demand increases that result in estimated export increases in the model output (and in actual historical exports from 1996 to 2003) that are not related to changes made as a result of the Monterey Amendment. These increases are related primarily to increased requests for more water to meet increased service area needs. In addition, the SWP is usually able to pump much more water in wet years due to the availability of more exportable water in wet years than in dry years. The period 1996 through 2004 was an unusually wet period and as a result pumping rates were high. This situation would be the case with or without the Monterey Amendment.

Some comments indicate that the water supply management practices have led to increased demands for SWP water supplies from the Delta. While it is true that the water supply management practices have increased water deliveries from the Delta, comments that these practices have increased demand may simplify the interrelationship of SWP supplies with other imported and local supplies, increasing demand in the SWP service area unrelated to the proposed project as a result of population growth, and reduced water supplies from other sources.

Under the proposed project there is a potential for increased demands by some urban agencies as a result of Table A transfers and the water supply management practice to store water outside of SWP contractor service areas. That added growth increment is the sole factor of the Monterey Amendment that increased SWP contractor demand.

### 15.2.1 Water Supply Management Practices

Comments addressed in this subsection include: 21-14, 22-18, 30-121, 65-12, and 66-16.

As discussed in the DEIR Chapters 6 and 7, the water supply management practices help meet one of the objectives of the proposed project which is to facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies" (DEIR Section 4.3.1). These practices are described in the DEIR on page 4-7. They are:

- Storage of water in SWP conservation facilities (carry-over of SWP and non-SWP water as long as San Luis Reservoir does not fill)
- Storage outside of contractors' service areas
- Flexible storage – contractors' use of storage in Castaic Lake and Lake Perris
- A Turnback Pool for annual sale of allocated Table A water among contractors

- Transport of non-SWP water in SWP facilities

As discussed in Subsection 4.4.4 of the DEIR, flexible storage allows some contractors to increase reliability by borrowing stored SWP water in dry periods and local emergency situations; transport of non-SWP water in SWP facilities provides greater certainty and contractual terms for conveying water transfers in SWP facilities to SWP contractors; storage of water in SWP facilities and outside of contractors' service areas provides a uniform basis for contractors to increase their reserves in preparation for drought periods; and the Turnback Pool provides a uniform and pre-agreed basis for an annual transfer of allocated Table A water between SWP contractors when a contractor has more Table A supply than it can use or store in a given year.

Some of the water supply management practices were carried out under the long-term water supply contract as it existed before the Monterey Amendment. Storage outside the service area had been approved on a case-by-case basis and the Department was required by statute to transport water for others in SWP facilities when capacity is available to do so. See DEIR Subsection 2.5.2 for water transactions that the Department had approved prior to the Amendment. To the extent that the authority existed before the Monterey Amendment, the Amendment did not "enable" or "allow" these actions to occur. The Monterey Amendment facilitated these actions and, in some cases, established criteria for decisions. The DEIR environmental analysis, however, assumed that all of the impacts from these actions (except transporting no-project water) were new impacts attributable to the Monterey Amendment. This assumption provides a worst case analysis that would show the maximum impacts. Although the practices are analyzed together, the practices that have the greatest potential impact in the future are storage outside the contractor's service area and flexible storage. See FEIR Subsections 15.2.4 and 15.2.5. Although the Turnback Pool was used in the early years of implementation of the Monterey Amendment, it is not expected to be used much in the future. See FEIR Subsection 15.2.6. The provisions regarding transport of non-SWP water clarify terms and conditions, but do not result in any increases in deliveries. See FEIR Subsection 15.2.7.

The DEIR found that the proposed project had no significant past (1996 to 2003) impacts that were not mitigated to a level of less than significant. With respect to future impacts, the DEIR found that the water supply management practices, provided for in the Monterey Amendment, and the watershed improvement program for Plumas County, provided for in the Settlement Agreement, may have potentially significant impacts. The watershed improvement program is the only element of the Settlement Agreement determined to have potentially significant impacts. These impacts are considered relatively minor and no comments were received regarding these impacts. The water supply management practices may lead to potentially significant and unavoidable impacts on terrestrial resources as a result of the development of groundwater banks in Kern County other than in the KWB Lands and flexible storage provisions. They may also lead to potentially significant mitigable impacts on Delta fisheries resources. As discussed in this FEIR in Subsection 14.2.5.2, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta and have no impact on Delta fisheries resources. See DEIR, pages ES-4 to ES-5. See also FEIR Subsection 4.2.1.1.

The potentially significant impacts that could possibly result from the water supply management measures are:

- Construction of percolation ponds and other facilities for storage outside the contractor's service area could occur in groundwater banks, other than the KWB, and

could have significant adverse impacts on terrestrial biological and cultural resources. It is likely that these impacts can be reduced to a less-than-significant level by mitigation measures but this cannot be determined with certainty until project-level CEQA review is completed.

- Flexible storage practices allow water to be borrowed and replaced within five years. If contractors borrowed the maximum water permitted under the Monterey Amendment and did not replace it for an extended period of time it could cause significant adverse impacts for which no mitigation measures are practical or appropriate. Although this worst case scenario could occur, it is unlikely because it is in the interests of the Department, and the contractors that receive water from the two reservoirs, that borrowed water be replaced as soon as practicable. The terminal reservoirs fulfill their function best when they are kept full or close to full.
- The only change resulting from the Monterey Amendment that has the potential to cause increased exports and adverse impacts on Delta fisheries is the implementation of the water supply management practices. The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

The water supply management practices are described in detail in the DEIR, in Chapter 2, Subsection 2.5.2; Chapter 4, beginning with Subsection 4.4.4; and in Chapter 6 beginning at Subsection 6.4. The environmental impact analysis of the water supply management practices are detailed in DEIR Chapter 7, beginning at Subsection 7.1.3. With the exception of Dudley Ridge WD, use of the KWB Lands as a local groundwater storage facility is storage within the service area of KCWA. While the Monterey Amendment did not affect contractors' ability to store SWP water within their service areas, deliveries to storage in the KWB Lands are included in the analysis of the water supply management practices. However, it was determined that, absent the KWB Lands, KCWA could have stored all SWP water stored in the KWB Lands from 1995 through 2004 in other existing Kern groundwater storage projects, so these deliveries are assumed to also occur in the baseline. Several other SWP contractors have stored SWP water supplies outside their service area in the Semitropic WSD. This storage and storage by Dudley Ridge WD storage in the KWB Lands are included in the analysis of the water supply management practices (see DEIR Table 6-26). For discussion on the impact of the use of KWB Lands as a local groundwater storage facility by KCWA members, see Chapter 16.

Some comments indicate that the water supply management practices have led to increased demands for SWP water supplies from the Delta. While it is true that the water supply management practices have increased water deliveries from the Delta, comments that these practices have increased demand may simplify the interrelationship of SWP supplies with other imported and local supplies, increasing demand in the SWP service area unrelated to the

proposed project as a result of population growth, and reduced water supplies from other sources.

Under the proposed project there is a potential for increased demands by some urban agencies as a result the water supply management practice to store water outside of SWP contractor service areas. Table A transfers from agricultural contractors to urban contractors and altered allocation procedures were also analyzed to determine if they caused an added demand to the SWP. There was no change in total requests for Table A deliveries (except a small decrease prior to 2001 as the demand of the urban agencies that received Table A transfers caught up to the new supplies due to urban growth); therefore there are no delivery increases attributable to the Table A transfers or to altered allocation procedures. See FEIR Subsection 14.2.5.2. However the increased Table A deliveries to those M&I contractors that received Table A transfers could cause an increase demand for these contractors. The potential changes in demand for SWP water and the growth-inducing potential resulting from the water supply management practices and the Table A transfers are reflected and analyzed in FEIR Subsection 8.2.4. That added growth increment is the sole factor of the Monterey Amendment that increased SWP contractor demand. See the discussion in EIR Subsection 15.2.3.5 on whether the Monterey Amendment increased demand for SWP water.

### 15.2.2 Effect of Water Supply Management Practices on Deliveries

Comments addressed in this subsection include: 16-10, 21-14, 22-18, 30-49, 30-52, 30-80, 30-114, 30-121, 30-122, 30-123, 30-125, 30-126, 30-128, 30-132, 30-141, 30-143, 64-30, 65-12, and 67-4.

A number of comments focused on the fact the water supply management practices tend to increase the use of Table A and Article 21 supplies. The potential to increase the beneficial use of water that could be supplied by the SWP facilities, consistent with environmental and other regulatory constraints on facility operation, especially Delta exports, was one of the benefits of the Monterey Amendment. As long as regulatory and hydrologic conditions permit, the Department will pump available water from the Delta to meet contractor and operational needs regardless of the final classification of the water. Exported water is not classified until after it is delivered to a contractor. The increased amounts of water delivered to the SWP contractors as a result of the water supply management practices compared with the baseline are primarily Table A amounts, but may include other types of water, including Article 21 water. Types of water delivered to SWP contractors, including Article 21 water, are discussed in FEIR Subsection 14.2.3.

Any increase in Delta exports relative to baseline conditions must be in compliance with all permits and other regulatory constraints. The effect and mitigation of the increase is discussed in FEIR Subsection 7.2.2.1. The ability to export water from the Delta is dependent on whether there is water available to be used by the SWP. Both hydrologic and regulatory constraints can affect the amount of water available and exports from the Delta are usually “supply-limited,” meaning that SWP and contractor needs for water are more than the amount of water that is permitted to be exported.

When the analysis was begun in 2003, at the time of the NOP, it was decided that 1995 conditions would serve as the starting point for the analysis because 1995 was the last year before the Monterey Amendment came into effect. Two periods would be analyzed; 1995 through 2003, the period already experienced and for which historical data is available; and 2003 through 2020, the future viewed from 2003. Accordingly, CALSIM II was used to examine SWP deliveries under 1995, 2003 and 2020 conditions. See FEIR Subsection 6.1.2.1. Analyses

in the Resource Impact Sections in Chapter 7 were divided into two time periods: 1996 to 2003 (past impacts) and Future Impacts.

In addition to the analysis using CALSIM II, which primarily served to characterize the effects of the Table A transfers and retirements, analysis of historical data was used to characterize the effects of the water supply management practices. The various historical analyses started in 1996 when the Department began implementation of the Monterey Amendment and the analyses could have ended in 2003, only using data for the period through 2003. However, because, by the time the historical analyses were conducted, data from 2004, and sometimes 2005, were available it was decided to use the data from the later years to strengthen the analyses of the historical period in estimating impacts. It was concluded that the advantages provided by the longer period of historical analysis outweighed any disadvantage associated with differences in the periods of analysis. Thus Study 1 covered the period 1996 to 2005 and Study 2 covered the period 1996 to 2004.

In addition, Studies 3 and 7 formed the basis for extrapolating certain future impacts of the water supply management practices, and the added period of record was perceived by the Department as providing a better basis for such estimates. Thus Studies 2, 3, and 7 covered the period 1996 to 2004, and Study 1 and the historical portion of Study 6 covered the period 1996 to 2005. The use of added years of historical data in no way alters the baseline of analysis in the EIR, nor is it inconsistent with the 2003 baseline. See FEIR Subsection 6.3.1, Table 6.3-1. Impacts analyzed based on the historical data are included in the 1996 to 2003 analyses in the Resource Impact Sections in Chapter 7 since they cover essentially the same period of time.

## Analysis and Results

With regard to past impacts (1996 to 2004), the DEIR found that the water supply management practices increased Delta exports and reduced Delta outflow by a cumulative total amount of 44,000 AF compared to the baseline scenario, equal to 0.03 percent of total Delta outflow during that nine-year period (DEIR page 7.3-74) and concluded that this increase was less than significant. The Department reviewed the information in the DEIR in light of today's current knowledge about the special-status species and this review confirms the conclusions of the DEIR that the increases during this period were less than significant.

The DEIR also concluded that there was a small, but potentially significant, impact from the proposed project on fisheries due to future application of the water supply management practices as a result of increased Delta export pumping even though this increased pumping would be in compliance with current and future regulatory requirements. Assuming hydrologic conditions in the future are similar to those that occurred from 1996 to 2004, the DEIR (pages 6-63 and 7.3-69), concluded that water supply management practices could potentially increase SWP deliveries by a cumulative total of approximately 450,000 AF over a nine year period. This amounts to an average annual increase of about 50,000 AFY (or 1.6 percent of the average annual SWP deliveries) based on assumed operations under the 2003 regulatory baseline. The estimate of future project-related export pumping was based on historical events that occurred in 6 out of 9 years ranging from 20,000 AF to 132,000 AF.

This increase would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The net future increase in Delta exports is also likely to be less than the estimate for a variety of reasons unrelated to the Monterey Amendment, including full requests for Table A amounts by all contractors in 2001 and from 2003 to the present and therefore more in-service area use, drier average hydrologic conditions compared to the

relatively wet period used to generate the estimate, climate change, and new regulatory constraints on SWP Delta exports. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. The increased amounts of water delivered to the SWP contractors are primarily Table A amounts, but may include other types of water, including Article 21 water. See FEIR Subsection 15.2.2 for discussion of the water supply management practices and Subsection 7.2.2.1.3 for a discussion of the potential impacts in the Delta resulting from the practices and 7.2.2.2.2 regarding timing of exported water.

Although the increased deliveries included both Table A and Article 21 water, most of the water delivered in the past for storage outside service area was Table A water, and future deliveries are also likely follow this pattern. See DEIR, Appendix F.

When exporting water from the Delta the Department must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, and regulations relating to Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other users. The needs of other users include in-Delta users and the water rights of the areas of origin of Delta inflow. These requirements include applicable SWRCB orders, Corps permits, Biological Opinions and other regulatory constraints including any relevant judicial orders in effect at the time of the operation. They have established water quality and flow requirements and limits on the rate of export of water that can be pumped by the state and federal pumping plants. These regulatory requirements, however, do not affect how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported from the Delta. See FEIR Subsections 14.2.1, 14.2.3, and 7.2.2.1.3.

As water quality and environmental constraints on Delta exports change, especially with regard to fishery protection, the ability of the SWP facilities to meet the objectives of the proposed project will change. As part of the OCAP reconsultation process, the Department worked with Reclamation and the state and federal fishery agencies to develop measures to protect fishery resources and provide the basis for continued operation of the SWP Delta export facilities. These measures will provide the basis for providing protection for fisheries at the Delta export pumps. See DEIR Chapter 7, Subsection 7.1.2.4 and FEIR Subsection 7.2.2.1.1.

The amount of water available for allocation to SWP contractor in the DEIR was based on studies that included the environmental constraints in effect in 2003, including Corps permits and the water quality and flow objectives for the Delta promulgated by the SWRCB in Decision 1641. The more restrictive constraints imposed by the Wanger decision, and regulatory fisheries agencies were not included in the analyses. Therefore, the DEIR may overstate both the benefits to the SWP and the impacts on the Delta resulting from the proposed project. The more restrictive the constraints placed on SWP Delta exports, the less effective the water supply management practices will be in improving reliability and flexibility of SWP water supplies in conjunction with local supplies. Estimated future exports are expected to decrease and any resulting impacts are likely to be less under the regulatory restrictions in effect as of June 2009 and therefore no new environmental impact analysis is required. See FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3.

Some comments suggest that more water would be left instream without the Monterey Amendment. To the extent that the Monterey Amendment increases Delta exports, there would be a commensurate decrease in Delta outflow as described in DEIR Subsection 7.1.1 and FEIR Subsection 15.2.2. As noted in those sections, these changes would occur during periods of

high Delta outflow. There would be no change in in-stream flows tributary to the Delta other than the minor changes (0.15 percent or less) in Sacramento River and Feather River flows identified in DEIR Subsection 7.1.3 as a result of the Table A transfers, retirement, and revised allocation method. Eliminating the change in Delta exports caused by the proposed project would not result in additional water remaining in-stream for environmental benefits with the sole exception of the channels conveying water out of the Delta.

### 15.2.3 Water Supply Management Practices and Demand

Comments addressed in this subsection include: 21-14, 30-51, 30-52, 30-80, 30-121, 30-123, 30-125, and 67-4.

Some comments indicate that the water supply management practices have led to increased demands for SWP water supplies from the Delta. While it is true that the water supply management practices have increased water deliveries from the Delta, comments that these practices have increased demand may simplify the interrelationship of SWP supplies with other imported and local supplies, increasing demand in the SWP service area unrelated to the proposed project as a result of population growth, and reduced water supplies from other sources.

The potential changes in demand for SWP water and the growth-inducing potential resulting from the water supply management practices and the Table A transfers are reflected and analyzed in FEIR Subsection 8.2.4. That added growth increment is the sole factor of the Monterey Amendment that increased SWP contractor demand. See FEIR Subsection 15.2.3.5.

#### 15.2.3.1 Contractor Requests for Water

As discussed in FEIR Subsection 14.2.2.3, contractor requests for Table A water are made at the beginning of the water year before the Department or the water contractors know how much SWP or local water supplies are available. As discussed in DEIR Subsection 6.2.1 (starting on page 6-2), there are times (primarily in wetter periods) when Banks Pumping Plant operations are "demand limited," and the Department is able to pump enough water from the Delta to meet SWP needs and meet all contractor demands or requests without maximizing its allowed pumping capability at Banks.

However some contractors did not request their full Table A amounts until the early 2000's. In 2001 and from 2003 to the present, all SWP contractors have been requesting delivery of their entire Table A amounts every year and these full requests are likely to prevail through 2020 and beyond. This demand increase is independent of the changes that are a part of the proposed project. DEIR Section 2.4 (page 2-9) and 6.3.1 (page 6-12). Except for the cumulative total amount of 44,000 AF, these increases are not related to changes made as a result of the Monterey Amendment, but are the result of factors such as population increases; decreases in other water sources, such as the Colorado River due to the QSA; and wetter years which provide greater opportunities for Delta export pumping. See discussion in FEIR Subsections 6.3.2.1, 15.2.2, 15.2.3.1, and 15.2.3.3.

#### 15.2.3.2 SWP Delta Deliveries are Primarily Supply Limited

The increase in contractor demands or requests means that pumping from the Delta is usually supply-limited. Under supply-limited conditions, Banks is operated at its maximum permitted capacity consistent with all environmental and water quality regulations in order to maximize the volume of water captured. When supplies are limited, contractor demands or requests do not

determine how much water is pumped from the Delta, but rather regulatory and hydrologic constraints control the ability of the Department to meet SWP needs and contractor requests. As a consequence of the increase in requests for Table A water, and relatively dry hydrologic conditions since 2000, there are more times when Delta pumping at Banks is supply limited than there were prior to 2000. Increased regulatory export restrictions will also increase the times that pumping from the Delta is supply-limited. See FEIR Subsection 15.2.3.1 on increased contractor requests and FEIR Subsection 15.2.3.3 on reasons for the increased requests and the effect of dry hydrologic conditions.

### 15.2.3.3 Most Increased Pumping not Monterey Related

As discussed above, the DEIR identified a cumulative total increase in deliveries resulting from the proposed project of about 44,000 AF during the nine-year period from 1996 to 2004 compared to the baseline scenario. However, the DEIR also shows that annual deliveries increased more than this amount during the period from 1996 through 2004 (compare DEIR Table 2-3 with DEIR Table 6-7) as a result of increased demand. Total average annual deliveries under 1995 conditions were estimated to be about 2.9 million AF (see DEIR Appendix F). Total average annual baseline deliveries would increase to about 3.1 million AF in 2003 and to 3.32 million AF in 2020 (see DEIR Chapter 6, pages 6-32 and 6-38). See FEIR Subsection 6.3.2.1.

Some comments ask how the estimated increase in Delta pumping of 44,000 AF between 1996 and 2004 attributable to the Monterey Amendment derived from Study No. 2 can be reconciled with these observed large increases in pumping in those years. There are several reasons for the demand increases that result in estimated export increases in the model output (and in actual historical exports from 1996 to 2003) that are not related to changes made as a result of the Monterey Amendment. These increases in pumping are related primarily to increased requests for more water to meet increased service area needs. As discussed in FEIR Subsections 6.3.2.1 and 14.2.2.3, the increased requests or demands for full Table A deliveries are one reason. Most demand increases result from the interrelationship of SWP supplies with other imported and local supplies, and increasing demand in the service area as a result of population growth, increased groundwater banking programs (not Monterey-induced) and reduced water supplies from other sources. For example, Colorado River supplies for Southern California have been dramatically decreased within the last 10 years placing added pressure on Delta exports to meet the water demands of MWDSC's growing population (see FEIR Subsection 7.1.2 and Response to Comment 1-1). However, water use has remained relatively constant over the past 10 years due to increased water conservation. MWDSC was drawing on banked groundwater and drafting reservoir reserves in response to critically dry conditions in 2008, accompanied by a 35 percent SWP allocation of 2008 Table A and no Article 21 supplies to its service area. MWDSC is also imposing stricter water conservation requirements on its member agencies along with financial incentives for added conservation. Other SWP urban contractors are taking similar actions.

In addition, the SWP is usually able to pump much more water in wet years due to the availability of more exportable water in wet years than in dry years. The period 1996 through 2004 was an unusually wet period and as a result pumping rates were high. All but a cumulative total of 44,000 AF of the increased exports between 1996 and 2004 would have occurred without the Monterey Amendment. The Monterey Amendment changed some of the rules for allocating available water supplies once they were exported, like those noted above, but it did not change the general operation of the SWP. The analysis in the DEIR determined that the contract changes contained in the Monterey Amendment can affect Delta export

pumping rates only for limited time periods. This conclusion is documented in DEIR Section 7.2.

### 15.2.3.4 Reducing Demand

It is not realistic to assume that the Department can directly reduce its contractors' demands through a direct mandate, nor is it realistic to assume that reduced demand, absent water quality and endangered species constraints that would restrict the timing and rate of Delta export pumping, would provide the environmental benefits sought by the comment. As discussed in the DEIR on pages 11-5 and 11-6 and FEIR Subsection 11.2.4.1, demand reduction was an alternative that was rejected because it would not meet any of the project objectives as listed in DEIR Subsection 4.3.1. Demand reduction and water conservation strategies are important tools in water management planning and the Department is involved in a number of legislative and administrative actions designed to provide a regional or statewide approach to these strategies. See further discussion on the Department's role with regard to these strategies in FEIR Chapter 5 Subsection 5.2.3.2.

### 15.2.3.5 Did the Monterey Amendment Increase Demand for SWP Water

The term "demand" is used within three different contexts when applied to SWP water supply and may cause confusion especially when trying to analyze the impact of the increase in SWP water deliveries potentially resulting from the water supply management practices.

The first context describes the "demand" or "need" for water from all sources in the service area of the contractor. This is the type of demand that is meant by the "supply and demand assessment" required by the Urban Water Management Planning Act and may be based on a number of factors including population projections, climate, and other demographic factors, local plans and water demand management measures (see California Water Code Sections 10631 and 10635).

Because it is difficult to be certain whether an additional supply of Table A amounts or the water supply management practices will affect the in-service area total demand of SWP M&I contractors who benefited from these provisions, this EIR assumes that the increased supply made available by the Monterey Amendment did increase urban demand for water as a result of two actions. The transfer of water from agricultural contractors (contractors that always used their full allocated Table A amounts) to urban uses may increase urban demand for water. Several SWP urban contractors received the Table A transfers for the purpose of supporting their urban agency's planned population growth. In addition, an increase in dry-year supplies from water stored outside of contractors' service areas (one of the water supply management practices) may support an additional increment of growth for SWP M&I contractors that made use of storage outside their service areas, and in those cases the added growth could also have an accompanying demand for additional water. For those contractors not benefitting from the above actions, the Monterey Amendment would not lead to increased demands within those service areas. See DEIR Chapter 8 and FEIR Chapter 8, especially FEIR Subsection 8.2.4.

The second context of demand describes the "demand" input to the CALSIM II model used in this EIR to estimate deliveries to SWP contractors of SWP water for the purpose of comparing the allocation of water supplies under different hydrologic year types for different alternatives. The estimates of demand for 2020 assume full Table A requests for all contractors and are based on current contractor requests for full Table A deliveries and assumed increases over time given estimated increases in population and historical demands. The CALSIM II demands for Table A supplies cannot exceed contractual Table A supplies, and thus may represent only a

portion of each agency's total in service area demands. Article 21 demands in CALSIM II reflect each contractor's ability to temporarily accept supplies on an interruptible basis during the wetter periods when such supplies can become available. Actual contractor in-service area demands are greater than the SWP values input to the CALSIM II model, as SWP water is only one part of total in-service water demand. CALSIM II only models SWP contractor's SWP water demands. See FEIR Subsection 6.3.2.4 on use of Table A amounts in CALSIM II.

The third context of demand describes the action of an SWP contractor when it "requests" SWP water to meet a part of its demands. Depending on the circumstances and availability of types of water, the request might be for Table A amounts, Article 21 water or some other type of water. Regardless of the water types, a contractor will request water to meet part or all of its demand or need for water from its service area. The Department recognizes that a contractor's request for SWP water will vary due to the availability of local water supplies, the actual use by water users within the contractor's service area as the year progresses, water costs of SWP water relative to other available sources, water quality considerations, and other factors. It is also important to note that contractors cannot request more Table A water deliveries than is provided in their water supply contracts. They also cannot request more Article 21 water than their system capabilities and available storage facilities can accommodate.

The Department's classification of the water as Table A, Article 21 or other water types does not change the contractor's total demand or need for water in its service area. However increased flexibility resulting from the water supply management practices that leads to storage opportunities that might not have occurred in the absence of the Monterey Amendment could result in increased demand to the extent that the added supply supports added growth, as discussed above. The Table A transfers to urban agencies also can support added growth that in turn increases water demand in those service areas. The CALSIM II model did not include in its estimate of demand any increases based on the water supply management practices, but to the extent that more Table A was available due to the transfers, it did increase the Table A demand assumptions by the amount of the transfers.

In conclusion, as discussed in FEIR Subsection 15.2.1, because there was no change in total requests for Table A deliveries (except a small decrease prior to 2001 as the demand of the urban agencies caught up to the new supplies due to urban growth), there are no delivery increases attributable to the Table A transfers or to altered allocation procedures. However, under the proposed project there is a potential for increased demands by some urban agencies as a result of Table A transfers and the water supply management practice to store water outside of SWP contractor service areas. The potential changes in demand for SWP water and the growth-inducing potential resulting from the water supply management practices and the Table A transfers are reflected and analyzed in FEIR Subsection 8.2.4 where the added growth supported by out-of-service-area storage is estimated and Section 8.2 of the DEIR as updated in FEIR Section 8.4 where the growth supported by the Table A transfers is estimated. That added growth increment is the sole factor of the Monterey Amendment that increased SWP contractor demand. DEIR Appendix K, Historical Operations Analysis, Study Number 3 identifies the estimated increase in deliveries from the SWP due to the water supply management practices that have historically occurred and which could occur in the future to meet part of the increased demands within the SWP service area.

### 15.2.4 Storage Outside a Contractor's Service Area

Comments addressed in this subsection include: 22-18, 30-34, 30-80, 30-119, 30-121, 30-132, 30-139, 35-3, and 66-16.

## Storage in Non-SWP Reservoirs Outside a Contractor's Service Area

Some comments suggested that the pre-Monterey contract precluded SWP contractors from storing water outside of their service areas. This suggestion is not correct. As discussed below, the pre-Monterey contract did not preclude SWP contractors from storing water outside of their service areas on a case-by-case basis.

Article 15(a) of the long-term water supply contract states that, "Project water delivered to the Agency pursuant to this contract shall not be sold or otherwise disposed of by the Agency for use outside the Agency without the prior written consent of the State." Additionally, Article 41 provides the Department with the authority to approve a proposed assignment or transfer of any part of the contracts. As noted in DEIR Subsection 2.5.2, in the late 1980s, the Department began considering requests for storage of a contractor's SWP supplies in groundwater banks outside its service area, and had approved the transfer of SWP water outside contractors' service areas under Article 15(a) of the long-term water supply contracts, on a case-by-case basis.

The Monterey Amendment however added Article 56(a) which states: "Notwithstanding the provisions of Article 15(a), the State hereby consents to the Agency storing project water outside its service area for later use within its service area in accordance with the provisions of subdivision (c) of this article…" The Monterey Amendment did not create a new practice but it facilitated and provided contractual clarification regarding the approval and administrative details, rather than approval and administration on a case-by-case basis as occurred in the pre-Monterey water supply contract.

Article 56(c) sets limits on the amount of SWP water that can be added to storage each year in surface reservoirs outside contractors' service areas. It places no limit on the amounts of water that can be stored in groundwater banks outside contractors' service areas. Article 15(a) of the pre-Monterey contracts also placed no limits on the amount of water that a contractor could store outside its service area. Storing water in the SWP conservation reservoirs, however, has limits due to operational and physical constraints of the reservoirs. Project use of the SWP storage facilities always has priority for the benefit of the SWP as a whole; therefore SWP supplies will displace stored contractor water as the reservoirs fill.

## Storage in San Luis Reservoir

As noted in DEIR Subsections 2.5.5 and 6.2.4.3, prior to the Monterey Amendment, Article 12(e) provided the opportunity for contractors to store Table A water outside their service areas in SWP conservation reservoirs from one year into the following year, subject to operational constraints. This water is called carryover water and is limited to Table A water that a contractor scheduled for delivery in October through December which was not delivered due to a scheduled or unscheduled outage in the contractor's service area, or due to a delay in planned pre-irrigation or groundwater storage activities. From 1977 through 1990, the Department approved Article 12(e) carryover water in SWP conservation reservoirs on a discretionary basis. This water management option became the subject of a contract amendment in 1991. Article 12(e) was not modified by the Monterey Amendment; however the Monterey Amendment added Article 56(c) which provides an additional type of carryover which has fewer restrictions on carrying over water into another year or years. Article 56(c) also allows SWP contractors to store water in SWP conservation reservoirs, like San Luis Reservoir.

In practice, the contractors use carryover as a hedge against potential dry year conditions the following year, carrying over allocated but unused Table A water from one year for use the next

year. If San Luis Reservoir is forecasted to fill, contractors will try to take delivery of all the carryover water they can use, and do so before the carryover supplies are displaced by SWP supply or "spilled," meaning the water is converted to SWP supply, with the carryover label lost. Following delivery or conversion of the carryover water, Article 21 water may be made available. Although carryover and Article 21 supplies can be delivered concurrently, delivery is most often sequential. If San Luis Reservoir does not fill, there is no Article 21 water offered to the contractors, and the carryover water can remain in San Luis Reservoir for later use by the contractors.

### Increases in Water Stored Outside a Contractor's Service Area

Several comments noted that there have been increases in water stored in groundwater storage outside contractor's service areas and increases in carryover water since the Monterey Amendment. This observation is correct. Increases in deliveries are discussed in FEIR Subsection 15.2.2.

There are various reasons why these increases may have occurred. As discussed on pages 6-10 and 6-54 of the DEIR, prior to about 1990, the contractors did not submit requests for storing SWP water outside their service areas because there was no need to do so; water demands were lower than they are currently and water supplies were generally adequate. In the early 1990s, contractors' interest in the concept grew as shortages occurred in a series of dry years. In addition to increased demand, contractors were finding fewer opportunities to store water within their service areas and they had increased concerns about delivery reliability in dry years. Additionally, favorable hydrology since the Monterey Amendment was implemented and wetter conditions locally provided more local supply and suppressed demand for water resulting in more SWP water being allocated than the average contractor could annually use, thus resulting in additional water available to store for those contractors with storage outside of their service area.

The concern about water reliability and the desire to increase opportunities for storage were behind the passage of the Water Conservation Bond Law of 1988 (CWC Section 12879). In this legislation, the Legislature found and declared that there was a "lack of local water projects in certain areas of the state where the demands of a growing population could exceed water supplies which could threaten the public health and impede economic and social growth," and that "recharging groundwater basins is an effective way to maximize the availability of scarce water supplies throughout the state through the efficient management of recharge and extraction activities in groundwater basins, and by reversing the effects of historical overdraft."

## 15.2.5 Flexible Storage

Comments addressed in this subsection include: 16-6, 16-7, 16-24, 16-25, 16-28, 22-18, 30-51, 30-80, 30-94, 30-95, 30-98, 30-99, 30-112, 30-113, 30-121, 30-123, 30-126, 30-128, and 67-31.

As stated in DEIR Subsection 4.4.4, Article 54 provides contractors that were participating in the repayment of the capital costs of Castaic Lake and Lake Perris the flexibility to withdraw or borrow and then replace SWP water that is stored in the lakes in amounts above their allocated SWP water supplies. The MWDSC, Ventura County FC&WCD, and Castaic Lake WA participate in the repayment of capital costs for Castaic Lake and may collectively withdraw up to 160,000 AF from the reservoir. MWDSC, Coachella Valley WD and Desert WA participate in the repayment of capital costs for Lake Perris, but through agreement, MWDSC is the only contractor that can withdraw water from Lake Perris, and it may withdraw up to 65,000 AF from the reservoir. A contractor that withdraws water is required to replace that water within five

years after the withdrawal occurs. If it fails to do so, the Department would replace the water in the sixth year, or as soon as possible thereafter, with SWP water otherwise approved for delivery to that contractor. The participating contractors are to cooperate with each other to minimize adverse impacts to each other. The practice provides a contractor more flexibility to manage its different water supplies by allowing the contractor to change the timing of its SWP water supply allocation; it does not give the contractor more Table A water that it would otherwise get under that allocation. If the contractor is able to repay the borrowed water with Article 21 supplies that it would not otherwise have been able to use or store, then it would have received more total water that it would have absent the borrowing.

### 15.2.5.1 Operations

Several comments asked for clarification of the operation of the terminal reservoirs. The contractors (which are CEQA Responsible Agencies) did not always agree with some of the statements in the DEIR regarding this operation. As noted in Subsection 6.4.3, Castaic Lake and Lake Perris are located respectively at the termini of the West and East branches of the California Aqueduct. These reservoirs are not conservation reservoirs like Lake Oroville and San Luis Reservoir which are paid for by all the contractors. Rather, Castaic Lake and Lake Perris (paid for by those contractors that can contractually take delivery of water from them) are terminal storage reservoirs that help meet peak water supply demands and provide emergency storage, recreation, and fish and wildlife enhancement. The Department uses the reservoirs to meet peak summertime water demand in southern California when the California Aqueduct is operating at its maximum capacity. When the California Aqueduct is out of service in emergencies, or subject to flow reductions for maintenance or other reasons, the Department can supply some contractors with water from Castaic Lake and Lake Perris. The Department refills the reservoirs when water and energy conditions are favorable.

The Department also uses the reservoirs to reduce its electrical power costs and help balance demand and supply on the California power grid. The cost of electrical power reaches its seasonal maximum on hot summer days. By supplying water to some contractors from the reservoirs at such times rather than purchasing power at peak rates to pump water from the California Aqueduct, the Department is able to reduce its power costs.

For a variety of reasons, including recent wetter than normal hydrology, the Department had been able to reduce its summer drawdown of Castaic Lake and Lake Perris during the period of 1996 to 2003 compared to pre-Monterey Amendment conditions. The higher water level enabled the Department to accommodate borrowing of water by contractors under the flexible storage provision without compromising the other purposes of the reservoirs; that is, meeting peak demands, providing water in emergencies and during maintenance, and increasing the efficiency of energy use. When water has been borrowed from the reservoirs, the Department has often refilled the reservoirs for SWP purposes, as water and off-peak energy become available to it, before the contractors replaced the water they had borrowed. The contractors must still replace the water within five years. As noted in DEIR Subsection 6.4.3, the Department will continue to operate Castaic Lake and Lake Perris in the future as it has done historically, and the functions of the reservoirs would remain the same.

Although there may be disagreements among the Department and some of the contractors as to exactly how the reservoirs should be operated, it is recognized by the Department and the contractors that meeting the purposes of the reservoirs, including flexible operations, means that the reservoirs may be drawn down substantially at times as shown in DEIR Figures 7.1-4 and 7.1-5. While unlikely, in a worst-case scenario it is possible that the reservoirs could be

drawn down to half their maximum capacity. See FEIR Subsection 15.2.5.3 on the worst-case scenario.

### 15.2.5.2 Payback of Borrowed Water

Several comments asked for clarification of how the borrowed water would be paid back, including whether groundwater would be purchased to pay back the water. As noted in DEIR Subsection 6.4.3 (pages 6-59 through 6-62) borrowed water could be replaced by several means. The borrowing contractor could increase its use of one of its other water sources and take less SWP water than its allocation under the other provisions of the SWP contracts. A contractor might also pay back borrowed water by requesting a greater proportion of its Table A amount or more Article 21 water than it otherwise would request, and requesting delivery of the borrowed water to the reservoir. The SWP supply portion can be Table A, Article 21, or other water. If the contractor does not or cannot repay the water within the required period, such as during an extended drought, the refilling would be accomplished by repayment from that contractor's allocated Table A and/or Article 21 supplies in the sixth year or as soon after as possible. See FEIR Subsection 15.2.5.3 below on impacts from maximum use of flexible storage.

It is unlikely that groundwater would be purchased for repayment of borrowed water under flexible storage. The Department is not aware of any proposals to purchase groundwater. Any new proposals would have to comply with CEQA. It is possible that a contractor could seek water transfer supplies to repay flexible storage. The contractor would have to comply with CEQA and California water law to obtain those supplies from a willing seller and move the water to the affected reservoir for repayment. No such actions are contemplated within the context of this proposed project, nor would they be covered by this EIR.

See also DEIR (primarily Impact 7.1-4) for more discussion on the full exercise of the potential drawdown.

### 15.2.5.3 Impacts from Maximum Use of Flexible Storage

MWDSC and Castaic Lake WA borrowed water from Castaic Lake pursuant to Article 54 between 1996 and 2003. MWDSC also borrowed water from Lake Perris. It is expected that the three contractors that are able to borrow water from the terminal reservoirs pursuant to Article 54 would do so in the future. As noted on DEIR page 6-61, future borrowing may draw down the two reservoirs to a greater extent than occurred between 1996 and 2003, a relatively wet period. MWDSC provided an estimate of its future use of flexible storage which shows increased use of the flexible storage provisions (see DEIR Table 6-28).

As noted in DEIR Subsection 5.5, Flexible storage in Castaic Lake and Lake Perris could affect Delta outflow but would also have local impacts at the two reservoirs. The analysis of the impacts was conducted in two ways: first, by tabulating actual exercise of flexible storage by the three contractors allowed to access the water, and second by assuming a maximum exercise of the right during potential future drought conditions. The second method provides a worst case analysis of potential impacts at the two reservoirs. Lake Perris is currently drawn down because of concern about seismic safety of Perris Dam. However for the purposes of the EIR, it was assumed that the seismic safety issues will be resolved and operations at the reservoir will return to normal. As noted in the DEIR, the effects of flexible storage on Delta exports depend on how borrowed water is replaced.

The repayment of water would only affect SWP Delta Exports (and total SWP deliveries) if repayment occurred when Table A allocations were 100 percent of contractor requests or Article 21 water was available in excess of demand to repay the borrowing. That is, if Delta pumping would have been cut back because all other demands for SWP water were being met and all SWP storage facilities were full or at its storage targets, but demand for repayment water leads to Banks Pumping Plant pumping at its full permitted rate for a longer period to export the repayment water, repayment would increase total deliveries of SWP water. Water supply management practices are analyzed as a group and potential increases in deliveries from flexible storage are included in the increases from all the water storage management practices discussed above in FEIR Subsection 15.2.2. See also discussion in FEIR 15.2.5.2 on payback of borrowed water.

As noted on DEIR page 6-62, if the contractors borrowed the maximum amounts of water permitted under Article 54, 160,000 AF would be borrowed from Castaic Lake and 65,000 AF would be borrowed from Lake Perris, in each case about half the maximum capacity of the reservoir. The reservoirs could remain drawn down for a maximum of five years. The Department assumed a worst case scenario to conservatively identify environmental impacts.

The SWP contractors noted that the worst case scenario is highly unlikely as leaving the reservoirs "drawn down for such an extended period of time would leave these contractors without essential supply reserves and vulnerable to shortages in any number of events, such as: dry year conditions, conveyance outages, system maintenance, and earthquake or other emergency conditions." The DEIR recognizes (page 6-62) that although this “worst-case” condition could occur, it is unlikely because it is in the interests of the Department, and the contractors that receive water from the two reservoirs, that borrowed water be replaced as soon as practicable. The terminal reservoirs fulfill their function best when they are kept full or close to full. With the flexible storage provision in place, the Department would continue to operate Castaic Lake and Lake Perris as it has done historically. The functions of the reservoirs would remain the same. Depending on future conditions, the Department may be able to continue the practice of reducing annual summer drawdown of the reservoirs compared to pre-Monterey Amendment conditions (see FEIR Subsection 15.2.5.1 on operations).

### 15.2.5.4 Paper Water

Comments state that the flexible storage program relies on “paper water." As stated in the DEIR on page 9-1, “the plaintiffs in PCL v. DWR argued that urban planning agencies might overestimate the amount of water available to support urban growth by basing planning decisions on the contractual Table A amount of an SWP contractor and not on a more realistic expectation of annual SWP water deliveries.” The DEIR explains that water actually in the terminal reservoirs is removed and delivered when it is needed to assist in the southern contractor's operations. Water is repaid when the borrowing contractor has supply to do so. As shown in DEIR Table 6-27, use of the water for water quality improvements has been the most frequent use of the water. As discussed in this FEIR Subsection 8.2.4, the Department concludes that flexible storage would not facilitate growth.

Flexible Storage withdrawals from Castaic Lake or Lake Perris are loans of water that must be repaid. The flexible storage can bridge a brief period, but does not provide new water unless certain unpredictable conditions allow increased Delta exports in which to refill the evacuated storage. There is limited water supply reliability associated with the use of flexible storage, and it cannot be relied upon to support the approval of new growth. Its primary benefits accrue to MWDSC, with some benefit to Ventura County FCWCD and Castaic Lake WA. There would be no change in the average annual water supply available to these contractors with use of the

storage. There is also the risk that the repayment period could occur during a drought, adversely impacting water supplies. See also DEIR and FEIR Chapter 9 for a discussion of paper water and water reliability.

### 15.2.6 Turnback Pool

Comments addressed in this subsection include: 21-14, 22-18, 30-51, 30-80, 30-112, 30-121, 30-123, 30-126, and 30-128.

Article 56(d) establishes a new program that allows a contractor with more allocated Table A water than it needs in any year to offer its excess Table A water for sale in that year to other contractors, or to the Department if any water remains unsold in the pool. Contractors having excess allocated Table A water can turn back water to the SWP Turnback Pool program early in the year for sale to other SWP contractors for their use, or any remaining unsold pool water to the Department to increase SWP supplies for the following year. In return, that contractor is paid a rate equal to either one-half or one-quarter of the full cost that they pay per acre-feet of annual contractual Table A amounts, for the development of such supply. The money received covers just a portion of this cost, which they pay every year regardless of whether or not they are allocated or receive such contractual Table A amounts.

Several comments indicated that the Turnback Pool gives the contractors an incentive to request their full Table A. As noted in Subsection 6.4.3 of the DEIR, contractors have often requested more Table A water than they ultimately needed on their annual schedules due to several reasons. By October 1, when the initial requests are made for the following calendar year, contractors cannot know how weather will affect demand for water in their service areas, how much local water supply will be available, or how much water will be allocated to them by the SWP. A reasonable strategy for a contractor is to estimate the range of likely water demand and then request a Table A amount sufficient to meet demand at the high end of the range. Although this is prudent practice for an individual contractor, it does not optimize benefits for the SWP as a whole. If a contractor discovers in the spring that it needs only a portion of its requested Table A water, it may be too late for another contractor or the Department to put the unneeded water to use. Although it is true that the Turnback Pool was created to provide a financial incentive to a contractor that does not need all of its requested Table A water to turn that water back for sale to another contractor or possibly the Department early enough in the year for it to be put to use, the financial return only offsets one-half to one-fourth of the contractor's full cost for the development of Table A.

Other comments stated that the EIR must explain the impact of the Turnback Pool, and assess its impacts on growth. The water supply management practices are analyzed as a group, with growth-inducing impacts of the water supply management practices discussed in Chapter 8 of the DEIR. The growth-inducing impacts of the Turnback Pool alone are negligible or non-existent for the following reasons: (1) nearly all of the transfers within the pool have been from urban to agricultural agencies to support agricultural uses, not urban growth; (2) in dry years, the amount of water available in the pool is very small, and cannot be relied on for dry-year reliability purposes by any contractor, and thus, cannot be relied on to support any growth; and finally (3) the amount of water offered in the Turnback Pool is decreasing each year as the urban agencies that traditionally have offered the water now use most or all of it as their service area demands increase.

### 15.2.7 Transport of Nonproject Water

Comments addressed in this subsection include: 30-113 and 30-121.

As noted in DEIR Subsection 6.4.3 Article 55 clarifies the terms and conditions for conveyance of non-SWP water in SWP facilities but has no effect on deliveries of SWP water. Because the Department is required by the California Water Code to transport water for others in SWP facilities when capacity is available to do so, this provision neither increases nor decreases the contractors' ability to convey non-SWP water using SWP facilities. Because Article 55 has no effect on SWP deliveries or the use of SWP facilities to deliver non-SWP water it would have no environmental effects. Transfers of non-SWP water usually need to be approved by the SWRCB and must comply with CEQA.

## 15.3 RESPONSES TO INDIVIDUAL COMMENTS

### Response to Comment 16-6

The comment asks that the Department clarify the function of Castaic Lake and Lake Perris as terminal reservoirs. The Department agrees that the terminal reservoirs of the SWP are not primarily conservation facilities (development of a water supply for the entire project), although Castaic Lake does receive some local runoff that can be stored in the facilities. Castaic Lake and Lake Perris are terminal storage reservoirs that help meet peak water supply demands and provide emergency storage, recreation, and fish and wildlife enhancement.

Although it is outside the scope of the project description to get into a detailed description of the concepts, roles, and financing of SWP conservation and transportation facilities for the Monterey Plus EIR. The Department notes in DEIR Section 2.2 on pages 2-4 and 2-5 that the two reservoirs serve as regulatory and emergency water supply facilities for the East Branch and West Branch of the California Aqueduct. DEIR Subsection 2.6.2 states that each contractor also pays its own "transportation charge" which repays the cost for constructing and operating the aqueduct facilities needed to deliver water to a SWP contractor's service area. DEIR Subsection 4.4.4 on page 4-7 states that Article 54 provides contractors that were participating in repayment of capital costs of Castaic and Lake Perris the flexibility to withdraw SWP water in amounts from the reservoirs in addition to their allocated SWP water. Please also see FEIR Subsection 15.2.5.1 which describes the operation of the terminal reservoirs.

### Response to Comment 16-7

The comment notes that the Department's assumption of the worst-case scenario is highly unlikely and states that the most likely scenario for the future operation of Lake Perris and Castaic Lake is a continuation of operations since 1996. The Department agrees that the worst-case scenario is unlikely. The DEIR recognizes on page 6-61 that future borrowing may draw down the reservoirs to a greater extent than occurred between 1996 and 2003, a relatively wet period. This statement was based on an estimate of the future use of flexible storage by MWDSC found in DEIR Table 6-28. The DEIR then goes on to state on page 6-62, where it discusses the worst-case condition, that although this worst-case condition could occur, "it is unlikely because it is in the interests of the Department, and the contractors that receive water from the two reservoirs, that borrowed water be replaced as soon as practicable." This statement is found in Subsection 6.4.3 of the DEIR that describes the effects of the water supply management practices on SWP and SWP contractor operations. The resource sections that deal with Lake Perris and Castaic Lake have a similar statement that says, "Although the worst-case condition could occur, it is unlikely." A similar statement is also made in the summary of 7.4-5 on page ES-27. See FEIR Subsection 15.2.5.1 on operation regarding flexible storage, and Subsection 15.2.5.3 which describes impacts from the use of flexible storage.

## Response to Comment 16-10

The comment notes, as does the DEIR, that the future analysis may overstate the magnitude of increase in Delta export pumping, and the resulting degree of impact, of the water supply management practices. The Department agrees that the magnitude of a future increase in Delta export pumping and the resulting degree of impact of the water supply management practices may be overstated. The changes in SWP operations and deliveries induced by the water supply management practices are addressed in DEIR Subsections 6.4.3 and 6.4.5. To the extent that constraints on pumping for fish protection, reduced pumping opportunities due to climate change, and other factors reduce exports from the Delta attributable to the water supply management practices, and that greater current demand for water by SWP contractors reduces the opportunity to bank water outside of contractor service areas for future use, the smaller the impacts identified in the DEIR on the Delta will be and the less effective the water supply management practices will be in improving reliability and flexibility of SWP supplies in conjunction with local supplies. See FEIR Subsection 15.2.2 on deliveries that points out that the future analysis may overstate the magnitude of Delta export pumping. See also Response to Comment 16-10 in FEIR Chapter 6.3.

## Response to Comment 16-23

The comment notes that the statement (page 5-9, third paragraph, second sentence of the DEIR) that flexible storage withdrawals are “subject to Department approval” is misleadingly broad and suggested revised language. The Department agrees; therefore, the second sentence of the third paragraph on page 5-9 of the DEIR is revised to read as follows:

> The proposed project allows those contractors that were participating in the repayment of these reservoirs to withdraw up to about 50 percent of the total storage capacity of ~~volume of water in~~ the reservoir, subject to Department delivery schedule, approval, and contractual requirements to replace the water within five years.

See also the introduction to FEIR Subsection 15.2.5.

## Response to Comment 16-24

The comment claims that the statement "the terminal reservoirs fulfill their function best if they are kept full or nearly full" is misleading. The statement in question was made on page 6-62 of the DEIR in connection with the discussion of the worst-case drawdown and its potential impact where it was stated that the worst case condition was unlikely to occur because it was in the interest of the Department and the contractors that receive the water from the two reservoirs that water borrowed be replaced as soon as practicable. It was in this context that the DEIR then states "the terminal reservoirs fulfill their function best if they are kept full or nearly full." The DEIR recognizes that meeting summer deliveries does draw down the reservoirs (pages 7.1-47 and 7.1-49 and Tables 7.1-4 and 7.1-5); however, the DEIR also recognizes that it is to the advantage of the Department and the contractors to refill the terminal reservoirs when water and energy conditions are favorable (page 6-62 and elsewhere). See Response to Comment 16-7. This concept is discussed more in FEIR Subsections 15.2.5.1 and 15.2.5.3 on operation and impacts of the use of the flexible storage practice.

## Response to Comment 16-25

The comment states that the predominant reason the Department has reduced its drawdown of Castaic Lake and Lake Perris is because of an agreement referenced in the comment. For a

variety of reasons, including wetter than normal hydrology during much of the 1996 to 2003 period, the Department has been able to reduce its summer drawdown of Castaic Lake and Lake Perris compared to pre-Monterey Amendment conditions. The higher water level enables the Department to accommodate possible borrowing of water by contractors under the flexible storage provision without compromising the other purposes of the reservoirs; that is, meeting peak demands, providing water in emergencies and during maintenance and increasing the efficiency of energy use.

The reference in the comment is to a paragraph from a document entitled "Monterey Amendment White Paper, September 28, 1995 redraft" which states that "the Department intends to modify its operation of these reservoirs such that the annual cycling of the storage not available to the contractors for flexible storage is limited to about 30,000 AF at each reservoir." The Monterey Amendment White Paper is a draft summary paper that was prepared at the time the Monterey Amendment was executed and it included a discussion of operational criteria regarding flexible storage. As indicated in a letter from the Department Director Kennedy to each of the SWP contractors notifying them of the separate transmittal to them of the Monterey Amendment for their execution (e.g., see attached November 8, 1995 letter from the Department to MWD), "Also sent… were four copies of the White Paper prepared by representatives of the water contractors and Department staff to explain the Amendment and the manner in which the Department intends to administer the Amendment." The draft paper was never finalized and never embodied in or referenced in any agreements between the Department and the contractors. There may be some differences of opinion between the Department and the contractors as to how this document affects the way the Department operates the flexible storage program. The operation of the terminal reservoirs is discussed in FEIR Subsection 15.2.5.1 which recognizes that there may be some differences between the Department and the SWP contractors on how the reservoirs may operate in the future. These differences do not affect the environmental analysis which assumes a worst case scenario.

## Response to Comment 16-28

The comment disagrees with the DEIR's analysis of the worst case drawdown scenario, and disagrees with the findings of significance for impacts to terrestrial biological resources from reduced foraging, to visual resources, or to air quality or soils from increased erosion. See FEIR Subsection 15.2.5.3, which states that the Department assumed a worst case scenario to conservatively identify environmental impacts.

Also see FEIR Section 7.3 for terrestrial resources (Response to Comment 16-29), Section 7.4 for visual resources (Response to Comment 16-30), Section 7.5 for air quality (Response to Comment 16-31), and Section 7.6 for geology (Response to Comment 16-32). The Department reviewed the analysis and conclusions of the DEIR with regard to these impacts and believes they still represent an appropriate level of analysis and significance determination.

## Response to Comment 16-37

The comment points out that Table ES-1 on page ES-39, Mitigation Measure 7.9-1(c) should be corrected to be the California Department of Public Health (no longer DHS). The text is changed as follows:

c) *The Department shall monitor water quality during drawdown periods and when swimming is allowed using the current full-body contact criteria and laboratory methods adopted by the California Department of Public Health ~~Services~~ or the U.S. Environmental Protection Agency, as applicable.*

## Response to Comment 16-39

The comment suggests that the phrase "due to high storage in SWP reservoirs" in the last sentence in the first paragraph on page 2-15 of the DEIR does not make sense without further explanation. The last sentence of the first paragraph on page 2-15 of the DEIR is deleted:

> … The fall 1991 Storage Program entailed the delivery of 200,000 AF of water from San Luis Reservoir to M&I contractors for storage in local reservoirs or groundwater basins. ~~The water was made available from October through December 1991 due to high storage in SWP reservoirs.~~

The comment also suggests that the discussion of Water Purchases (second paragraph on page 2-15 of the DEIR) that describes drought water bank supply sources be amended to correct the groundwater pumping discussion. The second paragraph on page 2-15 of the DEIR is revised to read as follows:

> … Water was purchased from three sources: 1) surplus water in non-SWP surface reservoirs; 2) additional pumping of groundwater in exchange for a like amount of existing surface supplies; and 3) fallowed agricultural lands. In 1992, the Department purchased almost 200,000 AF of water and approximately 222,000 AF of water in 1994, on behalf of individual SWP contractors and non-SWP water users.

## Response to Comment 16-42

The comment requests that the last bullet on page 3-4 of the DEIR be revised to refer to Department approval. The last bullet on page 3-4 of the DEIR is revised to read as follows:

- provide Department approval and rules for storing water outside a contractor's service area.

## Response to Comment 16-49

The comment requests that the first sentence of the last paragraph on page 6-9 of the DEIR be revised to include reference to "credits for future water deliveries." The first sentence of the last paragraph on page 6-9 of the DEIR is revised to read as follows:

> Prior to 1990, the long-term water supply contracts contained no provision for contractors to carry over allocated Table A water in SWP reservoirs from one year to the next (although Articles 12(d) and Article 14(b) "make-up" water offered credits ~~of water~~ for future water deliveries). …

## Response to Comment 16-50

The comment requests that the third paragraph on page 6-12 of the DEIR be revised to clarify the operation of the intake to Clifton Court Forebay. The fourth sentence of the second full paragraph on page 6-12 of the DEIR is revised to read as follows:

> … Under supply-limited conditions, ~~Banks Pumping Plant~~ the intake to Clifton Court Forebay is operated at its maximum permitted capacity ~~in order to maximize the volume of water captured,~~ subject to the limitations of water quality, Delta standards, and a host of other variables, until all needs are satisfied and all SWP storage facilities south of the Delta are full or at their storage targets. …

## Response to Comment 16-60

The comment requests that the last sentence of the fourth paragraph on page 6-60 of the DEIR be revised to add "within their service areas." The last sentence of the fourth paragraph on page 6-60 of the DEIR is revised to read as follows:

> …They placed water in storage outside their service areas in order to diversify their water sources rather than to increase their total amount of water in storage within their service areas.

## Response to Comment 16-61

The comment requests that the third full sentence of the first paragraph on page 6-62 of the DEIR be revised. The third full sentence of the first paragraph on page 6-62 of the DEIR is revised to read as follows:

> …In this case, if Table A allocations are less than 100 percent ~~and more~~ or less Article 21 water was available than the demand for it ~~in excess of demand~~, the increase in Table A delivery to that contractor would be offset by reduced allocations to other contractors with no effect on total deliveries of SWP water.

## Response to Comment 16-94

The comment requests corrections to the first full paragraph on page 7.8-10 of the DEIR. The text is changed as follows:

> …the average water surface elevation~~s~~ at ~~Castaic Lake and~~ Lake Perris was about four feet higher between 1996 and 2003 than in the pre-Monterey Amendment period before 1995. The average water surface elevation at Castaic Lake from 1996 to 2003 was about 2~~0~~3 feet higher than between 1974 and 1995.

## Response to Comment 16-95

The comment requests that the reference to Table 6-27 in the third paragraph on page 7.15-10 of the DEIR be revised to reference the correct table (Table 6-28). The second sentence in the third paragraph on page 7.15-10 of the DEIR is revised to read as follows:

> … Table 6-2~~7~~8 in Chapter 6 shows MWDSC's expected future use of flexible storage in Castaic Lake and Lake Perris. …

## Response to Comment 16-102

The comment requests that reference to DEIR Section 6.4.3.1 be corrected to refer to Section 6.4.3 because Section 6.4.3.1 does not exist in the DEIR. Reference to 6.4.3.1 on pages 7.3-77, 7.3-80, 7.5-15, 7.7-14, 7.8-10, 7.9-13, 7.9-14, and 7.15-10 is revised to refer to 6.4.3. See Chapter 2 of the FEIR.

## Response to Comment 21-14

The comment claims that the DEIR should disclose that the water supply management practices "ensure Delta exports remain at their maximum during all times of the year." The Department does not agree that the water supply management practices ensure Delta exports remain at

their maximum during all times of the year. There are times when pumping is curtailed below the regulatory limits because of voluntary fish protection measures and at times when all demand has been met and all storage facilities are full or at target storage. Pumping may also be reduced for operational reasons. The Department operates Banks consistent within all of the regulatory constraints to provide as much of the contractual water supplies as possible. The water supply management practices allow the export pumps to operate closer to the limit in some wetter winters when San Luis Reservoir is full, as described in DEIR Subsection 7.1.3 and Appendix K.

The Department also disagrees that the DEIR does not disclose the impact of the water supply management practices. The impacts of these practices are a primary focus of the EIR, and are addressed throughout the document. DEIR Subsection 4.4.4 notes that the water supply management practices are intended "…to provide more consistency and greater flexibility in SWP contractors' use of existing SWP storage and conveyance facilities, and to promote groundwater banking, conjunctive use of local and SWP water supply sources, and earlier and more efficient use of excess allocated Table A water." Where relevant, each section in DEIR Chapter 7 discusses the impact of the water supply management practices with regard to the specific impact area. See for example the discussion of the effects of water supply management practices on special status fish species on pages 7.3-43 through 7.3-53 and 7.3-54 through 7.3-73. Also see FEIR Subsections 15.2.1 and 15.2.2 which discusses the effect of the water supply management practices on deliveries and Delta pumping.

The comment states that some of the practices may motivate contractors to increase their demand for water and gives as a specific example the Turnback Pool. The Department does not agree. See FEIR Subsection 15.2.3 which discusses the relationship of these practices to demand or requests, and Subsection 15.2.6 which discusses the Turnback Pool.

The comment also states that, since implementation of the Monterey Amendment, as a result of the project-related changes to water management practices, demand for Article 21 water, particularly from urban contractors has increased. The only change resulting from the Monterey Amendment that has the potential to cause increased exports and adverse impacts on Delta fisheries is the implementation of the water supply management practices. The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

The DEIR identified a cumulative total increase in deliveries resulting from the proposed project of about 44,000 AF during the nine-year period from 1996 to 2004 compared to the baseline scenario. However, the DEIR also shows that annual deliveries increased more than this amount during the period from 1996 through 2004 (compare DEIR Table 2-3 with DEIR Table 6-7) as a result of increased demand. Total average annual deliveries under 1995 conditions were estimated to be about 2.9 million AF (see DEIR, Appendix F). Total average annual baseline deliveries would increase to about 3.1 million AF in 2003 and to 3.32 million AF in 2020 (see DEIR Chapter 6, pages 6-32 and 6-38). Except for the cumulative total amount of

44,000 AF, these increases are not related to changes made as a result of the Monterey Amendment, but are the result of factors such as population increases; decreases in other water sources, such as the Colorado River due to the QSA; and wetter years which provide greater opportunities for Delta export pumping. See discussion in FEIR Subsections 6.3.2.1, 15.2.2, 15.2.3.1, and 15.2.3.3.

The comment also states that in part, as a result of the water supply management practices, demand for Article 21 water has increased since the implementation of the Monterey Amendment. Although the increased deliveries included both Table A and Article 21 water, most of the water delivered in the past for storage outside service area was Table A water, and future deliveries are also likely follow this pattern. See DEIR, Appendix F and FEIR Subsection 15.2.2.

## Response to Comment 22-18

The comment claims that carryover, Turnback Pool water, and Article 21 water are contractual definitions that have been modified by the Monterey Amendment. The term “unscheduled water” was renamed “interruptible water” as noted in DEIR Table 4-1 and accompanying text. The water supply contract does not prohibit the Department from creating or administering special water programs. The Department has offered many different water programs to its contractors. The Department has noted throughout the DEIR which programs existed prior to the Monterey Amendment and has described how they changed. See FEIR Subsection 15.2.1. Article 21 existed pre-Monterey and for the most part the contractual definition did not change, just the allocation procedures and the name noted above. See FEIR Chapter 14, Subsection 14.2.1 on Article 21 terminology. See also FEIR Chapter 9, Subsection 9.2.5.2 on elimination of Article 21(g)(1).

A type of carryover existed pre-Monterey under Article 12(e). The Monterey amendment added an additional type of carryover with less restriction for carrying water over into another year. Carryover water is discussed in Subsection 15.2.4. The Turnback Pool program is a new program to the water supply contracts under the Monterey Amendment, and is described in FEIR Subsection 15.2.6.

The comment is incorrect when it states, "Carryover as used in the contract does not deal at all with reserving water in one year to make it available in a subsequent water year." The contracts and allocation of Table A and other water classifications are all administered on a calendar year basis. Thus carryover water is water undelivered from the prior calendar year. The Department notifies the contractors on December 1, 2008 (for example) of the amount of water the Department is allocating for use beginning January 1, 2009 through December 31, 2009. The Department determines its water supply based on the "water year" which is from October 1 to the following September 30. The comment is incorrect when it states, "Carryover water is strictly a consequence of the difference in definitions of contract year and water year." See DEIR Section 6.2.4, "Allocation and Delivery of SWP Supplies," which has described in detail this topic. Also see FEIR Subsection 15.2.4 on carryover in San Luis reservoir.

The comment that the Turnback Pool is created by the different time periods of “calendar year” and “water year” is also incorrect. The Turnback Pool allows a contractor that cannot use a portion of its annual Table A supply to offer it to other contractors on pre-defined terms as the exclusive means of selling a portion of annual Table A. As with carryover, the Turnback Pool is administered on a calendar year basis. M&I Contractors who have not yet needed their current Table A amount have most often offered water to the Turnback Pool.

It is not clear why the comment raises the distinction between calendar and water year. It does not make a difference in how the environmental analysis is carried out or the results of the analysis. The concern seems to be that there is some kind of "gaming" that allows the contractors to get more Table A deliveries than they would in the absence of these provisions. The comment is correct that these practices may increase the amount of water delivered to contractors and that water may be either Table A or Article 21 water. That is the purpose of the water supply management practices. Both carryover and the Turnback Pool are designed to improve the efficiency of the SWP supplies and increase the flexibility of the contractors in sharing the supplies, storage capabilities, and delivery capabilities of the SWP. The comment is correct that these practices may lead to increased pumping during the months of November through March. See FEIR Subsection 15.2.2, which discusses the effects of these practices on deliveries and pumping from the Delta. See also FEIR Section 7.2 which discussed the impact the proposed project on fisheries in the Delta and the regulatory processes in place to limit pumping to protect fisheries in the Delta.

The comment suggested that the EIR should examine project operations without the changes to Article 21, Carryover and Turnback Pool deliveries. The DEIR evaluates the proposed project as well as no-project alternatives. In the complete absence of carryover capabilities, the contractors would seek to store any unused Table A water within their service areas and wherever else they could arrange storage. No Project Alternative 1 shows the results of operating without any Monterey induced changes. No Project Alternative 5 shows the results of a project that would not include water supply management practices.

## Response to Comment 22-19

The comment notes that since both carryover and the Turnback Pool may cause increases in SWP deliveries in the first three months of the contract year, the impacts on Delta health should be analyzed in the EIR. The DEIR analyzed the changes caused by both carryover and the Turnback Pool, both programs of which are in Article 56 of the Monterey Amendment. Impacts to Delta outflow are identified in DEIR Impact 7.1-1, and impacts to fish in DEIR Section 7.3. The DEIR discloses that there are increased Delta exports and potential accompanying environmental impacts during the November-March period of some years as a result of the water supply management practices (see DEIR Tables 7.1-13, and 7.3-22 through 7.3-25). Also see FEIR Subsection 7.2.2.1.3.

## Response to Comment 30-34

The comment states that the pre-Monterey contract provisions set limitations for contractors from storing outside of their service area. This is incorrect. See FEIR Subsection 15.2.4 regarding pre-Monterey storage outside of service area.

See also Response to Comment 30-34 in FEIR Chapter 6.1 on parts of the comment relating to the baseline.

Footnote 38 of this comment suggests that the EIR analysis should be extended from 2020 to 2035. See the Response to Comment 30-34 in FEIR Section 6.2.

## Response to Comment 30-49

The comment requests an explanation of why different time periods are used in different analyses. See Response to Comment 30-141 and FEIR Subsection 15.2.2.

## Response to Comment 30-51

The comment claims that implementation of the Turnback Pool gives incentive for contractors to request their full Table A as well as maximize their annual demand and that this is likely to harden and increase the demand for Delta pumping. See FEIR Subsection 15.2.3.5 on whether the Monterey Amendment increased demand. See also FEIR Subsection 14.2.4.1 regarding "drought or demand hardening."

With regard to the Turnback Pool, the amount of water being offered to the Turnback Pool each year continues to decrease as demand within each contractor's service area increases. Separate estimates of SWP supply changes attributable to the Turnback Pool alone are not available although its influence on Delta exports is included in the analyses in DEIR Appendix K.

As stated on page 6-58 of the DEIR, if the Table A water offered through the Turnback Pool from 1996 to 2004 (922,697 AF) had not been delivered to contractors via the Turnback Pool, it might have been used by the original contractor, allocated to other contractors by the Department, stored by the Department in Oroville or San Luis Reservoirs, or might have flowed out the Delta.

The amount of money that contractors receive from selling their water through the pool does not provide them with a profit, but merely offsets some of the costs they must pay regardless of whether they take delivery of the water. Thus selling water through the Turnback Pool is not a profitable venture and there is no economic incentive for use of the pool other than to gain some revenue to offset part of the cost of water that would otherwise have been used as defined in the preceding paragraph. Two pools offer selling contractors just one-half or one-quarter of the full cost that they pay per AF of annual Table A amounts for the development of such supply. The money received covers just a portion of this cost, which they pay every year regardless of whether or not they are allocated or receive such Table A amount. See FEIR Subsection 15.2.6 for more information on the Turnback Pool.

## Response to Comment 30-52

The comment indicates that the water supply management practices have led to increased demand for water from the Delta, and also states that the historical analysis of the impacts of water stored outside the contractor service areas from 1996 to 2004 is speculative.

See FEIR Subsection 15.2.2 for a discussion of added deliveries attributable to the water supply management practices. With respect to out-of-service-area storage analyses, as described in DEIR Chapter 6 (page 6-15), the Department interviewed the contractors that stored in the Kern groundwater storage projects during that period and determined that there was capacity within each contractor's service area to store water locally in at least the same quantities that each contractor stored in Kern County groundwater basins. The Department believes that the requisite facilities and storage capacities were in place to allow such local storage to occur based on discussions with each contractor that stored water during the historical analysis period.

However, that assumption was not employed for the future analysis. In that case, it was assumed that the same rate of storage in groundwater facilities would continue, but that the added storage activity would increase Delta diversions 1:1. In other words, the local groundwater storage opportunities were assumed to be full or unavailable, and the added demand for stored water outside of the contractors' service areas would translate to an

equivalent increase in Delta pumping during winter and spring months when San Luis Reservoir had filled and Article 21 water could be delivered.

As the comment notes, the Department assumed that water that would have been delivered to storage outside of each contractor's service area would instead have been stored in San Luis Reservoir and delivered to contractors. This assumption is consistent with the Department's historical operation of the SWP. The Department attempts to fill San Luis Reservoir as early in the hydrologic season as possible, and keep it as full as possible. The Department also makes Article 21 water available when the conditions described in detail in DEIR Chapter 6 (essentially storage is full, demands are being met, contractors can store or use water beyond their daily Table A demand, and water can be pumped from the Delta). If San Luis Reservoir can be kept full longer (for example into late spring) an increase in Table A can often be provided. The historical analysis examined actual contractor requests to determine if there was demand for the water in question, and there was such demand. The assumptions used by the Department in this analysis are sound and based on established practice and historical data, not speculation.

The DEIR identified a cumulative total increase in deliveries resulting from the proposed project of about 44,000 AF during the nine-year period from 1996 to 2004 compared to the baseline scenario. However, the DEIR also shows that annual deliveries increased more than this amount during the period from 1996 through 2004 (compare DEIR Table 2-3 with DEIR Table 6-7) as a result of increased demand. Total average annual deliveries under 1995 conditions were estimated to be about 2.9 million AF (see DEIR, Appendix F). Total average annual baseline deliveries would increase to about 3.1 million AF in 2003 and to 3.32 million AF in 2020 (see DEIR Chapter 6, pages 6-32 and 6-38). Except for the cumulative total amount of 44,000 AF, these increases are not related to changes made as a result of the Monterey Amendment, but are the result of factors such as population increases; decreases in other water sources, such as the Colorado River due to the QSA; and wetter years which provide greater opportunities for Delta export pumping. See discussion in FEIR Subsections 6.3.2.1, 15.2.2, 15.2.3.1, and 15.2.3.3.

## Response to Comment 30-80

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-80 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on a preliminary draft of an EIR chapter and primarily address the discussion of water supply management practices. The responses below follow the numbering in the table attached to the letter.

Page 4, line 5. The comment states that the draft chapter does not describe the effects of the proposed project on water deliveries. Changes in water allocations and deliveries are described in Chapter 6. The DEIR contains an analysis of the effects of the proposed project on the quantity of water supplies for SWP contractors and the water agencies they serve (starting on page 7.1-53) and on the availability of water to Feather River water rights contractors and to the CVP and its contractors (starting on page 7.1-54). See also Responses to Comments 1-1, 1-2,

6-11, 6-12, 8-1, 17-5, 22-15, 30-86, 30-91, and 64-29 in FEIR Section 7.1 for further clarification.

Page 4, line 16. The comment questions the effect of the proposed project on non-project water conveyed by the SWP. The DEIR notes that the Monterey Amendment did not affect the Department's obligation to convey non-project water under certain prescribed circumstances (DEIR page 4-7) and therefore has no impact.

Page 4, lines 35-40. The comment states that the historical record of 1995 to 2004 is of limited use because it is only a small part of the historical record. It also states that no reference was made to the limitations of the CALSIM II methodology. DEIR Chapter 5 describes the analytical approach and the analytical methods used to analyze the effects of the proposed project and its alternatives on SWP operations and deliveries to SWP contractors. The methods used were historical data analysis and modeling using CALSIM II. These methods and CALSIM II's limitations are described in the DEIR Chapter 5. It is recognized in DEIR Chapter 5 that CALSIM II does not simulate the water supply management practices that are part of the Monterey Amendment and consequently analysis of historical data was used to characterize the effects of the water supply management practices. See also FEIR Section 6.3. The comment also criticized the precision with which CALSIM II-generated delivery estimates were presented. The delivery estimates in the DEIR are not intended to be precise estimates of delivery but rather to illustrate how the water available under varying hydrologic conditions would be allocated to contractors under the proposed project and various alternatives.

Page 5, lines 4-6. The comment requests that those aspects of the proposed project not modeled in CALSIM II be clearly identified. Chapter 5 in the DEIR delineates those elements of the Monterey Amendment that were simulated using CALSIM II and those that were analyzed using historical data.

Page 6, line 3. The comment noted that the SWP has delivered less than 1 million AF of water in some years. This fact is reflected in the DEIR (Chapter 6, Table 6-1).

Page 14, lines 10-11. The comment questions a statement in the draft document that the CVP and SWP divert 8 million AFY from the Delta. The statement was incorrect. A corrected value is included in the DEIR (Chapter 7 page 7.1-9).

Page 14-15, through line 22. The comment states that the development of the KWB was a physical change and asks how this change and other physical changes to SWP facilities and the MWDSC Diamond Valley Reservoir interact with the water supply management practices. Facilities included in the CALSIM II assumptions are listed in DEIR Table 5-3 on page 5-12. The impacts of the KWB as a local facility are analyzed as part of the project; the impacts of the KWB as a state facility are analyzed as part of the no project alternatives. Diamond Valley Reservoir is an existing MWDSC facility located within the MWDSC service area, and CALSIM II modeled delivery requests assuming the reservoir was in operation. The impacts of the water supply management practices are analyzed using the historical record, which included the operation of the facilities cited in the comment, with the exception of deliveries through the East Branch Extension, which did not deliver water during the historical period. Inclusion of the relatively minor East Branch Extension deliveries would not alter EIR analyses or conclusions.

Page 14-15, through line 22. The comment notes that increased conjunctive use facilities constitute a physical change. The DEIR acknowledges that groundwater storage in Kern County increased in the period following the Monterey Amendment (DEIR Chapter 7 page

7.2-4). Enhancement of ground water banking/conjunctive use infrastructure through local and state funding is not part of the proposed project. See FEIR Subsection 5.2.3.2.

Page 16. The comment asks the Department to address how wetter years affect increasing SWP deliveries. The DEIR analyses in Chapter 6 and Appendix F illustrate deliveries by hydrologic year type, and the DEIR also addresses the causes of increasing demand and increased requests for Table A deliveries in the SWP service area. See FEIR Subsection 6.3.1, starting on page 6-12.

Page 18, lines 15-19. The comment asks the Department to support the conclusion that increased SWP deliveries were largely independent of the proposed project. The statement that total annual deliveries to contractors were affected very little by the Monterey Amendment is accurate. Increased demand for water within contractor service areas and wetter than normal hydrologic conditions are the major reasons for increased requests and increased deliveries from 1994 to 2003. The total annual deliveries of SWP water are largely a function of Delta export constraints except when the project is demand-limited, in which case demands in the contractors' service areas determine the amount of deliveries. Demand for SWP water also varies with the availability to contractors of other sources of water. Analysis of historical data for the period 1996 through 2005 indicated that cumulative total deliveries to contractors in the absence of the Monterey Amendment would have been about 44,000 AF less over the nine-year period as compared to actual with-Monterey Amendment deliveries. However, as noted in the DEIR, future deliveries to contractors and diversions from the Delta could increase by an average of 50,000 AFY, partly offset by the retirement of 45,000 AF of Table A and further constrained by new regulatory constraints. See DEIR Subsection 6.4.5 starting on page 6-64. See also FEIR Subsections 15.2.2 and 15.2.3 on the effect of the water supply management practices and how most increases in deliveries since 1996 were not due to the Monterey Amendment.

Page 19, lines 12-13. The comment addresses the effects of the proposed project on agricultural deliveries in wetter year types. CALSIM II modeling and analysis of historical data both show a reduction in Table A deliveries to agricultural contractors with the Monterey Amendment. See DEIR Subsection 6.4.5. Historical data show that irrigated acreage decreased in three out of four districts in Kern County most affected by the Monterey Amendment after 1996 as shown in the DEIR (Table 7.6-3). The Monterey Amendment increased the reliability of agricultural contractors' SWP water supply in dry years and reduced their SWP deliveries in wet years.

Page 19, lines 39-40. The comment notes that CALSIM II is not programmed to replicate the water supply management practices and that those effects must be addressed. Because CALSIM II could not be used to simulate the effects of the water supply management practices, those practices were analyzed using historical data. See DEIR Subsection 6.4.5. The DEIR stated that the water supply management provisions could increase Delta exports and increase deliveries to contractors (DEIR page 8-6). The FEIR in Chapter 8 updated the growth inducing impacts analysis to include potential increases in water supply reliability in dry year sequences as a result of the water supply management practices, particularly the out-of-service-area storage provisions. In spite of the uncertainties of considering dry year supplies as a constraint to growth, this analysis helps clarify the maximum potential for growth inducement under dry year conditions. The analysis does not change the final conclusion in the DEIR that there are potential growth-inducing impacts, that the growth-inducing assumptions are very conservative and overstate the potential for growth inducement, and that analysis of the environmental impacts and mitigation measures is done at the local level. See FEIR Subsection 8.2.4.

Page 20, lines 23-24. The comment requests an estimate of the impacts of out-of-service-area storage on critically-dry year deliveries. As noted above, out-of-service-area storage was evaluated along with the other water supply management practices and the impacts described in the DEIR and updated in this FEIR. Out-of-service area storage primarily benefits municipal contractors. It can improve critically dry year deliveries to municipal contractors because in such years the municipal contractors would be able to supplement their allocation of SWP water by withdrawing water stored outside their service areas that was placed in storage during wetter times. See DEIR Subsection 6.4.3 on changes in SWP operations and deliveries induced primarily by water supply management practices. Also see FEIR Subsection 8.2.4.

Page 21, lines 4-5. The comment requests an estimate of the impacts of out-of-service-area storage on average and critically dry year deliveries. In the future, the DEIR identified a potential for an average annual increase in exports of about 50,000 AF from the water supply management practices, particularly out-of-service area storage. Historical data indicate that contractors that use the out-of-service-area storage provision of the Monterey Amendment would not use it to increase deliveries every year but would use it to develop a reserve for use in very dry periods. The size of the increase in critically dry year deliveries would depend on management decisions by the storing contractors and by physical limitations. The amount of water that can be recovered from groundwater banks is limited by pumping and conveyance capacity. See DEIR Subsection 6.4.3 and FEIR Subsection 8.2.4.

Page 21, line 30. The comment also addresses the impacts of out-of-service-area storage on average and critically dry year deliveries as well as actions proposed to address San Luis Reservoir low point water quality issues. With respect to the effects of water supply management practices on dry year deliveries, see the response to comment on page 21, lines 4-5. Although all the water supply management practices are included in this analysis, storage outside the service area and flexible storage have the greatest potential for significant environmental impact. With respect to proposals addressing the San Luis Reservoir low point issues, no defined solution has yet been identified. Such actions are not addressed in this EIR, and any such actions would require separate CEQA and NEPA coverage. Also see DEIR Subsection 6.4.3 and FEIR Subsection 15.2.4.

Page 22, lines 34-41. The comment addresses language in the interim draft document that indicated carryover storage increased SWP deliveries. The analysis referred to in the comment was inaccurate. A detailed analysis of the effects of extended carryover storage in San Luis Reservoir on SWP deliveries in conjunction with all of the water supply management practices was later developed and presented in the DEIR in Chapter 6 and in Appendix K. The results of the analysis are described in the DEIR (Chapter 6 pages 6-55 through 6-57). In summary, the routine use of extending carryover storage by a contractor would slightly increase annual average deliveries to that contractor at the expense of contractors that did not use extended carryover. Extended carryover would have very little effect on total deliveries of SWP water. See FEIR Subsection 15.2.4.

Page 23, line 20. The comment requests information on how use of flexible storage would affect critical year supplies of the three affected contractors. The DEIR describes flexible storage and its effects on deliveries (Chapter 6 pages 58 and 6-59). A contractor could increase its dry year SWP supplies by supplementing its allocation with water borrowed from one of the terminal reservoirs. Flexible storage would have very little effect on total deliveries of SWP water because any borrowing would have to be paid back within a maximum of five years and would generally be repaid from the borrowing contractors' available SWP supplies. See FEIR Subsection 15.2.5.

Page 24, line 16. The comment requests quantification of the Turnback Pool supplies on SWP deliveries. The DEIR describes the impacts of the water supply management practices, including the Turnback Pool, on deliveries (Chapter 6 pages 6-57 and 6-58). Between 1996 and 2004, the Turnback Pool was used to transfer an average of about 140,000 AFY. Contractors have made much less use of the Turnback Pool in recent years as urban contractors, the source of most offers to the Turnback Pool, increasingly need their entire supplies to meet demand within their service areas, have reduced their offers to sell water through the pool. Contractors selling water through the Turnback Pool recover only a portion of their costs. See FEIR Subsection 15.2.6.

Page 24, line 25. The comment requests quantification of the water supply management practices on SWP deliveries. The DEIR contains a summary of these effects on SWP deliveries (Chapter 6 pages 6-59 through 6-60 and 6-63).

Page 26, line 22-23. The comment refers to a statement that "some urban contractors took advantage of Monterey Amendment management strategies that enabled them to offset the effects of the elimination of ag-first cutbacks," and questions whether more contractors would be likely to do this in the future. The elimination of ag-first cutbacks reduces the allocation of water to municipal contractors in dry years potentially increasing their vulnerability in droughts. However, some municipal contractors offset this potential reduction by acquiring additional Table A from the agricultural contractors, and some began storing water outside their service areas for use during dry years. Most of the M&I contractors for whom outside-of-service area storage is advantageous made use of the provision between 1996 and 2004. Other M&I contractors may use the provision in the future if sufficient SWP water supplies are available to allow such storage. Additional transfers of Table A from agricultural contractors to M&I contractors beyond 130,000 AF could provide added offset to the delivery reductions but are not part of the proposed project and such actions would likely require additional CEQA coverage.

Page 26, line 32. The comment questions a statement in this early draft that that MWDSC probably did not offset dry year losses by storing water in Semitropic. The statement is not included in the DEIR. It is estimated that Table A transfers and retirements and the altered water allocation procedures would result in a decrease in annual average deliveries to MWDSC under 2020 conditions (DEIR Table 6-25). It is not expected that that MWDSC could offset this loss by placing water in out-of-service area storage because of that agency's loss of part of its Colorado River supply (see Response to Comment 1-1) and recent regulatory changes have reduced the ability of the SWP to meet MWDSC's delivery requests.

Page 29, line 42-43. The comment asks if historical deliveries to agricultural contractors have declined since the signing of the Monterey Amendment. Table A deliveries to agricultural contractors have decreased since 1996 in wetter years and increased in drier years. (California Department of Water Resources, Bulletin 132-05).

Page 30, lines 45-46. The comment asks for information on out-of-service-area storage impacts in the future. The DEIR summarizes the effects of the water supply management practices on SWP operations (Chapter 6 pages 6-59 through 6-60 and 6-63) and of all Monterey Amendment-Induced Changes on SWP operations (pages 6-64 through 6-65. SWP water delivery to KWB lands is discussed in DEIR Appendix E.

Page 34, line 5. The comment asks if revised allocation methods have adversely impacted agricultural contractors. Table A deliveries to agricultural contractors have decreased since 1996 in wetter years and increased in drier years. (California Department of Water Resources,

Bulletin 132-05). No significant adverse impacts to agricultural contractors have been identified. See DEIR Section 7.6.

Page 32, line 16. The comment asks if Turnback Pool and carryover deliveries affect availability of surplus water to agricultural contractors. The Turnback Pool provided additional water to those agricultural contractors that bought pool water sold by M&I contractors. The extended carryover provision would not affect the availability of surplus water to agricultural contractors. However, after 1996, agricultural contractors did not have preference over municipal contractors with respect to allocation of surplus water, and thus likely received less surplus water as a result of that provision.

Page 34, line 24-25. The comment asks how the reduced demand scenario in the 2005 State Water Plan would affect the ability of M&I agencies to offset reductions in dry and critical year supplies. The reduced demand scenario would have no effect on any of the impacts in the EIR. The primary offset technique was the purchase of added Table A from agricultural contractors. No added transfers of that type are available without added CEQA coverage and Department approval. The ability to use the out-of-service area storage provisions of the Monterey Amendment to offset losses associated with the elimination of ag-first cuts depends on the ability of the SWP to export water from the Delta in excess of contractors' immediate service area needs. Recent changes in regulatory constraints have reduced the ability of the SWP to export sufficient water to meet contractor requests. Demand in contractor service areas would have to decrease well below the estimates in the reduced demand scenario to allow sufficient free supplies for out-of-service-area storage under current conditions.

Page 34, lines 41-44. The comment questions a statement that M&I contractors with groundwater storage in their service areas would not be adversely affected by critical year supply reductions. The original statement is not correct and is not included in the DEIR or FEIR.

Page 41, Table WB-3. The comment asks for disaggregation of water types and accompanying text. The DEIR includes quantitative estimates of the effects of various provisions of the Monterey Amendment on SWP deliveries (Chapter 6). The Bulletin 132 series provides highly detailed tabulations of water types by contractor and by year. The Department did not include that level of detail in the DEIR because it was unnecessary to address the impacts of the proposed project.

Page 45, Table WB-3. The comment asks how carryover, Turnback Pool water, KWB water, and non-project water are tabulated. Tables 6-14 through 6-25 are used in the DEIR as the successor tables to draft Table WB-3. They show the effects of Table A transfers and retirements and the altered allocation method on SWP deliveries. They do not account for the effects of the water supply management practices. The effects of the water supply management practices are analyzed separately in Chapter 6 using historical data. Non-project water is not included in these evaluations, except as listed in DEIR Table 6-2. Other water types are addressed in the DEIR as necessary for impact evaluations (including in Appendix K). The Bulletin 132 series provides highly detailed tabulations of water types by contractor and by year.

Page 51, Table WB-9. The comment notes the use of the Semitropic water bank for the majority of out-of-service-area banking by SWP contractors, and notes the proposed expansion of the bank. The use of existing water banks and the rate of construction of new water banks will depend on demand for them. Demand is likely to be limited by uncertainties surrounding the ability of contractors to divert sufficient water from the Delta to fill water banks. The FEIR addresses changes in regulatory constraints that are reducing SWP exports and thereby

reducing opportunities to place SWP water in groundwater storage. Issues related to the possible expansion of the Semitropic water bank are not part of the Monterey Amendment.

Page 50, Table WB-8. The comment asks whether MWDSC could offset its allocation reductions resulting from elimination of the agriculture-first cuts by creative use of Diamond Valley Lake storage and use of the water supply management practices. The table referred to, in common with the corresponding tables in the DEIR (Tables 6-14 through 6-25), show only the effects of the Table A transfers and retirements and the altered allocation methods. The accompanying text explained this. The effects of the water supply management methods practices were analyzed separately using historical data. It is not expected that that MWDSC could offset this loss by placing water in out-of-service area storage because there are only limited opportunities to pump more water from the Delta to place in storage. Water management practices would not be expected to have any impact on storage in Diamond Valley Reservoir since it is an in-service area storage area. This issue is covered in greater depth in FEIR Subsection 8.2.4.

## Response to Comment 30-94

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-94 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments that question where water for borrowing and payback will come from, when as the comment states, "these changes, rather than benign shifts in project management, may prove to compound the problem of decision-making grounded in 'paper' rather than actual water."

Since that time and in part to respond to these comments, the description of flexible storage has been changed. DEIR Subsection 6.4.3 does include a description of how a contractor can pay back water. See also FEIR Subsection 15.2.5.2. See also FEIR Subsection 15.2.5.4 for a discussion of flexible storage and "paper water." As noted in these sections, the water borrowed and paid back is real water. It is water delivered from the reservoir, and can be repaid by a portion of the contractor's allocated Table A water for that year.

The comment also suggests that the program allows a shift towards local management. The operation of the terminal reservoirs is still part of the SWP and under the authority of the Department, and not, as the comment indicated "shifting toward local management."

## Response to Comment 30-95

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-95 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and

was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the EIR and states that all the provisions of the Monterey Amendment analyzed in the original EIR should be revisited with regard to the question of "paper water." See Response to Comment 30-94 and FEIR Subsections 15.2.5.2 and 15.2.5.4.

## Response to Comment 30-96

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-96 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the EIR and asks for the reasons for the sizing of the terminal reservoirs, and suggests that the use of flexible storage at Castaic Lake would impact the operations of the pumped storage operations. The Department has provided in Chapter 2 of the DEIR a description of the SWP for background information. A detailed description of the sizing and design criteria for the SWP facilities is not relevant to the project description.

The contractors' use of Castaic Lake and Lake Perris is described on page 6-58 of the DEIR. The Department notes that flexible storage withdrawals do not impact pumped storage operations upstream of Castaic Lake in Elderberry Forebay. This Forebay provides the regulatory storage for Castaic Power Plant, and is separated from Castaic Lake by Elderberry Forebay Dam. For more information on the SWP, see the Department's Bulletin 200 series, dated November 1974.

## Response to Comment 30-97

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-97 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the EIR and asks for the DEIR to explain the original purposes of the flexible storage reservoirs and notes that the baseline operations at these reservoirs should include years "agreed upon by the EIR committee" and refers to the 73-year hydrologic period.

The 73-year hydrologic period is used when modeling portions of the proposed project using CALSIM II. The version of CALSIM II used in the analysis does not include the contractors' borrowing from the terminal reservoirs. To do so would require changes to the model that were not considered necessary since an adequate analysis was done without the use of CALSIM II.

The DEIR provides information on actual operations of the two terminal reservoirs before the Monterey Amendment (1974 through 1995) and after the Monterey Amendment. The information is useful because it indicates how the contractors might use their new ability to borrow and return water from the terminal reservoirs. It was recognized however that borrowing in the first 10 years after the Monterey Amendment might be atypical because the period was relatively wet. Consequently, the environmental analysis assumed that the contractors might borrow the maximum allowed under the Monterey Amendment and avoid repayment for the maximum period allowed, five years. Thus, the analysis in the DEIR represents a worst case scenario from the point-of-view of environmental impacts.

The comment also asks for a more detailed description of the terminal reservoirs and their purpose. Chapters 2 and 6 of the DEIR (pages 2-4, 2-5 and 6-58) explain the purpose of the use of Castaic Lake and Lake Perris for flexible storage. Castaic Lake and Lake Perris are terminal storage reservoirs that help meet peak water supply demands and provide emergency storage, recreation, and fish and wildlife enhancement. Additional information is found on DEIR page 6-58. It is outside the scope of the project description to get into a detailed description of the planning and design of the terminal reservoirs, which were designed in the 1960s. It is also noted in the description of the facilities in DEIR Section 2.2 on pages 2-4 and 2-5 that the two reservoirs serve as regulatory and emergency water supply facilities for the “East Branch” and “West Branch” of the California Aqueduct.

The comment also mistakenly implies that pumped back operations affect Castaic Lake. See Response to Comment 30-96 where this operation is clarified.

## Response to Comment 30-98

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-98 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League’s comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the EIR and indicates that the EIR is missing the description of the flexible storage operations and assumes that there are more criteria for the flexible operations.

The description of the flexible storage operations is complete and described in DEIR Section 5.5 and Subsections 4.4.4 and 6.4.3 (pages 6-58, 6-59, 6-61, and 6-62). The comment mentions information missing from DEIR Subsection 7.3.4.1. The Department notes here that the environmental impact to fisheries is found in DEIR Section 7.3, specifically Impact 7.3-7. As part of the impact discussion there is a detailed description of the terminal operational assumptions and criteria.

The comment asks what portion of the flexible storage is used by MWD. The percentages for each participating contractor are in the Monterey Amendment which is included in the DEIR as Appendix C. For the purpose of analyzing the environmental impact, what is important is the maximum amount of combined storage that could be used by the participating contractors. The maximum amount is discussed in the DEIR as noted above.

The comment also asks if the local use of the reservoirs interferes in the delivery of water to all contractors "equitably." The terminal reservoir operation is a separate process which has nothing to do with the allocation of available SWP supplies to all contractors and its subsequent delivery. See FEIR Subsection 15.2.5, especially 15.2.5.3, for more discussion on paying back water used under the flexible storage provisions.

Lastly, the comment notes that the DEIR must differentiate the use of the terminal reservoirs by the participating contractors from the use as a part of the SWP. On page 6-58 of the DEIR it is made clear that the Department owns and operates the terminal reservoirs by stating, "When water has been borrowed from the reservoirs, the Department has often refilled the reservoirs, as water and off-peak energy become available to it, before the contractors wished to replace the water they had borrowed. If the reservoirs were full by the time the contractors wished to replace the water, the Department credited the contractors with the replacement water and that water became part of the SWP's supply." As discussed in FEIR Subsection 15.2.5.1, although there may be disagreements among the Department and some of the contractors as to exactly how the reservoirs should be operated, it is recognized by the Department and the contractors that meeting the purposes of the reservoirs, including flexible operations, means that the reservoirs may be drawn down substantially at times as shown in DEIR Figures 7.1-4 and 7.1-5. While unlikely, in a worst-case scenario it is possible that the reservoirs could be drawn down to half their maximum capacity. See FEIR Subsection 15.2.5.3 on the worst-case scenario.

## Response to Comment 30-99

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-99 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in September 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document indicates that the analysis of Castaic Lake and Lake Perris is incomplete, and the EIR needs to address additional factors such as the source of payback water, the certainty of payback, what happens if the contractor does not pay the water back, and additional questions on the pumped storage capability between Pyramid and Castaic reservoirs. See FEIR Subsection 15.2.5 on the payback of borrowed water. See the Response to Comment 30-96 on the pumped storage capability between Pyramid and Castaic reservoirs.

## Response to Comment 30-111

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-111 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR

(Comment Letter 30). Specifically, the interim document presented comments on the growth inducement analysis chapter of the DEIR, specifically, the descriptions of storage outside the service area and growth inducement. See DEIR and FEIR Chapter 8 on growth inducement.

The comment mistakenly assumes that the "Agency" reference in the Monterey Amendments refers to the "Resources Agency," and asks the Department to assess public funding for the storage programs for the contractors. The "Agency" in Article 56(b) of certain contracts refers to the contractor signing the Monterey Amendment rather than the Resources Agency. In many contracts, the term District is used rather than Agency, depending on the legal form of the contractor. However, even if the Resources Agency had "spent considerable public funds helping develop groundwater storage and related conveyance capacity," evaluating the Resources Agency's grants and policies is not within the scope of the Monterey Plus EIR. The Department recognizes that there are a number of efforts underway to fund groundwater storage and other local water supply programs. These are discussed briefly in FEIR Chapter 5, Subsection 5.2.3.2. The Department does note that the costs in establishing groundwater storage programs are typically shared by the water agencies storing water in the groundwater storage program.

## Response to Comment 30-112

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-112 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the growth inducement analysis, specifically, the descriptions of the Turnback Pool and growth inducement. See DEIR and FEIR Chapter 8 on growth inducement.

The comment first states that there was a Turnback Pool prior to the Monterey Amendment. This statement is incorrect. The number shown in the comment's table was obtained from Bulletin 132-88, and is actually surplus and unscheduled water (114,907 AF), not Turnback Pool water.

The comment also asks if contractors have temporarily reduced Table A amounts and received the associated rate reductions. Pursuant to the water supply contract, Article 7(a) provides changes in a contractor's annual Table A amounts, if such changes do not impair the financial feasibility of SWP project facilities. The County of Butte has reduced its Table A annually since 1978 due to less demand for SWP water than they had anticipated years ago. Plumas County FC&WCD has also reduced their Table A amount since 2004. This provision may have reduced the amount of water offered to the Turnback Pool mainly by the County of Butte. The unallocated Table A was therefore a benefit to other contractors in that it may have then been reallocated or used to meet SWP operational requirements.

See FEIR Subsection 15.2.6 on the impact analysis of the Turnback Pool. See also Response to Comment 30-112 in FEIR Chapter 8.

## Response to Comment 30-113

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-113 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the growth inducement analysis chapter of the DEIR, specifically the descriptions of the carryover storage and growth inducement. See DEIR and FEIR Chapter 8 on growth inducement.

The comment notes that carryover has increased in the eight years since Monterey, and asks if it will continue to increase in the future. The Department cannot predict future scheduling of the contractors; however, the carryover of water from year to year is one way for contractors to hedge against a dry winter-spring and resulting low SWP allocations. The Department does note that most contractors have reached their maximum contract Table A amounts and therefore the amount of SWP water scheduled for carryover has probably reached a peak. Water actually delivered in the following years also depends on the refilling of the SWP reservoirs, notably San Luis Reservoir. If San Luis fills in January, the amount of carryover water taken is less than if San Luis fills in April (thus providing more time for a contractor to take delivery of carryover water); so hydrology is also a major factor in how much Article 56(c) is delivered. The DEIR does note the increase in Section 5.5 of the DEIR, stating "Article 56 out-of-service-area water storage programs have increased the amount of water the contractors have stored both in groundwater storage programs and as extended carryover in San Luis Reservoir." See FEIR Subsection 15.2.4 for more information on carryover water.

The comment also presents data from Bulletin 132 from 1998-2002, and incorrectly states that such numbers are Article 55 non-project water delivered to SWP contractors. The numbers are derived from Table 9-3 of each bulletin, Column 12, "Other water deliveries." As noted in the footnotes of DEIR Table 9-3, "Other water deliveries" consist of local water, general wheeling, USBR exchange water, and floodwater. The pre-Monterey general wheeling is close to the post-Monterey Article 55 non-project water. Therefore, of the 99 TAF in 1998 that the comment notes is non-project water, only 9 TAF is general wheeling, 30 TAF is local water (for example water right water moved in SWP facilities), 30 TAF is floodwater, and 30 TAF is exchange water between a non-SWP contractor who will return such amount in that year or future years. Of the 9 TAF, only 3 TAF is truly Article 55 water as presented in DEIR Table 6-2. Exchanges also occurred pre-Monterey but do not fit under the Article 55 category. As noted in Subsection 15.2.7, Article 55 clarifies the terms and conditions for conveyance of non-SWP water using SWP facilities, but has no effect on deliveries of SWP water. Because the Department is required by the California Water Code to transport water for others in SWP facilities when capacity is available to do so, this provision neither increases nor decreases the contractors' ability to convey non-SWP water using SWP facilities. See FEIR Subsection 15.2.7 on non-project water.

See also the Response to Comment 30-112 in FEIR Chapter 8 on Growth-Inducement.

## Response to Comment 30-114

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-114 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the growth inducement analysis chapter of the DEIR, specifically the descriptions of the impacts of the proposed project on the Delta and growth inducement. In the DEIR, impacts of the water supply management practices on fisheries and the Delta is discussed in Section 7.3. Growth inducement is discussed in Chapter 8 of the DEIR.

The comment refers to several of MWDSC's documents. Although the details of local water management documents are outside the scope of this EIR, the MWDSC document which indicates an increase in the use of these management practices is probably correct. DEIR Subsection 4.3.1 states that one of the objectives of the proposed project was to: "Facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies." See FEIR Subsection 15.2.2 which discusses the effect of all of the water supply management practices as a group. See FEIR Subsection 4.2.1.3 on scope of the EIR, Subsection 8.2.2.2 for a discussion on the Department's responsibility with regard to local land use decision-making, and FEIR Subsection 9.2.6 for the Department's role in water reliability planning.

The comment asks for the impact to south-of-Delta supply and environmental impacts from the water supply management practices. The water supply management practices are described in DEIR Chapter 4, beginning with Subsection 4.4.4 and are discussed in greater detail in Chapter 6 beginning at Section 6.4. The impacts on water supply are detailed in DEIR Subsection 7.1.3. Appendix K provides the computations supporting the analyses. Other environmental impacts are discussed in DEIR Chapter 7, beginning at Section 7.2. Also see FEIR Subsection 15.2.2 for increased deliveries resulting from the water supply management practices and Subsection 7.2.2.1.3 for impacts and mitigation measures with regard to Delta fisheries.

In response to the comment's question about how the proposed project affects MWDSC's water reliability, see FEIR Chapter 13 Subsection 13.2.4. See also FEIR Chapter 9 on reliability of water supplies and growth.

Lastly, the comment asks that the Department "make a thorough and convincing effort to explore the potential effects of these provisions on the timing and amount of exports, deliveries." The DEIR has disclosed the potential effects of the Monterey Amendment on the timing and amounts of exports and deliveries. See FEIR Subsection 7.2.2.2. See also Response to Comment 30-112 in FEIR Chapter 8.

## Response to Comment 30-119

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor

Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-119 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in June 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the water supply chapter and the descriptions of the impacts of the proposed project on water supply. In the DEIR, the subject is discussed in Chapter 6 Effects of the Proposed Project on the SWP and SWP Contractors.

Most of the comments are directed to the analysis of the effects of the proposed project on SWP and SWP Contractor Operations. See Response to Comment 30-119 in FEIR Section 6.3.

The comment also asks for clarification on how water stored in a groundwater program outside of service area is returned for storing partners north of Semitropic. The Department adds such clarification here. See also further discussion on groundwater storage outside the service area in FEIR Subsection 15.2.4. If a storing partner is located north (or upstream on the California Aqueduct) of Semitropic WSD, there are two ways in which it receives its banked water: Option A, by exchange of a portion of Semitropic's share of KCWA Table A deliveries and Option B, by delivery of SWP water in exchange for water pumped from the Semitropic area and into the California Aqueduct.

In Option A, Semitropic will relinquish, for example, 100 AF of its allocation of KCWA's Table A water to SCVWD, in exchange for a like amount (100 AF) of SCVWD's stored water to be vested to Semitropic. Semitropic can then pump and use the 100 AF to replace the 100 AF that it relinquished to SCVWD, making each party whole. Alternatively, if Semitropic does not have immediate need for the 100 AF, it can retain such water in the groundwater basin for future use. the Department will provide the 100 AF from Delta exports and then deliver it to SCVWD through the South Bay Aqueduct.

In Option B, return water may be pumped from the groundwater basin and introduced into the California Aqueduct, for exchange with SWP water supplies. A like amount of SWP water supplies is then delivered to SCVWD concurrently through the South Bay Aqueduct.

The comment also notes that water stored by contractors located north of Semitropic WSD is in excess of Semitropic's Table A amount, and that water stored for banking partners should be limited to Semitropic's portion of KCWA's Table A. For clarification, in the two-party agreements between Semitropic and the groundwater storage partners, there are contractual annual limits as to how much water can be returned by exchange of Semitropic's portion of the KCWA Table A. For example, Semitropic retains at a minimum 22,000 AF of its portion of KCWA Table A, leaving an annual balance of up to 133,000 AF that it could return amongst all of the groundwater storage partners. This amount is then prorated based on each participant's share of storage allocation in the 1 million AF groundwater storage program. Additionally, since this real water was either directly stored in the groundwater basin or used in-lieu of pumping, water can be pumped from the groundwater basin. The amount to be returned to the banking contractors in a dry year will likely be limited more by local conveyance and recovery well rates than by Semitropic's 133,000 AF of Table A. Full withdrawal of all banked water would require multiple years.

## Response to Comment 30-121

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-121 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the water supply chapter and the descriptions of the impacts of the proposed project on water supply. See DEIR Chapter 6 Effects of the Proposed Project on the SWP. The comment notes that the KWB and water management practices are not included in the CALSIM II analysis.

The comment is correct in that CALSIM II has not been programmed to analyze these more subtle changes in how the SWP is operated. These actions are analyzed using separate tools that are discussed in Chapters 5 and 6 of the DEIR. As noted in DEIR Section 5.5, all of the water supply management practices, including the KWB, conveyance of non-project water and borrowing from terminal reservoirs are included in Study Numbers 2 and 3 (DEIR Appendices F and K). Study No. 2 is the historical operations analysis and includes the KWB Lands project as a locally owned facility. Study No. 3 is the future impacts analysis. In addition, since Alternative 5 is the same as the proposed project except for the exclusion of water supply management practices, a comparison of the alternative to the proposed project will show the effect of the water supply management practices. As described on page 6-53 of the DEIR, the conveyance of non-project water did not change as a result of the Monterey Amendment, and therefore there is no change in any environmental impacts from the conveyance of non-project water. DEIR Table 6-2 itemizes the quantities of non-project water transferred through SWP facilities from 1987 through 2005. Borrowing from terminal reservoirs is addressed in Subsection 6.4.3 of the DEIR. The resulting impacts are addressed in DEIR Chapter 7. See also FEIR Subsections 15.2.1 for a summary of the water supply management practices and impacts identified in the DEIR, 15.2.2 for a discussion of the effect of water supply management practices on deliveries, 15.2.3 for a discussion of water supply management practices and demand, 15.2.4 on storage outside a contractor's service area, 15.2.5 for a discussion of flexible storage, 15.2.6 for a discussion of turnback pool, and 15.2.7 on the transport of non-project water. See also FEIR Subsection 6.3.2.3 for more on use of CALSIM II and the historical analysis.

## Response to Comment 30-122

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-122 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the water supply chapter and the descriptions of the impacts of the proposed project on water

supply. In the DEIR, the subject is discussed in Chapter 6, Effects of the Proposed Project on the SWP.

The comment notes that the water supply management practices increase Delta exports. This comment is correct. The increase in Delta exports is discussed in FEIR Subsection 15.2.2. The water supply impacts of the proposed project as a whole are described in DEIR Chapters 6 and 7 (Subsections 6.4.5 and 7.1.3). See also Response to Comment 30-122 in FEIR Section 6.3.

## Response to Comment 30-123

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-123 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the water supply chapter and the descriptions of the impacts of the proposed project on water supply. In the DEIR, the subject is discussed in Chapter 6 Effects of the Proposed Project on the SWP. The comment notes that the Department should develop a range reflecting the potential impacts individually from *each* of the water supply management practices.

The Department separated the analysis of the impacts of allocation changes, transfers, and retirements from the analysis of the water supply management practices. The allocation changes, transfers, and retirement actions perform as an integrated whole, and lend themselves to the analysis as a group of actions. The water supply management practices are a cohesive, integrated group as well, and interact with each other through the storage analysis in San Luis Reservoir. It would be possible (but not valid) to dissect the historical analysis spreadsheets in DEIR Appendix K to approximate the impacts of some of the actions in isolation from other actions. However, each permutation of actions would have different results, and the conclusion would be that the out-of-service-area storage provision has the greatest impact on Delta pumping and the greatest benefit to the volume of stored water for later contractor extraction and use. The impact of stored water on deliveries to contractors depends on the rate at which stored water can be extracted and delivered, decisions on whether and when to withdraw the stored water, and the total volume of stored water available for extraction, all factors that are speculative at this time. However, FEIR Subsection 8.2.4 addresses possible scenarios for withdrawal of stored water during drought situations, and the potential impact of the stored supplies on growth inducement.

An analysis of each management practice in isolation is not valid because changes in one management practice would affect other practices. For example, eliminating carryover would change the delivery pattern of those contractors that use the carryover program because they would schedule and store water differently, using higher-cost storage facilities to preserve water supplies from converting to project supplies at year-end. These changes in contractor behavior would change the historical storage parameters of San Luis Reservoir in ways that cannot be predicted by the Department because the situation has no real precedent, and conclusions as to the impacts of the remaining practices would be too speculative.

Similarly, estimates of future operations with a different mix of water management practices are even more speculative than for the historical case because of the observed reduction in use of the Turnback Pool, potential climate change, and pumping restrictions for the protection of fish.

Although the EIR does not develop a numerical range of the potential water supply changes attributable to each water supply management practice separately, the DEIR does include a numerical range reflecting water supply impacts of the outside-of-service-area groundwater storage, as in Table 6-26 and as related to growth inducement in Chapter 8.

The comment also notes that "extensive records exist of groundwater banking and water marketing activities promoted by Monterey" and suggests that based on these records and know physical capacities of facilities, some range of potential supply impacts should be derived. Although the details of local water management documents are outside the scope of this EIR, the DEIR recognizes in Section 7.2 that about 616,000 AF was stored in groundwater storage programs that received approval after implementation of the Monterey Amendment, but also notes throughout the DEIR that 7 of the 10 years from 1996 to 2005 were at or above the "Above-Normal" water year classification. As far as deliveries to the KWB Lands, this action did not constitute an outside-of-service-area program except for Dudley Ridge WD because the participants comprise KCWA member units delivering water within the KCWA service area. See FEIR Subsection 15.2.2 for a discussion of added deliveries attributable to the water supply management practices. With respect to out-of-service-area storage analyses, as described in DEIR Chapter 6 (page 6-15), the Department interviewed the contractors that stored in the Kern groundwater storage projects during that period and determined that there was capacity within each contractor's service area to store water locally in at least the same quantities that each contractor stored in Kern County groundwater basins. The Department believes that the requisite facilities and storage capacities were in place to allow such local storage to occur based on discussions with each contractor that stored water during the historical analysis period. However, that assumption was not employed for the future analysis. In that case, it was assumed that the same rate of storage in groundwater facilities would continue, but that the added storage activity would increase Delta diversions 1:1. In other words, the local groundwater storage opportunities were assumed to be full or unavailable, and the added demand for stored water outside of the contractors' service areas would translate to an equivalent increase in Delta pumping during winter and spring months when San Luis Reservoir had filled and Article 21 water could be delivered. Although the Department recognizes that there was an increase in deliveries during this historically wet period, the Department has concluded throughout the EIR that only a portion of those deliveries was caused directly by the Monterey Amendment. See FEIR Subsection 15.2.3.3.

See FEIR Subsection 4.2.1.3 on scope of the EIR, Subsection 8.2.2.2, for a discussion on the Department's responsibility with regard to local land use and water management decision-making, and Subsection 9.2.6 for the Department's role in water reliability planning. See FEIR Subsection 16.2.7 for use of the KWB Lands.

Footnote 4 in this comment states that Turnback Pool operations may continue to be relevant in the future due to projected agricultural demands decreasing in the future. Regardless of whether agricultural demands increase or decrease, the offering contractors have been predominately M&I contractors that will need the full use of their SWP supplies to meet the needs of California's growing population. Under this scenario, there will be little water offered from the M&I contractors to the Turnback Pool. See FEIR Subsection 15.2.6.

## Response to Comment 30-125

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-125 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the water supply chapter and the descriptions of the impacts of the proposed project on water supply. In the DEIR, the subject is discussed in Chapter 6 Effects of the Proposed Project on the SWP. The comment indicates that the EIR, in its early stage of development, showed no quantifiable increases in diversions by the SWP or CVP as a result of the proposed project and puts forth PCL's view that the water supply management practices increase Delta exports.

The DEIR states that the Table A allocation changes did not have an impact on Delta exports, but that the water supply management practices do affect Delta exports. The DEIR presents a complete picture of the magnitude and timing of exports caused by the Monterey Amendment. The comment also suggested a review of the historical record and a thorough exploration of the water marketing, groundwater storage, management flexibility provisions of the Amendments and their effect on SWP/CVP exports and the growth and other activities it supports. See FEIR Subsections 15.2.2 on the effect of the water supply management practices and Subsection 15.2.3 on the interrelationship of the water supply management practices and demands.

See also Response to Comment 30-125 in FEIR Chapter 16 for a discussion of the KWB Lands.

## Response to Comment 30-126

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-126 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the water supply chapter and the descriptions of the impacts of the proposed project on water supply. In the DEIR, the subject is discussed in Chapter 6 Effects of the Proposed Project on the SWP. The comment first cites a report prepared by the Public Policy Institute of California entitled "California's Water Market by the Numbers." The report is cited to show that there was an increase in SWP water transfers within the SWP following the post-Monterey Amendment. Similarly, several examples are given of brochures prepared by groundwater banking programs that the comment cites as evidence that groundwater banking leads to increases in water supplies.

That observation of an increase in SWP transfers within the SWP following the Monterey Amendment is correct for the historical period. However, some of that increase can be

attributed to the Monterey Amendment and some is attributable to other sources. The information in the report cited is not a thorough analysis of the Monterey Amendment. The DEIR provides a more thorough and complete analysis of the proposed project. However, the Department notes that the numbers in the Public Policy report do not reflect how much water was actually sold or delivered in the Turnback Pool or other Monterey Amendment facilitated actions. For example, in 1998, the Department purchased unsold pool water which was approximately 99,000 AF (the Department records). As stated in a Notice to SWP Contractors, that water will "provide additional carryover storage for contractors to support 1999 water allocations." Therefore, the unsold pool water that reverted to SWP project water did not create any Delta impacts. The comment also notes that the Turnback Pool in practice meant water going from urban users to agricultural users. That observation is also generally correct, with some exceptions. However, as urban agencies experience increased demand from urban growth within their service areas, the availability of water for the Turnback Pool will decline. That trend is evident today. See FEIR Subsection 15.2.6.

The comment also indicates that the EIR in its early stage of development showed no quantifiable increases in diversions by the SWP or CVP. The Monterey Amendment does not contribute to increases in diversions by the CVP. The only change resulting from the Monterey Amendment that has the potential to cause increased exports and adverse impacts on Delta fisheries is the implementation of the water supply management practices. The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

The comment notes that CALSIM II does not model the water supply management practices. Water supply management practices were modeled using a historical analysis. See FEIR Subsection 6.3.6.3. The use of KWB facilities as out of contractor service area storage is included in the analysis of the impact of water supply management practices; however, Dudley Ridge WD is the only other SWP contractor aside from KCWA members and is allocated 9.6 percent of the storage capacity. See FEIR Subsection 15.2.2 on the effect of the water supply management practices on deliveries. The quantity of water stored in Kern County groundwater basins potentially available for withdrawal to supplement contractor water supplies is itemized in DEIR Table 6-26. The actual impact of extracting groundwater on individual contractor water supplies is dependent on available extraction rates, the total volume available, and contractor decisions, including whether and when to withdraw the stored water, all factors that are speculative at this time. However, FEIR Subsection 8.2.4 addresses possible scenarios for withdrawal of stored water during drought situations, and the potential impact of the stored supplies on growth inducement.

Although CALSIM II does not explicitly model the water storage facilities in Kern County, it does model a demand for the area that includes the capacity to store and recharge the groundwater basin. For example, the demands for Table A and Article 21 supplies by KCWA, as used in the CALSIM II model, includes the demand for storing water with the various Kern County area

groundwater storage programs. Additionally, water banked by South Bay Aqueduct contractors is modeled as one demand, but CALSIM II does not route the water to Kern County.

## Response to Comment 30-128

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-128 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document asks if the acquisition of non-Table A (Turnback Pool, Article 21) water by SWP contractors has increased Delta exports.

As summarized in DEIR Chapter 6, Subsection 6.4.5, the water supply management practices as a whole have increased Delta exports. The increase in Delta exports is also discussed in FEIR Subsection 15.2.2. The combined results of the analyses in the DEIR portray the total water supply impacts of the water supply management practices, including the Turnback Pool, as described in DEIR Chapters 6 and 7 (Subsections 6.4.5 and 7.1.3). No separate estimates of SWP supply changes attributable to the Turnback Pool alone are available, although its influence on Delta exports is included in the analyses in DEIR Appendix K.

As stated on page 6-58 of the DEIR, if the Table A water offered through the Turnback Pool from 1996 to 2004 (922,697 AF) had not been delivered to contractors via the Turnback Pool, it might have been used by the original contractor, allocated to other contractors by the Department, stored by the Department in Oroville or San Luis Reservoirs, or might have flowed out the Delta. However, the amount of water being offered to the Turnback Pool each year continues to decrease as demand within each contractor's service area increases. See FEIR Subsection 15.2.6.

The comment also mentions the price and volumes of water moved through the Turnback Pool. The amount of money that contractors receive from selling their water through the pool does not provide them with a profit, but merely offsets some of the costs they must pay regardless of whether they take delivery of the water. Thus selling water through the Turnback Pool is not a profitable venture and there is no economic incentive for use of the pool other than to gain some revenue to offset part of the cost of water that would otherwise have been used as defined in the preceding paragraph. Two pools offer selling contractors just one-half or one-quarter of the full cost that they pay per AF of annual contractual Table A amounts for the development of such supply. The money received covers just a portion of this cost, which they pay every year regardless of whether or not they are allocated or receive such contractual Table A amount.

The comment notes a price for Article 21 water and infers that because it is cheaper than Table A water that it has increased exports. The Department notes that pre- or post-Monterey, there was and is no capital cost associated with Article 21 water in comparison with Table A water. Additionally, the Monterey Amendment did not change the availability of Article 21 water, just the priorities for receiving it and allocation of the available supply. See FEIR Subsection 14.2.4.

As noted on page 6-47 of the DEIR, "The annual average of total Table A and Article 21 deliveries would decrease by one percent compared to the baseline scenario." This decrease amounts to no noticeable effect on pumping at Banks Pumping Plant. However, it is also noted that deliveries to M&I contractors would increase by three percent (which includes Table A transfers).

Lastly, the comment notes the purchase of banked water from KCWA for environmental purposes, which was a purchase from KCWA on behalf of the EWA program, which is discussed in the FEIR Subsection 7.2.2.1.5. The source of the banked groundwater was SWP water banked in the wet years in the 1990s when allocations were 100 percent. The exact source, whether Table A, Article 21, Turnback Pool, carryover, or other SWP classification is not known, and was immaterial to the purchase for EWA purposes. See also FEIR Subsection 16.2.11.

## Response to Comment 30-132

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-132 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the water supply chapter and the descriptions of the impacts of the proposed project on water supply. In the DEIR, the subject is discussed in Chapter 6 Effects of the Proposed Project on the SWP. This comment has 12 questions, 10 of which are questions relating to the KFE. See the Response to Comment 30-132 in FEIR Chapter 16 for responses to these questions. The remaining two questions are addressed here.

Question 9 asks how the Turnback Pool, carryover, and non-project water provisions have been implemented and potential for future implementation. The water supply management practices are described in the DEIR, in Chapter 2, Subsection 2.5.2; Chapter 4, beginning with Subsection 4.4.4; and are discussed in greater detail in Chapter 6 beginning at Section 6.4. The environmental impact analysis of the water supply management practices are detailed in DEIR Subsection 7.1.3. The water supply management practices are also discussed in this FEIR chapter. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact in FEIR Subsections 15.2.2 and 7.2.2.1.3.

Question 10 asks how the Monterey Amendment has facilitated water marketing or groundwater banking, and what are the future trends. The comment implies that SWP water can be sold in a water market. Except for the Department purchase of banked SWP water from SWP contractors for EWA purposes, the only means for selling Table A water is through the Turnback Pool. Department approved transfers between SWP contractors have occurred under pre-Monterey Article 15(a) and under Monterey Amendment Article 53(a). Additionally, when SWP contractors store water outside their service area, it is for future use, and the Department tracks its delivery and return. DEIR Table 6-26 shows water delivered to groundwater programs in the

period from 1996 through 2003. FEIR Subsection 15.2.4 discusses the increases in water stored outside contractors' service area.

See Response to Comment 30-132 in FEIR Chapter 16.

### Response to Comment 30-139

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-139 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in December 2006 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of the DEIR and discusses the definition of the baseline under CEQA and questions various elements regarding the baseline in the DEIR. See Response to Comment 30-139 in FEIR Section 6.3 for a response to most of the issues raised by this comment.

The comment also states that the pre-Monterey contract precluded storage outside of service area and states that the baseline condition included in the (past) administrative draft does not reflect provisions included in the original contract. This statement is incorrect. As noted in FEIR Subsection 15.2.4, the pre-Monterey contract did not limit nor prevent a contractor's ability to store water outside the service area, nor did it limit the amount. Prior to the Monterey Amendment, storage outside of the service area was approved on a case-by-case basis.

### Response to Comment 30-141

The comment requests an explanation of why different time periods are used in different analyses. See Response to Comment 30-49. See also FEIR Subsection 15.2.2.

### Response to Comment 30-143

The comment states that subsequent EIR drafts must state how turn-back pool, carry-over water, new allocations of Article 21, and storage outside of the service area have contributed to increased winter pumping. See FEIR Subsection 15.2.2. See also Response to Comment 30-143 in FEIR Section 7.2.

### Response to Comment 35-3

The comment suggests that the transfer of the KFE led to the development of the Semitropic water storage project. This suggestion is incorrect. The Semitropic water storage project was developed by Semitropic WSD. As noted in FEIR Subsection 15.2.4, the Semitropic storage project was being developed prior to the Monterey Amendment. MWDSC was the first participant and approval to store water there was pre-Monterey. See FEIR Subsection 6.1.2.3.2 for more discussion on MWDSC's participation in the Semitropic water storage project.

The comment also notes that groundwater storage in Semitropic has allowed Castaic Lake WA to store a significant amount of water. It is true that CLWA has stored water in the Semitropic groundwater storage program. Castaic Lake WA can store up to 55,000 AF through Semitropic

and has approximately 55,000 AF currently stored under a limited-term contract. The growth-inducing impact from the water supply management practices is discussed further in FEIR Subsection 8.2.4. See also Response to Comment 35-3 in FEIR Chapters 8 and 14.

## Response to Comment 64-30

The comment states that there should be more disclosure regarding "conjunctive use" projects, especially with regard to the sources of water that are put into the ground. The comment appears to be directed to the water supply management practices, including storage outside-the-service area. These practices, facilitated by the Monterey Amendment, are the only Monterey Amendment actions which affect exports from the Delta. See FEIR Subsection 15.2.2.

## Response to Comment 65-12

The comment notes that the proposed project promotes water supply management practices that would harm the Delta. It is true that the water supply management practices tend to increase the use of Table A and Article 21 supplies. The potential to increase the beneficial use of water that could be supplied by the SWP facilities, consistent with environmental and other regulatory constraints on facility operation, especially Delta exports was one of the benefits of the Monterey Amendment. To the extent that the Monterey Amendment increases the volume of pumping during fish-sensitive periods, the potential for impacts to fish exists. This effect is documented in Impact 7.3-5 (pages 7.3-42 to 7.3-73 of the DEIR) addressing the proposed project water supply management practices and their potential to impact special-status fish species in the Delta. However, the DEIR estimates that future pumping (that may occur due to increased opportunities for storage outside a SWP contractor's service area as a result of the Monterey Amendment) is likely to be less because of new constraints on Delta exports, climate change, increased demand for current use of Table A amounts and other factors. See FEIR Subsections 15.2.1 and 15.2.2. See also Response to Comment 65-12 in FEIR Section 7.2.

## Response to Comment 66-16

The comment wished to correct a comment that selling water outside the service area was not allowed under the original contracts. The comment pointed out that while the Monterey Amendment facilitated selling water outside the service area the practice had been allowed and approved under the original contracts. See FEIR Subsections 15.2.1 and 15.2.4. See also Response to Comment 66-16 in FEIR Chapter 4.

## Response to Comment 67-4

The comment suggests that the increases due to the Monterey Amendment be compared to what would happen without the Monterey Amendment. See FEIR Subsections 15.2.2 and 15.2.3, especially 15.2.3.3. See also Response to Comment 67-4 in FEIR Section 7.2.

## Response to Comment 67-31

The comment raises questions about pumping costs if groundwater is used in connection with the flexible storage water supply management practices. See FEIR Subsection 15.2.5.2.

# 16. KERN FAN ELEMENT

# 16. KERN FAN ELEMENT

## 16.1 INTRODUCTION

The following responses address comments on the transfer of the KFE property pursuant to the Monterey Amendments. Comments covered issues such as authority to transfer the KFE, environmental and water supply impacts, land use restrictions, and marketing of water stored in the KFE property. The master response is organized by the following subtopics:

16.2.1 Summary of the Planned Development of the KFE Property Prior to Transfer
16.2.2 Transfer of the KFE Property
16.2.3 Affect of KFE Property Transfer on Contractor's SWP Water Supply
16.2.4 Clarification of the Retirement of Table A Amounts for the Transfer of the KFE
16.2.5 Adequacy of the CEQA analysis of the Transfer of the KFE Property
16.2.6 Clarification of Potential Environmental Effects resulting from a State-owned KFE
16.2.7 Clarification of Potential Environmental Effects Resulting from a Locally-owned KFE
16.2.8 KWBA as a Public Agency
16.2.9 Assurances Regarding the KFE Property
16.2.10 Land Use Restriction on 490 acres of the KWB Lands
16.2.11 KWB Lands and Water Marketing

Some of the comments received on the DEIR's discussion of the transfer of the KFE property are fully addressed by the master response; others require an additional response due to the specific nature of the comment. A response to all comments is included in Section 16.3 of this chapter immediately following the master response. Individual responses to comments which are fully addressed by the master response include reference to the appropriate subsection or subsections of the master response where the comment is addressed.

### Comments Addressed

Comments addressed in this chapter include: 6-4, 11-1, 11-2, 11-4, 11-5, 11-6, 11-8, 14-1, 14-2, 14-3, 14-4, 14-5, 14-6, 16-5, 16-21, 17-6, 17-7, 21-57, 21-58, 21-59, 21-60, 21-61, 22-22, 22-25, 23-2, 26-1, 30-8, 30-18, 30-37, 30-38, 30-39, 30-40, 30-41, 30-42, 30-43, 30-44, 30-45, 30-90, 30-109, 30-124, 30-125, 30-127, 30-129, 30-130, 30-131, 30-132, 31-1, 34-1, 34-2, 34-3, 34-4, 36-17, 42-3, 42-8, 42-11, 42-12, 62-11, 65-1, 67-2, 67-6, 67-12, 67-22, 67-23, 67-28, 67-34, 67-35, 67-36, 67-37, 67-38, and 67-39.

### Nomenclature

It was noted by the KWBA that in various instances throughout the DEIR, references to the KFE or KFE property should instead be references to the KWB Lands and vice versa. The Department agrees that the property in the DEIR should be called the "KFE property" when owned by the Department and called the "KWB Lands" after it was acquired by the KWBA. This is consistent with the Settlement Agreement which defines the KWB Lands as the KFE property after it was transferred and recorded in Kern County. The footnote in Section III of DEIR Appendix E clarifies the name used by the Department during its activities to develop a multi-element groundwater program in Kern County in the 1980's, which was the "Kern Water Bank"

(KWB), as distinguished from the term “KWB Lands” used by this FEIR. KCWA refers to the Kern County Water Agency and KWBA refers to the Kern Water Bank Authority.

## 16.2 MASTER RESPONSE

### 16.2.1 Summary of the Planned Development of the KFE Property Prior to Transfer

Comments addressed in this subsection include: 11-1, 11-4, 14-1, 14-2, 14-4, 14-5, 16-5, 16-21, 30-38, 30-39, 30-40, 30-41, 30-43 ,30-109, 34-1, 67-22, 67-23, and 67-37.

Beginning in 1977, the Department began a reconnaissance study of water banking potential in Kern County as a feature of the SWP, called by the Department at that time the KWB. Late in 1985, the CWC Section 11258 directed the Department to establish facilities south of the Delta for utilizing groundwater storage space. The legislation reflected an expectation that such facilities would involve cooperation with local interests and required the Department to enter into an operating agreement with any SWP contractor within the boundaries of such groundwater program before proceeding with such storage.

In December 1986, the Department issued a Program EIR, entitled *Artificial Recharge, Storage and Overdraft Correction Program, Kern County, California*, where the proposed action described a conceptual “element” of the proposed KWB, called the KFE. As envisioned, the KWB would consist of a series of “elements,” which would be geographically separate projects that would be operationally integrated. The first element, the KFE, was to include the acquisition of up to 46,000 acres of land for the purpose of recharging, extracting, and storing SWP water in the Kern River Fan area. The Program EIR focused on the impacts of the land acquisition.

On March 25, 1987, the Department and KCWA signed an MOU for the development and operation of the KWB. The MOU constituted agreement under Section 11258 of the CWC for the Department to proceed with the purchase of land for the project. In April 1987, the Department released *Kern River Fan Element, Kern Water Bank, Preliminary Technical Report*, which discussed a 1 million AF KFE storage project and a proposal for developing land to be purchased later from Tenneco West, Inc. In September 1987, Assembly Concurrent Resolution No. 80 directed the Department to proceed with implementation of a program for the proposed KWB, including acquiring appropriate lands and negotiating a contract with the KCWA concerning the operation of the program. In August 1988, the purchase of 19,900 acres of Tenneco property was completed, with another 100 acres purchased in March 1990.

To promote an early benefit to the SWP during the development of the KFE, the Department in Spring 1989 developed a plan for a scaled-down version of the KFE, and in December 1990 released *Kern Water Bank - First Stage Kern Fan Element, Draft Supplemental Environmental Impact Report*. Also during that year, negotiations for the Section 11258 operations agreement with KCWA were initiated, as well as on-site wildlife and vegetation studies, and establishment of a local land use advisory committee to help develop land uses compatible with water banking. An accompanying *Kern Water Bank - First Stage Kern Fan Element Feasibility Report* evaluated the scaled-down project, as well as groundwater impacts, institutional requirements, and economic and financial analysis. The report concluded that the proposed 350,000 AF KFE project was technically, economically, financially, environmentally, and institutionally feasible.

In a series of Biological Opinions issued from 1993 through mid-1994 relating to SWP/CVP operations, the NMFS and USFWS specified conditions to protect the winter run Chinook

salmon and the delta smelt. The two fish species were listed under state and federal endangered species acts. As a result of the listing and subsequent restrictions on diversions from the Delta to downstream facilities, design activities were discontinued by the Department in early 1993. The program emphasis was redirected towards completing the HCP for the KFE, maintaining the KFE property and existing extraction facilities, monitoring groundwater levels and water quality, coordinating with local planning efforts, and reevaluating the KFE in consideration of water supply uncertainties. The HCP was required as part of the permit application for take of species during construction, operation, and maintenance of the proposed project.

From February 1992 through March 1994, the Department met with KCWA to negotiate the Section 11258 agreement needed to operate a groundwater facility in Kern County. Differences over local uses of a KFE storage project and cost sharing were not resolved during that time period. In response to changes in the negotiating climate and the new restrictions on diversions from the Delta, the Department suspended negotiation efforts. The transfer of the KFE property to KCWA was subsequently included in the Monterey negotiations.

In exchange for the transfer of the property to KCWA, the two agricultural SWP contractors acquiring the KFE property collectively retired a total of 45,000 AF of agricultural Table A amounts (KCWA and Dudley Ridge WD). The *Agreement for the Exchange of the Kern Fan Element of the Kern Water Bank by and between the Department of Water Resources of the State of California and Kern County Water Agency* was executed on December 13, 1995. It included provisions for the transfer of the KFE property, the retirement of the 45,000 AF, the Department's balance of stored water in the groundwater basins in Kern County (groundwater pilot programs), and a provision allowing the immediate reassignment of the property to a joint powers authority.

After the transfer, the KWBA prepared an addendum to the previously certified 1995 Monterey Agreement EIR. In the 1995 Monterey Agreement EIR, three alternatives for the development of the KWB Lands (in addition to the No Project Alternative) were identified and evaluated (see table below). The KWBA concluded in its *Initial Study and Addendum to Monterey EIR of the Kern Water Bank Authority, Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan*, dated June 3, 1997 that the land uses of the project were within the land use components of the three scenarios evaluated in the 1995 Monterey Agreement EIR.

| | **Scenario A** | **Scenario B** | **Scenario C** | **Project** |
|---|---|---|---|---|
| Recharge Facilities | 3,258 | 5,258 | 7,758 | 5,900 |
| Irrigated Farmland | 0 | 0 | 0 | 3,170 |
| Native/Disturbed Vegetation | 2,000 | 4,500 | 7,100 | 10,349* |
| Previously irrigated agricultural land/undesignated use | 14,798 | 10,298 | 5,198 | 0 |
| Other | 490 | 490 | 490 | 481 |

Note:
* Includes 5,592 acres of Compatible Habitat (acreage preserved and managed), 960 acres of Sensitive Habitat (protected acreage), 530 acres of DWR Mitigation Land, and 3,267 acres of Conservation Bank lands (of which 490 acres were designated for commercial purposes).

The proposed project would have less impacts and more environmental benefits than Scenario C, and more environmental benefits than Scenario B. The KWBA concluded in the IS/Addendum that the proposed project was consistent with a KFE storage project described in the 1995 Monterey Agreement EIR. The KWBA, the USFWS, and CDFG, also continued negotiations on an HCP/NCCP to protect endangered species on the project. The provisions of this agreement, which was also the subject of the IS/Addendum, are discussed in some detail in the DEIR Appendix E (pages 9-13). The KWBA prepared *Findings and Mitigation Measures, Implementation of the Kern Water Bank - Kern Water Bank Habitat Conservation Plan/Natural*

*Community Conservation Plan* and filed a Notice of Determination with the State Clearinghouse on June 5, 1997 (SCH #1997107342). A Final Environmental Assessment for the issuance of an incidental take permit under Section 10(a)(1)(B) of the Endangered Species Act for the KWB Lands was prepared by the USFWS and dated October 2, 1997. The Addendum was not challenged following the notice and the statutory time for challenging it has passed. The Settlement Agreement provided that the Parties to the Agreement recognized that the Addendum had been completed and agreed not to challenge it in any manner. The KWBA also agreed that it would not rely on the Addendum for any new KWBA project to the extent that such reliance is based on data or analysis incorporated into the Addendum from the 1995 EIR.

The development of the KWB Lands by the KWBA is discussed in Section V.C. in Appendix E of the DEIR. In 1995, under the KCWA flood emergency program and prior to the formation of the KWBA, KCWA and the other future participants of the KWBA constructed 3,034 acres of shallow recharge ponds (Section III.B). From 1998 through 2003 an additional 4,080 acres of recharge ponds were constructed, for a total of 7,114 acres. Pursuant to the December 14, 2004 report entitled *Kern Water Bank Infrastructure Development, the Kern Fan Monitoring Committee, and Groundwater Conditions*, several acquisitions of property adding to the KWB Lands were allowed pursuant to the KWBA HCP/NCCP under the category of minor amendment since the new acreage would only increase the original 19,900 acres covered by the HCP/NCCP by about 2.5 percent. It is expected that the KWBA will construct an additional 1,200 acres of percolation ponds within the intermittent wetland habitat in the future.

## 16.2.2 Transfer of the KFE Property

Comments addressed in this subsection include: 11-4, 14-2, 16-21, 17-6, 21-58, 21-61, 22-25, 26-1, 30-8, 30-18, 30-37, 30-38, 30-39, 30-40, 30-41, 30-42, 30-44, 30-109, 30-124, 30-132, 31-1, 34-1, 36-17, 64-12, 67-6, 67-22, 67-28, and 67-37.

### 16.2.2.1 Department Re-evaluation of the KFE Property

Some comments asked why the Department decided to transfer the KFE property and whether the Department had the authority to transfer the property. As stated in Appendix E of the DEIR (page 1) the Department encountered many legal, institutional, and political impediments to implementation of a groundwater storage facility on the KFE property. In 1993, uncertainties regarding the proposed groundwater facility ultimately convinced the Department to halt feasibility and design work on the project. These uncertainties included proposed revisions of Delta water quality standards and measures to protect threatened and endangered species, which would affect the SWP's ability to pump water from the Delta for recharge on the KFE property. Expected changes in arsenic standards for drinking water also raised questions regarding the ability of the project to meet water quality standards for pump-in to the California Aqueduct. In addition to environmental and water quality issues, the Department and KCWA could not reach agreement on measures to comply with CWC Section 11258, which required approval of local agencies for development of State groundwater banks in their area. These difficulties led the Department to question proceeding with the development of a KFE groundwater storage facility. See also the Department's Bulletin 132-94.

Once the transfer of the KFE property occurred, the KWBA assumed the responsibilities of the property and the development of the KWB Lands. Such responsibilities included finalizing an HCP/NCCP plan that had been proposed by the Department.

No SWP water was banked/stored on the KFE property prior to its transfer. Several comments have confused an earlier Department-proposed KFE groundwater storage program, and have

stated that the Department gave away 1 million AF of SWP water. As noted in the preceding subsection, the Department-proposed 1990 KFE groundwater storage program was to have a 350,000 AF storage capacity. However, in the 1980's the Department did consider a 1 million AF KFE storage program. This storage capacity does not imply that 1 million AF of water existed in the groundwater basin. In 1995, KCWA requested and was granted the use of the KFE property for emergency spreading of water to mitigate projected flooding of agricultural lands due to high flows on the Kern and Kaweah rivers (DEIR Appendix E, Section III.B), but this was the only water recharged on the property prior to its transfer, and this was non-SWP water.

### 16.2.2.2 Court Decision on the Transfer of the KFE Property

On February 13, 1996, PCL amended the December 2, 1995 lawsuit in *PCL v. DWR* against the Department challenging the Department's implementation of the Monterey Amendment, and alleged that the Department could not legally transfer the KFE property to KCWA as part of the Monterey Amendment. PCL sought an injunction to stop the transfer (Bulletin 132-97, pg 86).

After a hearing held May 17, 1996 a Sacramento County superior court judge ruled in favor of the Department and KCWA on all causes of action, and dismissed the lawsuit. In regard to the KFE property, the court ruled that PCL had failed to join indispensable parties in the lawsuit, including the MWDSC and KCWA, in its cause of action to enjoin the transfer of the KFE property. On August 15, 1996 judgment was entered in favor of the Department and KCWA. As a result of the trial court's ruling, the Department proceeded to implement the Monterey Amendment, including transferring the KFE property to KCWA.

PCL appealed the decision to the Third District Court of Appeal. On September 15, 2000 the Court of Appeal held that the EIR was inadequate. The Court directed the Department to prepare a new EIR and remanded the matter to the trial court to vacate the Department's certification of the EIR and make such other orders as appropriate. In addition, the Court of Appeal reversed the Superior Court's entry of summary judgment and reinstated the validation claim in the complaint. On December 13, 2000, the California Supreme Court denied review. The parties commenced mediation on March 26, 2002 and proceedings in Superior Court were stayed pending completion of mediation. On July 18, 2002 the parties reached agreement on principles for settling the lawsuit. The Department commenced preparing a new EIR and the interested parties continued mediation to convert the settlement principles into a legal agreement.

The May 2003 Settlement Agreement set forth a process for including the plaintiffs and the contractors in the development of the new EIR and set forth some specific items that were to be included in the content of the EIR. The Settlement Agreement is included in Appendix D of the DEIR. The Superior Court approved the Settlement Agreement on May 20, 2003. As part of the Project Description, the Settlement Agreement provides that the parties acknowledge: 1) that the KWB Lands is currently operating under the Kern Environmental Permits, which were entered into based on an Addendum to the 1995 Monterey Agreement EIR; 2) the parties agree not to challenge the Addendum; and 3) that the KWBA agrees not to rely on the Addendum for any new KWBA project to the extent that such reliance is based on data or analysis incorporated into the Addendum. In addition, the new EIR must include an independent study by the Department, as the lead agency, and the exercise of its judgment regarding the impacts related to the transfer, development, and operation of the KWB Lands in light of the Kern Environmental Permits. The Settlement Agreement also states that KWBA shall retain title to the KWB Lands and that KWBA may continue to operate and administer the KWB Lands

including the water bank subject to the certain restrictions (see FEIR Subsections 16.2.9 and 16.2.10).

The Settlement Agreement also provided in regard to the KFE property, that the plaintiffs would file a request for dismissal without prejudice of the validation claim upon execution of the Settlement Agreement by all the parties and execution of the Attachment A Amendments and issuance by the Department of contractor memos on Attachment C Guidelines and Attachment D principles. The Settlement Agreement provided that as long as the conditions were timely met, the plaintiffs would agree not to refile the validation cause of action or any new cause of action or claim challenging the validity of any Monterey Amendment or KFE property transaction. See Settlement Agreement Section VII.E. The Department complied with the conditions and the plaintiffs filed a request for dismissal.

### 16.2.2.3 California Water Code Section 11464

Several comments stated that the Department does not have the authority to transfer the KFE property and that the transfer of the KFE property violated CWC Section 11464. Although validity of the transfer of the KFE property is not an environmental issue that must be analyzed in this EIR, some background and clarifying information is provided below, CWC Section 11464 states:

> No water right, reservoir, conduit, or facility for the generation, production, transmission, or distribution of electric power, acquired by the department shall ever be sold, granted, or conveyed by the department so that the department thereby is divested of the title to and ownership of it.

The Section does not bar the Department from conveying land. At the time of the transfer of the KFE property, there had been no development of the property by the Department, no construction of recharge ponds, extraction wells, conveyance canals, and no imported SWP water had been stored on the property. In the late 1980s and early 1990s, water that the Department acquired/stored in KCWA's service area in the establishment of groundwater storage accounts for the SWP used existing KCWA facilities, not the KFE property. The Department believes that the KFE property was not a reservoir within the meaning of Section 11464 and that it had the authority to transfer the KFE property.

## 16.2.3 Effect of KFE Property Transfer on Contractor's SWP Water Supply

Comments addressed in this subsection include: 11-4, 21-61, 22-25, 26-1, 30-37, 30-38, 30-43, 34-1, and 36-17.

Several comments indicated that the transfer of the KFE property would make SWP water supplies less reliable. As noted in Section 11.6 on pages 11-30 and 11-31 of the DEIR, the effects of a State-owned water bank on the KFE property were examined by comparing NPA1 to the baseline scenario. The only difference between the two scenarios is that under NPA1, the Department would develop a water bank on the KFE property. Assumptions made were based on information contained in the 1990 KFE Feasibility Report, with a storage capacity of 350,000 AF in 2003 and a capacity of 500,000 AF in 2020. Initial storage of SWP water in the bank in 1995 was assumed to be 83,000 AF and that the maximum recharge rates would be 10,500 AF per month in 2003 and 15,000 AF per month in 2020. Maximum extraction rates were assumed to be 6,200 AF per month in 2003 and 8,900 AF per month in 2020 (146 cfs). Because extraction of water from the water bank would be expensive, it was assumed that the Department would only do so in years when the total Table A allocation was less than

60 percent. The initial storage equaled the water supply remaining from the Department's purchase of stored high-flow Kern River water from La Hacienda, Inc., which was to be extracted from the KFE property. Extraction of water from the water bank was assumed to occur only in years when the total Table A allocation was less than 60 percent due to the expensive cost to extract water.

As stated in the DEIR on page 11-31, a State-owned bank under 2003 conditions would reduce deliveries to contractors in wet years by about 0.5 percent because water that would otherwise be delivered to contractors as Article 21 water would instead be placed in storage in the water bank and would increase deliveries to each contractor in critically dry years by about 2.5 percent (37,200 AF) because the Department would be able to withdraw water from the bank to supplement deliveries of Table A water to all SWP contractors. Under 2020 conditions the existence of a State-owned KFE water bank would reduce deliveries to contractors in wet years by about 0.6 percent and would increase deliveries to each contractor in critically dry years by about 4 percent (53,200 AF). The existence of a State-owned KFE water bank would have no effect on total deliveries to contractors averaged over the 73-year period of hydrologic record.

### 16.2.4 Clarification of the Retirement of Table A Amounts for the Transfer of the KFE

Comments addressed in this subsection include: 11-2, 16-5, 26-1, 30-37, 30-38, 30-39, 30-42, 30-109, 31-1, 34-1, 36-17, 64-12, 67-2, 67-28, 67-34, 67-35, 67-37, and 67-38.

Several comments wanted to reiterate, while others were unaware, that the transfer of the KFE property to KCWA included the retirement of 45,000 AF of Table A amounts collectively by two SWP contractors.

The transfer of the KFE property to KCWA was included in the Monterey negotiations and principles. In exchange for the transfer of the property to KCWA, KCWA, and DRWD permanently retired a total of 45,000 AF of agricultural Table A amounts. Member units of KCWA who retired Table A amounts and who are listed as participants in the KWB Lands program are Improvement District Number 4, Tejon-Castac Water District, Semitropic Water Storage District, and Wheeler Ridge-Maricopa Water Storage District. Additionally, a landowner that owned land within two KCWA member agencies retired 15,335 AF of its Table A amount from Belridge Water Storage District and 6,290 AF of its Table A amount from Lost Hills Water District (see DEIR Appendix E, Table 3).

The “Agreement for the Exchange of the Kern Fan Element of the Kern Water Bank” between the Department and KCWA was executed on December 13, 1995 and provided for the transfer, as well as assumptions of responsibility for the Department's endangered species agreements. It states:

> Article 52 of the Monterey Amendments provides that the Department of Water Resources shall convey to agricultural contractors, which includes the Kern County Water Agency, the Property which constitutes the Kern Fan Element of the Kern Water Bank. Agency will procure and deliver 45,000 acre feet of annual agricultural entitlements to the State. The exchange of those water entitlements and other provisions of the Monterey Amendments shall be the consideration for the transfer of the Property.

Additionally, since it was the intent of KCWA to transfer the KWB Lands to a joint powers authority made up of those entities that had retired a portion of the 45,000 AF Table A amounts,

the agreement included a provision to assign KCWA's rights and obligations to the joint powers authority.

It has been suggested that the 45,000 AF of Table A transferred is “paper water” and did not result in a benefit to the SWP because it was not available in all years. The 45,000 AF of Table A amount that was retired belonged to agricultural contractors that were requesting full Table A amounts when available prior to the 45,000 AF retirement. As Chapter 9 of the DEIR mentions, the ability of the SWP to deliver water is based on several factors—the availability of the water from the source, the availability of conveyance, and the level and pattern of water demand in the delivery service area. Prior to its retirement, the delivery of the 45,000 AF Table A amount was dependent on the above criteria, no different than any other Table A amount. Although the 2007 State Water Project Delivery Reliability Report cites that under 2005 conditions average Table A delivery from the Delta is 2.818 million AF, allocations of Table A water during 2005 and 2006 (above normal and wet years) were 90 percent and 100 percent respectively, although Table A deliveries were just under 2.8 million AF in each of those years, and total deliveries were about 3.6 million AF in each of those year. Although it is true that the full 45,000 AF Table A amount can only be delivered some of the time, it can be delivered when it is available. Like all other Table A amounts, only a proportionate share is delivered each year depending upon hydrology and environmental constraints. See FEIR Chapter 9 for more discussion on reliability of SWP water supplies.

### 16.2.5 Adequacy of the CEQA analysis of the Transfer of the KFE Property

Comments addressed in this subsection include: 14-2, 14-3, 14-4, 14-5, 21-57, 21-60, 21-61, 22-25, 23-2, 26-1, 30-37, 30-38, 30-39, 30-40, 30-43, 30-44, 30-109, 30-129, 34-1, 36-17, 42-12, and 65-1.

A number of comments argued that the transfer of the KFE property altered a fundamental purpose of a State-owned water bank by shifting control of the water bank from public to quasi-private, or local control or that the Department did not analyze the full impact of the transfer. Some comments raised questions about whether the land should have been transferred at all since a State-owned KFE could have supplemented SWP deliveries. Other comments suggested that the KFE should have been used for statewide environmental benefits.

The DEIR provides two analyses of the KFE property transfer – one pursuant to CEQA and one pursuant to the Settlement Agreement. Under the CEQA analysis, the DEIR examined the impacts of local development of the KWB Lands (see FEIR Subsections 16.2.6 and 16.2.7). The DEIR also examined the impacts of developing and operating the same property for SWP use as part of several of the no project alternatives (i.e. the KFE property). The transfer did not alter a fundamental purpose of the KFE property when owned by the Department. See FEIR Subsection 5.2.1.2. The same land is involved for similar purposes – to store surplus water during years of abundant supply for extraction and use in dry years by developing a water recharge and recovery facility, which would provide intermittent wetlands. To the extent that the property is used to store local supply, it can be used to supplement KCWA’s SWP supplies in times of shortage. To the extent that it could have been used for SWP supply, it could have provided more SWP water to all SWP contractors in times of shortage. The difference in the delivery impact of the water bank used for local purposes, or used for SWP purposes can be seen by comparing the impacts of the proposed project with NPA1. The only difference between these two projects is whether the KFE property is operated to improve reliability of local supplies or reliability of SWP supplies. As discussed at DEIR page 11-31 and FEIR Subsection 16.2.3, the existence of a bank would have no effect on total deliveries to contractors averaged over the 73-year period of hydrologic record.

As a locally-owned bank, KCWA would request SWP water and bank a portion of such amount in the KWB Lands, typically in wetter years. However, as noted in DEIR Appendix E, Section VII, KCWA could have delivered all SWP water stored in the KWB Lands from 1995 through 2004, absent the KWB Lands, in other Kern groundwater storage projects. This conclusion, while based on information received from the KCWA, was independently reviewed and confirmed by the Department. Additionally, in the case of allocating Article 21 water in wet years, KCWA would only receive 25 percent of the total Article 21 supply with a locally-owned bank; whereas in the case of a State-owned water bank, the Department would deliver available water for storage in the bank, before offering it to the SWP contractors. Therefore, there could be more water exported and therefore greater potential impacts on the Delta from a state-owned KFE water bank in comparison to a locally-owned KWB Lands. The terrestrial impacts would be of a similar magnitude for either a locally-owned or State-owned project.

Some comments suggest that the purpose of the KFE property should have been to serve as a drought mitigation bank or to help balance the State's water supply to cities, farms, and fish, or to manage water resources for a variety of public purposes, including drought storage for emergency preparedness, urban uses, environmental protection, river restoration, and water quality. The Department does not agree. At the time of the Monterey Amendment, the Department owned the KFE property. It had purchased the property with the idea of storing surplus water during years of abundant supply for extraction and use in dry years by developing a water recharge and recovery facility. It had considered a number of options for the lands including the option of transferring the lands to local control. It had not considered using the lands for other purposes such as environmental protection or drought storage for emergency preparedness. At the time of the transfer there was no operation of the lands as a water bank except for a pilot project and there were serious questions about the economic feasibility of operating the KWB as an SWP facility and about whether the Department and KCWA could agree on an operating agreement as required by CWC Section 11258. While the Department could have chosen a broader project and objective such as a variety of uses of a State-owned KFE, it did not and it was under no obligation to do so. See FEIR Subsection 5.2.3.1 regarding the fact that the EIR does not need to consider broader objectives. See FEIR Subsections 16.2.1 and 16.2.5 on the history and purposes of the KWB Lands.

As owner of the KFE property, the Department had the initial responsibility to decide what it wanted to do with the land. The lead agency has the authority and responsibility to initially frame the scope of its proposed purpose and objectives. Although CEQA requires an agency to consider mitigation measures and alternatives that would meet most of its project objectives, the law does not require an agency to examine a project and objectives that are completely different from the one it has chosen to pursue nor is it obligated to look a broader issues and concerns. The court in *PCL v. DWR* recognized that the Department might approach the environmental review of the project in a different or more comprehensive manner because of its statewide perspective and knowledge. After independently considering and reviewing the original Monterey Agreement objectives, the Department limited the proposed project to the objectives listed on pages 4-1 and 4-2 of the DEIR. The proposed project and objectives of the Monterey Amendment have stayed basically the same as those of the Monterey Agreement – changes to the contract that arose primarily out of concerns among the urban and agricultural contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. The changes, while significant for the contractors and the Department, do not "fundamentally change" the SWP's "essential mission nor it's statewide environmentally accountability." See FEIR Subsections 5.2.1.2 and 5.2.3.1.

The DEIR analyzed the impacts of the transfer of land in the relevant sections of Chapter 7. It concluded that although there could be significant adverse impacts from development and

operation of the KWB Lands on terrestrial and cultural resources, they would be mitigated under the existing mitigation agreements. See DEIR page ES-5 and Table ES-1 for summary of impacts and mitigation. The DEIR also looked at the effects of use of a state-owned KFE storage facility to improve the reliability of SWP deliveries in dry periods instead of for local use. These are analyzed and discussed in DEIR Chapter 11 as NPA1, CNPA3, and CNPA4. See also FEIR Subsections 16.2.6 and 16.2.7 for clarification of the environmental effects of the use of the property for SWP or local use.

As discussed on page 4-12 of the DEIR, the Settlement Agreement required the Department to include, in addition to the CEQA analysis, an independent study of the impacts of the transfer, development, and operation of the KWB Lands "in light of the Kern environmental permits that have been issued" (federal ESA permits issued for the KWB). This study is included in Appendix E. The analysis concluded that the "KWB is operating as intended and within the confines of the HCP/NCCP." See Appendix E, page 63. The development of the KWB Lands by the KWBA is discussed in Section V.C. in Appendix E of the DEIR.

Once the land was transferred, the KWBA, the owner of the KWB Lands, had an obligation to comply with CEQA for any changes in use of the property. The DEIR discussed the environmental documentation that has been completed to date for the transfer of the State-owned KFE property and after, as the locally-owned KWB Lands project, in Appendix E. The Department is not aware of any plans at this time to prepare any further environmental documentation concerning the locally-owned KWB Lands project. The Department will review, as appropriate, any additional environmental documentation prepared by KWBA or other agencies. To the extent appropriate, later environmental documents may use information in this EIR to provide CEQA-required information. This EIR is not intended to cover additional environmental review, if necessary, including specific operating parameters of the locally-owned KWB nor does it present a detailed analysis of how the water in the bank is stored or allocated. See FEIR Subsection 4.2.2.3.2.

See FEIR Subsection 4.2.1.3 on the scope of the EIR, Subsection 4.2.2.3.2 on environmental documentation of the KFE property transfer and on local decisions regarding the KWB Lands, and Subsection of 5.2.2.4.4 on the scope of the proposed project.

## 16.2.6 Clarification of Potential Environmental Effects Resulting from a State-owned KFE

Comments addressed in this subsection include: 11-4, 11-5, 14-3, 17-7, 21-59, 21-61, 22-22, 22-25, 23-2, 30-37, 30-38, 30-39, 30-40, 30-43, 30-125, 34-1, and 36-17.

Several comments indicated that there would be impacts to the Delta whether it was from a State-owned KFE or a locally controlled KWB Lands. It is true that the purpose of a State-owned KFE or locally-owned KWB Lands is similar, and that is to store surplus water during years of abundant supply for extraction and use in dry years. In this section the Department clarifies the Delta and terrestrial impacts of a State-owned KFE as analyzed in 1990.

### 16.2.6.1 Delta Impacts

As mentioned in FEIR Subsection 16.2.2.1, a program EIR was completed in 1986 on a 46,000-acre KFE which was to be part of a larger Department-proposed KWB, and a Supplemental EIR (SEIR) completed in 1990 on a scaled-down 20,000-acre KFE storage project.

The Department recognized in the 1990 SEIR the potential to impact winter-run salmon and other races of salmon by additional Delta diversions required for the operation of the KFE. The potential impact would occur during their passage through the Delta as downstream out-migrants from January through March. The Department in the 1990 SEIR concluded that the diversions to a State-owned KFE would result in a 1.5 percent increase to the total diversions from the Delta, and that by itself, would not be significant.

In the Monterey Plus EIR, the Department analyzed the impacts of a state-owned KFE in NPA1. As stated in the DEIR on page 11-31 and in FEIR Subsection 16.2.3, a State-owned bank under 2003 conditions would reduce deliveries to contractors in wet years by about 0.5 percent because water that would otherwise be delivered to contractors as Article 21 water would instead be placed in storage in the water bank and would increase deliveries to each contractor in critically dry years by about 2.5 percent (37,200 AF) because the Department would be able to withdraw water from the bank to supplement deliveries of Table A water to all SWP contractors. Under 2020 conditions the existence of a State-owned KFE water bank would reduce deliveries to contractors in wet years by about 0.6 percent and would increase deliveries to each contractor in critically dry years by about 4 percent (53,200 AF). The existence of a State-owned KFE water bank would have no effect on total deliveries to contractors averaged over the 73-year period of hydrologic record. See FEIR Subsection 16.2.3.

Even though this pumping would have been in compliance with then-current and future more stringent regulatory requirements, the FEIR reflects a potentially significant impact to Delta fisheries in DEIR Table 11-23. The Department would have provided appropriate mitigation for any incidental take of winter-run salmon. Regardless, the Department could only move water to a State-owned KFE storage project as allowed under its permits, that is, the requirements of the D-1641 and other regulatory constraints.

### 16.2.6.2 Terrestrial Biological Resources

The following information amplifies and clarifies the information in the 1990 SEIR. When the Department purchased the 20,000 acres in 1988 for development of a KFE storage project, most of the property had already been farmed. Approximately 17,068 acres of the property was under extensive cultivation. The remaining property contained 1,515 acres of isolated sensitive native plant communities (valley saltbrush scrub, Great Valley mesquite scrub and valley sacaton grassland) and 1,317 acres of non-native grassland, which had been leased for oil recovery facilities. No wetland habitat was present in the project area, except for the canals used to convey agricultural water (Section III.C., DEIR Appendix E). CDFG, under contract to the Department, conducted an inventory of the reptiles and amphibians, birds, and mammals inhabiting and/or foraging on the KFE property in the Summer/Fall 1990. The primary species of concern were the federal and State endangered blunt-nosed leopard lizard and Tipton's kangaroo rat, and the federally listed endangered, State listed threatened San Joaquin kit fox. Plans to minimize impacts to such species included surveys by a qualified biologist prior to construction activities, buffered areas around potential and existing dens, and speed limits posted during the breading season to restrict vehicle traffic.

The informal consultation with USFWS in January 1991 confirmed the need for an incidental take permit under Section 10(a) of the FESA before the First Stage of the KFE could be constructed and operated. One of the requirements for obtaining a Section 10(a) permit from USFWS for unavoidable take of threatened or endangered species was the preparation of an HCP. A KFE HCP Steering committee was formed and a consultant selected to prepare the HCP. In August 1992, a first draft of the HCP was distributed for review.

A major issue that developed during the course of the preparation of the HCP was the assessment of the potential impacts to listed species that would occur as a result of changing the pattern of water diversion from the Delta to supply the KFE. After consultation with the Interior Department's Solicitor, USFWS agreed in June 1993 to allow completion of the HCP, but only for local uses at the time. In their decision, the USFWS required that the HCP be amended before the existing SWP operation could be changed to supply water to the KFE. However, they agreed to allow the HCP to proceed for the local uses of the KFE, which included ARCO's activities, the easement holder's activities, the City of Bakersfield's activities, Buena Vista WSD and West Kern WD activities, CDFG activities, proposed recreational activities, and the recharge of local water as proposed in KCWA's program

After the Department acquired the property, farming by tenants continued for several years. One of the tenants' leases was terminated in 1989. Then in 1991, at the peak of the drought, all the remaining tenants leases were terminated, and thereafter, the lands were fallowed (see Figure 4, DEIR Appendix E). In 1995, four special-status plants and eleven special-status animals were known to occur on the KFE property (see Table 7.4-2 on page 7.4-5 of the DEIR).

In the Monterey Plus EIR, the Department analyzed the impacts of a state-owned KFE in the NPA1. As noted on DEIR page 11-32, construction of a State-owned bank would have similar impacts to those that occurred when the KWBA constructed its groundwater banking facilities on the property. As discussed in FEIR Subsection 16.2.10 the 490-acre restriction of the Settlement Agreement would not be in effect in the no project alternatives and therefore the terrestrial impacts could be slightly greater.

### 16.2.7 Clarification of Potential Environmental Effects Resulting from a Locally-owned KFE

Comments addressed in this subsection include: 14-1, 14-3, 17-7, 21-59, 21-60, 21-61, 22-22, 22-25, 23-2, 30-37, 30-38, 30-39, 30-43, 30-124, 30-129, 34-1, 36-17, 42-12, and 67-39.

Some comments stated that the DEIR failed to analyze or discuss the environmental consequences of transferring the KFE property to local interests. In this section the Department clarifies several impacts of a locally-owned KWB Lands.

#### 16.2.7.1 Delta Impacts

As noted in DEIR Section 5.5, the KWB Lands were developed as a locally-owned facility on land transferred from the Department as part of the Monterey Amendment. As noted in DEIR Section 6.4.1, the KWB Lands could represent new south of delta storage for KCWA that would not be available under the baseline scenario and thus could potentially increase deliveries and Delta diversions.

In trying to determine what deliveries KCWA could have taken absent the KWB Lands, the Department asked KCWA to review the deliveries of SWP water to the KWB Lands and determine how much of that water it could have stored in other storage programs to which KCWA had access that were existing at the time of delivery. The other existing storage programs KCWA considered were limited to projects in the Kern Fan area, including: the Berrenda Mesa Project; City of Bakersfield 2800 acres; and the Pioneer Project, including the Kern River Channel. KCWA conducted a detailed monthly analysis of these storage programs, looking at the historical deliveries that were made to those programs, estimating the remaining recharge capacity that would have been available for additional deliveries, and comparing the SWP deliveries to the KWB Lands to this remaining available recharge capacity. The results of

KCWA's analysis show that from 1995 through 2004 all SWP water deliveries to the KWB Lands by KWBA participants located within Kern County could have been recharged in available capacity in these other Kern Fan projects (see Section VII of DEIR Appendix E). This conclusion, while based on information received from the KCWA, was independently reviewed at the time the DEIR was prepared and the DEIR concluded that all SWP water delivered to the KWB Lands by KWB participants located within Kern County could have been delivered to KCWA if the Monterey Amendment's transfer of the KFE property had not happened (DEIR Appendix K, page 13). This conclusion was again independently reviewed and confirmed by the Department during the development of the FEIR.

Dudley Ridge WD is the only other KWB Lands participant not located in Kern County. Dudley Ridge WD deliveries therefore to the KWB Lands were included in deliveries to storage outside of contractors' service areas (DEIR Appendix K, Tables 1 and 3, column 6) which were analyzed as part of the water supply management practices. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. See further discussion of this impact in FEIR Subsection 15.2.2.

### 16.2.7.2 Terrestrial Biological Resources, 1996 to 2003

The KWBA prepared an addendum to the Monterey Agreement EIR which addresses the environmental issues related to the development and construction of a KWB Lands that had been addressed in the programmatic EIR. The primary focus of the addendum was the "Kern Water Bank Habitat Conservation Plan" and the NCCP, which primarily addressed the impacts of the project on endangered species. As noted in DEIR Section 7.4.2.5, the USFWS and CDFG approved the HCP/NCCP in October 1997. The federal and State HCP and NCCP programs seek to make the permit application process more efficient, while still complying with current federal, state and county laws that protect threatened or endangered species.

As noted on DEIR page 7.4-26, "Because the KFE property is under a HCP/NCCP, the KWBA is required to follow specific guidelines to prevent take of special-status species and to enhance and preserve the natural habitat currently present." Under the conditions of the KWB HCP/NCCP, the KWBA is required to prepare annual reports summarizing activities within the KFE property including updates on the water supply management and related activities; any amendments to the HCP/NCCP; a summary of any take occurrences; land and habitat management and mitigation measures; monitoring programs and studies; mitigation measures and cooperation with wildlife agencies; and the status of conservation credits.

The KWB HCP/NCCP planning area comprises the entire 19,900-acre KFE property. A breakdown of permitted land uses is shown in DEIR Table 7.4-4 on page 7.4-20. The KWB HCP/NCCP allows for the incidental take of up to 161 individuals of rare, threatened, or endangered species with documented occurrences or potential habitat in the project area that may be affected by the proposed project, or species that do not currently occur and for which habitat does not currently exist in the project area, but for which habitat may be created in the future.

During the 1996-2003 period of analysis, the DEIR concluded that KWBA's implementation of the mitigation measures reduced the potential impacts on terrestrial biological resources to a "less than significant" level. The DEIR describes the same impacts as potentially significant but concludes that the same mitigation measures required in the KWB HCP/NCCP will be

implemented in the future and therefore the impacts to terrestrial and cultural and paleontological resources will be less than significant (see DEIR pages ES-17 through ES-26).

The KWBA is required to prepare and submit annual reports to the USFWS and CDFG. The report includes but is not limited to a summary of mitigation measures implemented, results from the implementation of monitoring programs, avoidance, and minimization measures. The HCP/NCCP also requires the KWBA to monitor major construction activities by a qualified biologist.

As discussed on page 4-12 of the DEIR and above in 16.2.5,, the Settlement Agreement required the Department to include, in addition to the CEQA analysis, an independent study of the impacts of the transfer, development, and operation of the KWB Lands "in light of the Kern environmental permits that have been issued" (federal ESA permits issued for the KWB). This study is included in Appendix E of the DEIR. The analysis concluded that the "KWB is operating as intended and within the confines of the HCP/NCCP." See Appendix E, page 63. The development of the KWB Lands by the KWBA is discussed in Section V.C. in Appendix E.

### 16.2.7.3 Terrestrial Biological Resources, Cumulative Impacts

Cumulative impacts of the KWB Lands are discussed in Section 10.1 of the DEIR, and those that could be potentially significant are listed below. It is expected that the KWBA would construct an additional 1,200 acres of percolation ponds within the intermittent wetland habitat in the future.

The KWBA manages the KWB Lands in accordance with the approved HCP/NCCP. Because the KWB Lands is under a HCP/NCCP, the KWBA is required to follow specific guidelines to prevent take of special status species and to enhance and preserve the natural habitat currently present. While no incidental take has occurred since the KWBA's development of the KWB Lands (with the exception of the San Joaquin woolly threads), it is possible that cumulative development could result in take during construction, operation and maintenance, through collapsed burrows, road kills, crushed by grading equipment, harassment, habitat loss, drowning, etc. However, as mentioned on page 7.4-19, the KWB Lands HCP/NCCP does allow for the incidental take of up to 161 individuals of rare, threatened or endangered species with documented occurrences or potential habitat in the project area that may be affected by the proposed project, or species that do not currently occur and for which habitat does not currently exist in the project area, but for which habitat may be created in the future.

As noted in the DEIR on page 10.1-26 under Impact 10.1-3, Mitigation Measure 7.4.3 is currently implemented by the KWBA as required by the KWB HCP/NCCP and as a result cumulative impacts to special-status species on the KWB Lands would be reduced to a less-than-significant level. Impacts to terrestrial biological resources in the southern San Joaquin Valley portion of Kern and Kings Counties would be reduced through the mitigation measures in Mitigation Measure 7.4-2; however because the Department has no jurisdiction over local agency decisions and the impacts of individual activities are unknown at this time, the cumulative impact could remain significant and unavoidable.

Mitigation Measure 7.4-3 would require the use of a biological monitor, special construction activities and on-going practices that would result in a heightened awareness and education regarding sensitive biological resources. In addition, the use of a project representative as a liaison between the project and the resource agencies would expedite notification regarding any take of a listed species. This mitigation measure also outlines avoidance protocol to further reduce the likelihood of take.

### 16.2.8 KWBA as a Public Agency and Arrangements with Other Entities

Comments addressed in this subsection include: 11-2, 21-60, 21-61, 22-25, 26-1, 30-43, 30-124, 31-1, 34-1, 36-17, 65-1, 67-34, 67-36, and 67-37.

Some comments expressed opposition to what they call a "give away to private interests" of the KFE property which was created and developed with public dollars, or express concern that the KWBA is managed by a private interest or dispute the arrangement among the KWBA and surrounding entities.

The KWBA is a public agency subject to open meetings and other laws applicable to public agencies. As a public agency the KWBA is subject to CEQA. The KWBA currently has public board meetings on the third Monday of each month at 7 a.m., at 1620 Mill Rock Way Suite 500, Bakersfield, California. The website address is http://www.kwb.org/main.htm. The KWBA includes its annual financial statements in the annual compliance reports that it submits to USFWS and DFG.

Some of the comments argue that members of the KWBA are private entities; that the KWBA serves the interests of private corporations; and that the transfer of the KFE property has been environmentally destructive. Others argue that the KWB Lands are not being used in the way local interests originally contemplated it use. The nature of the management and membership of the KWBA and the relationships with its participants and surrounding land owners relate primarily to the KCWA entities and their share of use of the KWB Lands. For the most part, these issues are beyond the scope of this EIR because although they may public policy issues, they are generally not environmental issues. Economic or social effects of a project are not treated as significant effects on the environment unless they cause physical changes to the environmental. To the extent that these concerns relate to the environmental impacts of the transfer of the KWB Lands, they are covered in the EIR (see FEIR Subsections 16.2.5 and 16.2.7). To the extent that these concerns relate to each party's share or use of the project, including private parties, these are primarily social and economic issues that pertain to the contractual and other arrangements among water users in Kern County, and legislative issues that pertain to how water entities are formed and operated. See FEIR Subsection 16.2.11 for a discussion of the KWB Lands and the issue of water marketing. See FEIR Subsection 4.2.1.3 for more discussion on the scope of the EIR.

The following information is included in this FEIR to provide additional background and information to help the public and decision-makers understand the environment and context in which the Monterey Agreement and the Monterey Amendment were negotiated. The KWBA was created to own, develop, operate, and manage the KWB. Its Member Entities were members of the KCWA and Dudley Ridge WD, the two water districts that collectively retired 45,000 AF of Table A amounts as part of the Monterey Amendment (see FEIR Subsection 16.2.4). Their ownership allocation in the KWBA mirrors their share of Table A that was retired (see Table 3 in DEIR Appendix E). Westside Mutual Water Company is a not a public agency and the water company may be composed of members that are private corporations, including Paramount Farming. However California law permits mutual water companies to be a member of a joint power authority. As a water service provider to landowners within the Belridge Water Storage District and Lost Hills Water District, Westside Mutual Water Company was allocated Table A amounts which were retired and which gave it the right under the KWBA Joint Powers Agreement to have a similar share in the KWBA (see DEIR Appendix E, pages 13-15).

The KWBA operates the KWB Lands subject to the requirements of the Memorandum of Understanding Regarding Operation and Monitoring of the KWB Groundwater Program (KWB

MOU). This agreement was a prerequisite to the KWBA member entities' agreement to retire the 45,000 AF Table A amounts in exchange for the transfer of the KFE property from the Department for the member entities' development of a water bank. The KWB MOU parties include the KWBA, its member entities, and the Adjoining Entities (the districts surrounding the KWB Lands). The overall objective of the KWB MOU parties is that the "design, operation and monitoring of the Project be conducted and coordinated in a manner to insure that the beneficial effects of the Project to the Project Members [Member Entities] are maximized but that the Project does not result in significant adverse impacts to water levels, water quality or land subsidence within the boundaries of the Adjoining Entities." The adjoining entities include Buena Vista WSD, Rosedale-Bravo WSD, Kern Delta WD, Henry Miller WD and West Kern WD. The MOU prescribes various measures to protect water levels and water quality and establishes a Monitoring Committee which includes several basin stakeholders including the KCWA and all adjoining water districts (see DEIR Appendix E, pages 15 and 16).

### 16.2.9 Assurances Regarding KFE Lands

Comments addressed in this subsection include: 11-1, 30-38, 67-28, and 67-37.

Some comments were unclear on the subject of whether the transfer of the KFE property could be undone or restored to State ownership and oversight.

As noted in DEIR Section 4.5.4 on page 4-11, the Settlement Agreement in Section V(A) specifies that the KWBA retains title to the KFE property and that the KWBA can operate and administer the KWB Lands including the water bank. However, Section V(B) of the Settlement Agreement places certain restrictions on the uses of the lands. If the KWBA determines that use of the lands as a water bank becomes legally or economically infeasible, and the SWP has no other use for the lands, or if the Department and the KWBA are unable to agree on terms and conditions for such SWP use, then the KWBA may transfer or develop the lands for another purpose, provided that any adverse environmental impacts result from the new use are mitigated.

Any net proceeds of land transfer or development will be used by the KWBA for water management purposes. The KWBA developed the HCP that specifies how the lands over the water bank must be managed to protect endangered species (see DEIR Appendix D for the entire Settlement Agreement).

The issue of whether the transfer of the KWB Lands could or should be undone or restored to State ownership and oversight is a legal and public policy issue, but not an environmental issue. For the most part, these issues are beyond the scope of this EIR. Economic or social effects of a project are not treated as significant effects on the environment unless they cause physical changes to the environmental. To the extent that these concerns relate to the environmental impacts of the transfer of the KWB Lands, they are covered in the EIR (see FEIR Subsections 16.2.5 and 16.2.7). See FEIR Subsections 16.2.8 on KWBA as a pubic entity and 16.2.11 on the KWB and water marketing. See FEIR Subsection 4.2.1.3 for more discussion on the scope of the EIR.

### 16.2.10 Land Use Restriction on 490 Acres of the KWB Lands

Comments addressed in this subsection include: 11-1, 11-6, 21-61, 30-38, 30-43, 30-129, and 67-39.

Several comments wanted the FEIR to re-iterate that under the Settlement Agreement, 490 acres of the 3,267 acres in the conservation bank of the KWB Lands originally planned for development, would not be developed (*Initial Study and Addendum to Monterey Agreement EIR of the Kern Water Bank Authority: Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan, June 3, 1997*). There are several references to such parcel in DEIR Appendix E, Sections VIII.B.2 and VIII.F.2, but the Department also notes it here.

The HCP that the Department was negotiating prior to the transfer of the KFE property allowed developed uses on about 4,000 acres of the KFE. Developed uses include farming, permanent facilities for the KFE, and commerce. Approximately 490 acres were designated for possible commercial use (near Interstate 5), but between 1996 and 2003, no development occurred on the 490-acre parcel.

As stated in the Settlement Agreement Section V(B)(4), "The approximately 490 acres currently subject to restrictions in the HCP, permitting use thereof as Conservation Bank Lands (as defined in the HCP), but which may be developed under the HCP, will continue to be subject to the restrictions in the HCP but may not be developed." Because the Settlement Agreement prohibits development of this parcel, the parcel would remain undeveloped under the proposed project. This restriction will become final upon the filing of a NOD following the completion of the Monterey Plus EIR, a discharge of the writ of mandate in the underlying litigation as provided in the Settlement Agreement, and a conclusion of all litigation in a manner that does not invalidate the Monterey Amendment (or any portion thereof) or the KFE property transaction (Section V(F) of the Settlement Agreement).

### 16.2.11 KWB Lands and Water Marketing

Comments addressed in this subsection include: 14-3, 14-4, 14-5, 21-60, 21-61, 30-109, 30-124, 30-129, 30-132, 34-1, 36-17, 42-12, 62-11, 67-6, 67-34, 67-35, and 67-38.

Several comments indicated that the KWB Lands have been operated primarily for water marketing purposes and financial gains. Economic or social effects of a project are not treated as significant effects on the environment unless they cause physical changes to the environmental. Financial gain may be an intended or incidental result of the Monterey Amendment, but it is only a CEQA issue if it could result in potential significant adverse environmental impact. To the extent that these comments relate to the environmental impacts of the transfer of the KWB Lands, they are covered in the EIR (see the discussion below and FEIR Subsections 16.2.5 and 16.2.7). In addition some of the following information is included to provide additional background and information to help the public and decision-makers understand the environment and context in which the Monterey Agreement (and the Monterey Amendment) was negotiated.

The KWB Lands is part of an extensive and complicated water management system in the San Joaquin Valley which includes numerous water management exchanges and same landowner transfers (i.e. a landowner with water in two different water districts). See DEIR Appendix E, pages 26 and 27. Monterey Amendment-facilitated storage outside the service area has all taken place in Kern County – although only a small portion has taken place in the KWB Lands (see DEIR 6-55 and 6-56). From 1995 to 2005, the KWBA delivered approximately 1.3 million AF of water for recharge. Most of this recharge occurred during 1995 to 1998 and 2005, years in which precipitation was above average. Sixty percent of the amount recharged came from the SWP (only a very small percentage of that is Dudley Ridge WD's SWP water for storage outside of its service area; the rest is use by KCWA of its SWP water in its SWP approved service area), 13 percent from the CVP Friant-Kern and 27 percent from the Kern River (local

sources). Water stored in the KWB Lands has been recovered by the KWBA participants either for their own direct use or for sale to others. From 1995 through 2005 (years including or following dry years), recovery for participants totaled 138,224 AF. During the same period, water sales totaled 423,320 AF. Three quarters of this amount was sold to the EWA. The remainder went to agricultural entities within the San Joaquin Valley, a wildlife refuge, a power plant located within Kern County, and four percent made available to adjoining water districts. KWB Lands water operations are described in DEIR Appendix E, pages 26-37. No water from the KWB Lands was sold to SWP M&I contractors.

Water transferred out of the KWB has been primarily for EWA purposes. See Response to Comment 30-43 in FEIR Section 7.2, for a summary of EWA's actual purchases from 2001 to 2007. The EWA Agencies were required to purchase water from willing sellers, and expected the selling agencies to price the water in a way that would recover the expenses and losses associated with the banking and withdrawal of the water plus a profit. While these sellers of water benefited from the EWA water, the EWA Agencies faced a limited market of willing sellers, especially in the export service area. Surface reservoir supplies are not available from the export service area, leaving established groundwater banks as the primary available source. Because of limitations in cross-Delta transfer capacity in most years, purchases from Kern County groundwater banks made sense from the EWA buyer's perspective because there were no carriage losses or other risks to EWA from moving water through the Delta. Purchase efforts were made so that the benefits of the EWA water were shared among all SWP contractors and CVP Delta export contractors in proportion to EWA pumping curtailments, knowing that EWA funds were limited. From 2002 to 2005, and again in 2007, the EWA Agencies purchased water from KCWA and allowed KCWA to enter into its own subsequent negotiations with its member agencies. Thus the EWA Agencies did not engage in the negotiations that determined the sharing of the responsibilities and benefits of the EWA transactions at the local level within Kern County. Similarly, the Department did not examine how KCWA and its member agencies used the proceeds of the EWA sales, what reliance they placed on the revenues, or what infrastructure improvements were funded by the proceeds within Kern County. The Department made sure that the EWA received the water that the EWA Agencies had purchased, and that the water was used as prescribed within the EWA Program. Impacts of the purchases were discussed in environmental documents prepared for the EWA. See Response to Comment 30-43 in FEIR Section 7.2. There is no plan at this time to provide for additional public funding to continue EWA. Since 2008, public funding has been insufficient to provide replacement water to compensate for reductions in Delta pumping to protect Delta fish species as has been the case in prior years. See FEIR Subsection 7.2.2.1.5.

Transfers, exports or sales of water from the KWB Lands are also likely to be limited in the future. As noted in Section V(B)(5) of DEIR Appendix E (pages 16 and 17), priorities for the water from the KWB Lands are for KCWA entities and Dudley Ridge WD. Any excess capacity beyond that needed for these priorities can be used by others only under terms and conditions acceptable to KWBA and KCWA. Therefore any transfers from the KWB Lands require the approval of KCWA. Department approval is required for conveyance of banked SWP water through SWP facilities for return to Dudley Ridge WD or to downstream KCWA member units. CVP contracts place limitations on potential sales of Friant-Kern CVP water. A place-of-use restriction requires the use of banked Friant-Kern groundwater within the CVP place of use. Consequently, these agreements and restrictions limit the amount and classification of water that may be transferred to water agencies outside of Kern County.

This EIR is not intended to cover additional environmental review, if necessary, including specific operating parameters of the locally-owned KWB Lands or a detailed analysis of how the water in the bank is stored or allocated. As discussed in FEIR Chapter 8, Subsection 8.2.2.2,

even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities, local water resources, and local water use. Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. The authority to identify, monitor, or regulate each individual decision made by local government. Moreover, such an analysis would require decisions about water supply and use that traditionally have been made locally. The authorities of the local agencies and of the Department would need to be changed by legislation before the Department could exercise the suggested powers over local water service agency decisions. The Department believes local officials should continue this role. For further discussion of the KWB Lands see FEIR Chapter 16.

As discussed in FEIR Subsection 16.2.5, once the land was transferred, the KWBA, as owner of the KWB Lands had an obligation to comply with CEQA for any changes in use of the property. See discussion in FEIR Subsection16.2.1 on the Addendum prepared by KWBA in 1997. The Monterey Plus EIR is not intended to cover additional environmental review, if necessary, including specific operating parameters of the locally-owned KWB nor does it present a detailed analysis of how the water in the bank is stored or allocated. See FEIR Subsection 4.2.2.3.2.

The transfer of the KFE property to KCWA and subsequently to KWBA has given the KWB Lands participants more flexibility in the storage and management of their water supplies. It has provided more flexibility of total water supplies not only from the SWP, but water supplies from the Friant-Kern system, and the Kern River. In very wet years, significant quantities of flood waters from the Friant-Kern system and the Kern River that otherwise would be diverted into the California Aqueduct Intertie, are available for recharge in the KFE area, since upstream water right holders cannot beneficially use the water. As noted in DEIR Appendix E, Section VII, KCWA could have stored all SWP water deliveries from 1995 though 2004 in other Kern Fan projects, absent the KWB Lands. Additionally, it is not unrealistic to think that KCWA member units would have expanded their existing recharge projects or created new recharge opportunities due to the favorable geology for groundwater banking in Kern County, and their location in relation to the SWP, the Friant-Kern, and the other rivers that bring occasional high flows into Kern County.

As noted in DEIR Subsection 6.4.2.1 on pages 6-21 through 6-28, the period from 1996 through 2005 had more favorable hydrology, and as shown in Table 6-8, seven of the 10 years were at or above the “Above-Normal” water year classification. KCWA and its member units not only can store water in the KWB Lands, but also in groundwater storage facilities near and adjacent to the Kern River. This abundant supply in 2005 and 2006 created numerous recharge opportunities for KCWA. There are now close to 20 groundwater recharge sites in the Southern San Joaquin Valley portion of Kern County; with about six groundwater recharge projects adjacent the Kern River and near the KWB Lands.

Once recharged into a groundwater basin, the various sources of water occurring in a groundwater basin cannot be differentiated. Groundwater is a shared resource that can be pumped by users for beneficial use. In California, there is no mandatory State groundwater management statute. Through time however, six methods of groundwater management have evolved, three of which deal with overlying property rights, court-ordered rights, and city and county ordinances (Ref: DWR, “Groundwater Management in California: A Report to the Legislature Pursuant to Senate Bill 1245 (1997),” dated 1999, Chapter 1). For example, a permanent county ordinance requires environmental review of any groundwater transfer out of the southeast portion of Kern County, which overlies the Lahontan Basin.

## 16.3 RESPONSES TO INDIVIDUAL COMMENTS

### Response to Comment 6-4

The comment mentions that the Monterey Amendment added Article 52 for the transfer of the KFE property, and questions the application of CWC Section 11464 to the transfer. Although validity of the transfer of the KFE property is not an environmental issue that must be analyzed in this EIR, some background and clarifying information is provided. See FEIR Subsection 16.2.2.3 on the discussion of CWC Section 11464. Also see FEIR Subsection 4.2.1.2 on decisions to be made by the lead and responsible agencies.

### Response to Comment 11-1

The comment begins by summarizing several aspects of the KWB Lands project after the transfer of the KFE property from the State to KCWA. The comment mentions the environmental HCP/NCCP as well as mitigation measures under the Initial Study and Addendum to the Monterey Amendment 1995 EIR, under which it operates. The comment then proceeds to address the Monterey Amendment Settlement Agreement and several provisions relating to the KWB Lands, such as assurances regarding title to the KFE property and restrictions on 490 acres of KWB Lands. The comment also expresses support for the continued implementation of the Monterey Amendment. See FEIR Subsections 16.2.1, 16.2.2, 16.2.9, 16.2.10, and 17.2.3. See also the subsection entitled, "Nomenclature," where the Department has clarified terminology (at the end of FEIR Section 16.1).

Footnote 2 of the comment notes uses of different terms in various instances throughout the DEIR that refer to the Kern Fan Element or KFE property when the term should instead be the Kern Water Bank or KWB lands. The comment did not identify or suggest revisions in all such instances. The Department agrees that the property in the DEIR should be called the "KFE property" when owned by the Department and called the "KWB Lands" after it was acquired by the KWBA. The FEIR has made necessary corrections in this regard in responding to comments that deal with Kern Water Bank issues. See also Section 16.1. Since the Kern Water Bank is referred to numerous times and in numerous locations throughout the DEIR, no text changes will be made to the DEIR.

See also Response to Comment 11-1 in FEIR Chapter 4.

### Response to Comment 11-2

The comment asks that the FEIR clarify that the transfer was in exchange for the retirement of the 45,000 AF of Table A amounts and asks that the FEIR include a statement to the effect that the transfer of the KFE property was "in exchange for" the retirement of the 45,000 AF and that each member of the KWBA in fact caused the retirement of Table A amounts totaling 45,000 AF which benefited the SWP. This has been done in FEIR Subsection 16.2.4, "Clarification of the Retirement of Table A Amounts for the Transfer of the KFE."

In footnote 7, the comment also asks that the FEIR clarify that KWBA is a public agency subject to laws that apply to all public agencies. See FEIR Subsection 16.2.8.

### Response to Comment 11-4

The comment suggests that the KFE property under NPA1, CNPA3, and CNPA4 may have had other uses and that there is no reason to believe that a State-owned water bank on the KFE

property would have occurred. The KFE property was transferred over 10 years ago. Four versions of the no project alternative and one alternative are examined in the DEIR because there is disagreement and uncertainty over how to characterize what would occur in the absence of the Monterey Amendment. The alternatives are described on pages 11-1 and 11-2 of the DEIR and include three versions that involve a State-owned water bank and two versions that involve a locally-owned water bank. Altogether all the alternatives discussed in the DEIR present a reasonable range of alternatives for agency and public consideration. See Response to Comment 11-4 in FEIR Chapter 11.

The comment also suggested that the FEIR recognize and explain the various reasons why the Department previously concluded a state-owned water bank was infeasible including that it was not able to comply with CWC Section 11258. See FEIR Subsections 16.2.1 and 16.2.2.1 and 16.2.3. See FEIR Subsection 16.2.6 on the Department's assumptions for a State-owned water bank.

## Response to Comment 11-5

The comment asks for further clarification in the FEIR on the potential environmental effects resulting from a State-owned water bank and whether a State-owned water bank could contribute to reduction of Delta outflow and have a significant effect on Delta fishery resources. See FEIR Subsection 16.2.6 which clarifies that a State-owned KFE could result in approximately a two percent increase to the total diversions from the Delta in critically dry years under 2003 conditions and a 4 percent increase under 2020 conditions. This could be a significant impact for NP1, CNPA3, and CNPA4, which would change Table 11-23 in the DEIR to state that for these alternatives, increased Delta pumping could adversely affect Delta fisheries. The following text changes are made to the DEIR.

The following paragraph is added at the end of Section 11.6 on page 11-31 of the DEIR as follows:

> Even though this pumping would have been in compliance with then-current and future more stringent regulatory requirements, the FEIR reflects a potentially significant impact to Delta fisheries in DEIR Table 11-23. The Department would have provided appropriate mitigation for any incidental take of winter-run salmon. Regardless, the Department could only move water to a State-owned KFE storage project as allowed under its permits, that is, the requirements of the D-1641 and other regulatory constraints.

The last sentence of the third paragraph on page 11-32 of the DEIR is revised to read as follows:

> Construction of a state-owned bank would have similar impacts to those that occurred when the Kern Water Bank Authority constructed its groundwater banking facilities on the property, except that increased pumping from the Delta could result in a potentially significant impact on Delta fisheries.

On page 11-33 of the DEIR, Table 11-23 is revised as follows:

**TABLE 11-23**

**ENVIRONMENTAL IMPACTS OF ALTERNATIVES**

| | Proposed Project | NPA1 | NPA2 | CNPA3/CNPA4 | Alternative 5 |
|---|---|---|---|---|---|
| Impacts of Delta fisheries | Increased Delta pumping could adversely affect Delta fisheries | ~~No Impact.~~ Increased Delta pumping could adversely affect Delta fisheries | 1996-2003: same as proposed project. Future: similar to but less than proposed project | ~~No Impact.~~ Increased Delta pumping could adversely affect Delta fisheries | No Impact |
| Impacts on environmental resources at Lake Perris and Castaic Lake | Extreme drawdown of reservoirs at times could harm fish, wildlife, culture resources, etc. | No Impact | 1996-2003: same as proposed project. Future: No Impact | No Impact | No Impact |
| Impacts on environmental resources in San Joaquin Valley portion of Kern County | Impacts associated with construction of percolation ponds and conversion of annual to permanent crops | Similar to but less than proposed project | 1996-2003: same as proposed project. Future: similar to but less than proposed project | Similar to but less than proposed project | No Impact |
| Impacts on environmental resources in Plumas County | Impacts associated with stream restoration facilities | No Impact | No Impact | No Impact | Same as proposed project |

## Response to Comment 11-6

The comment notes that the Settlement Agreement prohibits the development of 490 acres of the KWB lands that are otherwise commercially developable under the HCP/NCCP. See FEIR Subsection 16.2.10.

As noted by the comment, the Settlement Agreement includes a provision that prohibits development of 490 acres of land that would otherwise be commercially developable. Thus, a potential impact of NPA2 would be development of the 490 acres of land for commercial purposes. Therefore, the last paragraph on page 11-32 of the DEIR is revised to read as follows:

> NPA2 would have the same effects as the proposed project for 1996 through 2003. In the future, NPA2 would have a lesser effects than the proposed project on Delta fisheries ~~and in the San Joaquin Valley Portion of Kern County~~. It would have less environmental effects than the proposed project in the San Joaquin Valley portion of Kern County with the exception that 490 acres of land in the Kern Fan Element that could not be developed with the proposed project, could be developed under NPA2. It would have no effects in the future on environmental resources at Castaic Lake and Lake Perris and in Plumas County. Alternative 5 would avoid all of the adverse environmental impacts of the proposed project except those in Plumas County.

See also Response to Comment 11-6 in FEIR Chapter 11.

## Response to Comment 11-8

The comment states that it incorporates comments from the State Water Contractors' by reference and makes them a part of the commenter's comments. Responses to each comment of the State Water Contractors are found in Responses to Letter 16.

The comment also refers to Exhibit A of Comment Letter 11 which includes a number of technical comments. A response to each technical comment raised in Exhibit A follows.

The comment suggests that the second sentence in Table ES-1 of the DEIR under Impact 7.8-3 is not accurate. The second sentence under Impact 7.8-3 on page ES-37 of the DEIR is revised to read as follows:

> Between 1996 and 2003, an additional ~~1,665~~ 4,080 acres were converted to shallow percolation ponds.

The comment suggests that the first sentence of the second paragraph on page 6-22 of the DEIR be revised to reflect that the transfer is from agricultural to M&I contractors. See Response to Comment 16-57.

The comment requests that Table 7.4-2 on pages 7.4-5 through 7.4-10 of the DEIR be revised to delete the "x" form the Buena Vista Lake Shrew with respect to the KFE. As discussed in Response to Comment 16-104, as described on page 5-2 of the DEIR, the Department used two time periods to evaluate impacts of the proposed project – 1995 and 2003. No change to Table 7.4-2 will be made. While the Department does recognize that the status of some species has changed, it has reviewed the status changes and has determined that any status change would not change the nature or magnitude of the impacts or mitigation measures proposed. See Response to Comment 16-104 in Section 7.3 of the FEIR.

The comment requests revising the DEIR to include language from the 1987 MOU; however, the MOU was for a State-owned and operated KWB and the language included in the second paragraph on page 7.4-11 and the second paragraph on page 7.5-3 of the DEIR is correct and no revision is necessary.

The comment requests that reference to the 635 acre KWBA Mitigation Parcel be mentioned on page 7.4-25 of the DEIR. The following bullet is inserted after the first bullet on page 7.4-25 of the DEIR:

- KWBA Mitigation Parcel – a 635-acre conservation easement has been established for the KWBA. This easement will be managed by KWBA in accordance with the management plan established for the area (see DEIR Appendix E, p. 23).

The comment requests that text in the third paragraph on page 7.4-27 of the DEIR be revised to clarify the status of mitigation measures for the KWB Lands. The following sentence is added following the first sentence of the third paragraph on page 7.4-27 of the DEIR:

> Under the Settlement Agreement, the parties recognize that the Addendum has been completed and agree not to challenge the mitigation measures (Settlement Agreement, III.F).

The comment requests that the discussion under Impact 7.5-3 (1996 to 2003) on page 7.5-13 of the DEIR be revised to correct inaccurate acreage numbers. The second paragraph on page 7.5-13 of the DEIR is revised to read as follows:

> ~~Prior to~~ At the end of 1995, approximately 3,034 acres of shallow percolation ponds existed in the Kern Fan Element. The KWBA subsequently constructed the Kern Water Bank Canal; a six-mile long earthen canal extending from the Kern River to the California Aqueduct.[13] Between 1996 and 2003, an additional ~~1,665~~ 4,080 acres were converted to shallow percolation ponds, for a total of ~~4,669~~ 7,114 acres in 2003 in the Kern Fan Element (see DEIR Appendix E, p. 21).

The comment requests that the first paragraph discussion under Impact 7.5-3 (Future Impacts) on page 7.5-13 of the DEIR be revised to reflect the correct acreage of percolation ponds that the KWBA authority built. The fourth paragraph on page 7.5-13 of the DEIR is revised to read as follows:

> As noted above, between 1996 and 2003, the KWBA built approximately ~~1,665~~ 4,080 acres of shallow percolation ponds within the lands designated as intermittent wetland habitat.

The comment requests that the first paragraph discussion under Impact 7.7-3 (Future Impacts) on page 7.7-10 of the DEIR be revised to reflect the correct acreage of percolation ponds that the KWBA authority built. The fifth paragraph on page 7.7-10 of the DEIR is revised to read as follows:

> Between 1996 and 2003, the KWBA built approximately ~~4,700~~ 4,080 acres of shallow percolation ponds in the Kern Fan Element as part of a groundwater recharge project designed to take advantage of one of the provisions of the Monterey Agreement.

The comment requests that the first paragraph discussion under Impact 7.8-3 (1996 to 2003) on page 7.8-9 of the DEIR be revised to correct inaccurate acreage numbers. The third paragraph on page 7.8-9 of the DEIR is revised to read as follows:

> Between 1996 and 2003, an additional ~~1,665~~ 4,080 acres were converted to shallow percolation ponds, for a total of ~~4,699~~ 7,114 acres in 2003 in the Kern Fan Element.

The comment requests that the third sentence of the last paragraph on page 7.10-3 of the DEIR be revised to delete the "and" between "Kern Water Bank Canal" and "a six-mile long earthen canal." The third sentence of the last paragraph on page 7.10-3 of the DEIR is revised to read as follows:

> KWBA also constructed the Kern Water Bank Canal, ~~and~~ a six-mile long earthen canal extending from the Kern River to the California Aqueduct.

The comment notes that endnote 3 is missing on page 7.10-5 of the DEIR. The endnotes for Section 7.10 on page 7.10-5 of the DEIR are revised to read as follows:

> 3~~4~~. Jonathon Parker, Kern Water Bank Authority, personal communication with John Davis, EIP team, October 2003.
>
> 4~~5~~. Kern Water Bank Authority, Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan, October 1997.
>
> 5~~6~~. Kern Water Bank Authority, Kern Water Bank Habitat Conservation Plan/Natural Community Conservation Plan, October 1997.

The comment notes that the second paragraph on page 7.11-5 of the DEIR contains some inaccurate acreage numbers and other information that should be revised. The second full paragraph on page 7.11-5 of the DEIR is revised to read as follows:

> As mentioned previously, by the end of 1995, 3,034 acres of shallow recharge ponds existed in the Kern Fan Element. Kern Water Bank Authority (KWBA) also constructed the Kern Water Bank Canal; ~~and~~ a six-mile long earthen canal extending from the Kern River to the California Aqueduct.[3] Between ~~1998~~ 1996 and 2003, an additional 4,080 acres were converted to shallow recharge basins, for a total of ~~4,699~~ 7,114 acres in 2003 in the Kern Fan Element (see DEIR Appendix E, p. 21). …

The comment requests that page 7.12-6 of the DEIR be revised to correct acreage numbers. The first full paragraph on page 7.12-6 of the DEIR is revised to read as follows:

> The Kern Fan Element consists of ~~20,546~~ 19,900 acres of land located in Kern County southwest of Bakersfield. …

The comment requests that the DEIR be revised to include language clarifying when the transfer agreement occurred, to clarify that the KWB is within the service area of all its member entities except for Dudley Ridge WD, and to correct acreage numbers. The second and third paragraphs on page 7.12-13 of the DEIR are revised to read as follows:

> The Monterey Amendment calls for ownership of the Kern Fan Element to be transferred from the Department to the KCWA. The transfer agreement was entered in 1995 and the transfer closed escrow in 1996. ~~This occurred in 1995.~~ The KCWA then transferred

> ownership to a new agency, the KWBA. The KWBA built a groundwater storage facility, the Kern Water Bank~~, to take advantage of a provision of the Monterey Amendment that enables SWP contractors to store water outside their service areas~~. The primary reason for KWBA's acquisition of the KWB Lands and construction of a Kern Water Bank was to ensure a more reliable water supply for its member entities: storage of water during times of surplus in service area for later recovery during times of shortage and use in service area (see primary water conservation objective of HCP/NCCP).
>
> Between 1996 and 2003, as part of the Kern Water Bank, approximately 4,080~~1,665~~ acres of land were converted to shallow percolation ponds, a six-mile long earthen canal, the Kern Water Bank Canal, and several wells and pump stations were built. …

The comment requests that the third sentence of the last paragraph on page 7.13-21 of the DEIR be revised to delete the "and" between "Kern Water Bank Canal" and "a six-mile long earthen canal." The last sentence of the third paragraph on page 7.13-21 of the DEIR is revised to read as follows:

> The KWBA also constructed the Kern Water Bank (KWB) Canal, ~~and~~ a six-mile long earthen canal extending from the Kern River to the California Aqueduct.

The comment requests revising the DEIR to include language from the 1987 MOU; however, the MOU was for a State-owned and operated KWB and the language included in the second paragraph on page 7.15-2 of the DEIR is correct and no revision is necessary.

The comment requests that the second sentence of the last paragraph on page 7.15-8 of the DEIR be revised to delete the "and" between "Kern Water Bank Canal" and "a six-mile long earthen canal." The second sentence of the last paragraph on page 7.15-8 of the DEIR is revised to read as follows:

> KWBA also constructed the Kern Water Bank Canal, ~~and~~ a six-mile long earthen canal extending from the Kern River to the California Aqueduct.

The comment notes that the DEIR refers to the Kern Fan Element or KFE property when the reference should instead be to the Kern Water Bank or KWB lands and vice versa. See the introduction of to Chapter 16 of the FEIR.

## Response to Comment 14-1

The comment expresses concern with the past, present, and potential future use and operation of the KFE property. See FEIR Subsections 16.2.1 and 16.2.7.

## Response to Comment 14-2

The comment asks whether the DEIR is a project EIR or a program EIR with respect to past, present, and/or potential future use and operation of the KWBA Lands. This EIR discusses the environmental impacts associated with the transfer of the KFE property to KCWA. It also discusses environmental documentation that has been completed to date on the KWB.

Once the land was transferred, the KWBA, the owner of the KWB Lands, had an obligation to comply with CEQA for any changes in use of the property. The DEIR discussed the environmental documentation that has been completed to date for the transfer of the State-owned KFE property and after, as the locally-owned KWB Lands project, in Appendix E. The

Department is not aware of any plans at this time to prepare any further environmental documentation concerning the locally-owned KWB Lands project. The Department will review, as appropriate, any additional environmental documentation prepared by KWBA or other agencies. To the extent appropriate, later environmental documents may use information in this EIR to provide CEQA-required information. This EIR is not intended to cover additional environmental review, if necessary, including specific operating parameters of the locally-owned KWB nor does it present a detailed analysis of how the water in the bank is stored or allocated. See FEIR Subsection 4.2.2.3.2. See also FEIR Subsections 16.2.1, 16.2.2, and 16.2.5 and Response to Comment 14-2 in FEIR Chapter 4.

## Response to Comment 14-3

The comment suggests that the project description for the KWB Lands is inadequate because it is impossible to determine from the DEIR what the KWB project actually is or consists of. The locally-owned KWB project is described in Appendix E and its impact on resources is analyzed in different resources subsections of Chapter 7 of the DEIR. It was also described as a State-owned project in Chapter 11. The same land is involved for similar purposes regardless of whether it is part of a locally-owned or State-owned project – to store surplus water during years of abundant supply for extraction and use in dry years by developing a water recharge and recovery facility, which would provide intermittent wetlands. To the extent that the property is used to store local supply, it can be used to supplement KCWA's SWP supplies in times of shortage. To the extent that it could have been used for SWP supply, it could have provided more SWP water to all SWP contractors in times of shortage. The difference in the delivery impact of the water bank used for local purposes, or used for SWP purposes can be seen by comparing the impacts of the proposed project with NPA1. The only difference between these two projects is whether the KFE property is operated to improve reliability of local supplies or reliability of SWP supplies. See FEIR Subsections 16.2.5, 16.2.6, and 16.2.7.

## Response to Comment 14-4

The comment suggests that the KWB Lands have been operated primarily for water marketing purposes and that the DEIR should identify all operating parameters for the KWB Lands including water marketing programs. As noted in "Agreement for the Exchange of the Kern Fan Element of the Kern Water Bank by and between the Department of Water Resources of the State of California and Kern County Water Agency" dated December 13, 1995, the exchange of the property was to be for the purpose of "the development, operation and maintenance of a project upon such Property, if legally and economically feasible, for the importation, percolation and storage of water in underground aquifers for later extraction, transportation and use." Additionally, the Addendum provided for the implementation of measures outlined in the Monterey Agreement EIR relative to the KWB Lands by providing technical details as to how the KWB Lands program would be implemented. In that Addendum, the project is identified as the construction, operation and maintenance of the "KWB," a water recharge and recovery, farming, and conservation bank project and related habitat conservation activities proposed on the KFE property.

As discussed in FEIR Subsection 16.2.5, once the land was transferred, the KWBA as owner of the KWB Lands, had an obligation to comply with CEQA for any changes in use of the property. See discussion in 16.2.1 on the Addendum prepared by KWBA in 1997. The Monterey Plus EIR is not intended to cover additional environmental review, if necessary, including specific operating parameters of the locally-owned KWB Lands nor does it present a detailed analysis of how the water in the bank is stored or allocated. As discussed in FEIR Subsection 8.2.2.2 even

though the Department could identify some of the local decisions that may rely on water made available from the proposed project, under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Moreover such an analysis would require decisions about water supply and use that traditionally have been made by local water service agencies acting under their powers granted in the CWC. These decisions are within the authority and control of and properly deferred to local decision-makers where specific projects can be more fully described and are ready for detailed analysis. The authorities of the local agencies and of the Department would need to be changed by legislation before the Department could exercise the suggested powers over local water service agency decisions. The Department believes local officials should continue this role.

The comment states that from 1995 to 2005, 75 percent of banked water recovered from the project has been for water sales to third parties. Water stored in the KWB Lands has been recovered by the KWBA participants either for their own direct use or for sale to others. From 1995 through 2005 (years including or following dry years), recovery for participants totaled 138,224 AF. During the same period, water sales totaled 423,320 AF. Three quarters of this amount was sold to the EWA. The remainder went to agricultural entities within the San Joaquin Valley, a wildlife refuge, a power plant located within Kern County, and four percent made available to adjoining water districts. KWB Lands water operations are described in DEIR Appendix E, pages 26-37. Environmental documents have been prepared on the EWA. There are currently no plans to purchase water for EWA purposes in the future. See FEIR Subsections 16.2.1, 16.2.5, and 16.2.11.

## Response to Comment 14-5

The comment suggests that the project description is inadequate because the DEIR does not discuss a complete operating plan for the KWB Lands, including details about water marketing and meeting dry-year requirements of KWB Lands participants. See Response to Comment 14-2, 14-3 and 14-4. See also FEIR Subsections 16.2.1, 16.2.5, and 16.2.11.

## Response to Comment 14-6

The comment states that reference is made to Figure 9.2-1, Figure 9.2-2, and Table 16 but the same could not be found in the document. The references are to Appendix E and are changed as follows:

Appendix E, page 42, first full paragraph:

> A summary of the results of this analysis are presented in Table ~~16~~10. The summary table shows the ability to absorb the SWP supplies recharged on the KWB considering the unused absorptive capacity of Kern Fan Projects (i.e., the Berrenda Mesa Project, the COB 2800 Acres, and the Pioneer Project, including the Kern River Channel).

Appendix E, page 45, last paragraph:

> Figure ~~9.2-1~~7.2-1 of the DEIR shows total water supplies and water demand in the San Joaquin Valley portion of Kern County between 1970 and 1999. In years when total surface water supplies exceeded demand, the excess supply was added to groundwater storage. In years when total surface water supplies were insufficient to meet demand, groundwater was pumped to meet demand and groundwater storage decreased. Between 1970 and 1995, groundwater storage declined by 6.6 million AF, an average

reduction in storage of 264,000 AFY. Figure ~~9.2-2~~7.2-2 of the DEIR shows cumulative groundwater storage for the period 1970 to 1995. During most of the 1970s, groundwater storage declined as a result of dry conditions and limited access to SWP water due to distribution system limitations. Groundwater storage increased from 1978 until the mid-1980s when a ten-year dry period began, resulting in a decline of approximately 7.3 million AF, compared to 1970 storage levels.

## Response to Comment 16-5

The comment asks for clarification on the sale of KFE property to KCWA. See FEIR Subsections 16.2.1 and 16.2.4.

## Response to Comment 16-21

The comment asks that the DEIR state the reasons that led to the Department not developing the SWP groundwater bank on the KFE property. The reasons why the Department did not develop the KWB are discussed on page 4 of Exhibit E. See also FEIR Subsections 16.2.1 and 16.2.2. The comment also asks for clarification of the terms, “KFE,” “KFE property,” and “Kern Water Bank,” and states that they are sometimes used interchangeably in the DEIR. The Department agrees that the “Kern Fan Element” and the “Kern Water Bank” are not interchangeable terms. This difference is noted on page 5 of DEIR Appendix E and in this chapter of the FEIR under “Nomenclature,” where the Department has clarified terminology (at the end of FEIR Section 16.1).

## Response to Comment 17-6

The comment suggests that the DEIR does not adequately analyze the legality of the transfer of the KFE property. As stated in Response to Comment 6-4, although validity of the transfer of the KFE property is not an environmental issue that must be analyzed in this EIR, some background and clarifying information is provided. See FEIR Subsection 16.2.2.3 on the discussion of CWC Section 11464. Also see FEIR Subsection 4.2.1.2 on decisions to be made by the lead and responsible agencies.

## Response to Comment 17-7

The comment suggests that the DEIR does not adequately analyze the operation of the SWP when Article 18(b) is implemented, and that when surplus water is available in the Delta, a State-owned KFE would be operated to slightly increase the amount of water available to southern California M&I users (and others). The Department analyzed a State-owned KFE storage facility without implementation of Article 18(b) (NPA1), and two with implementation of Article 18(b) (CNPA3, CNPA4). Each alternative provided surplus water deliveries. See FEIR Subsection 13.2.2. See FEIR Chapter 11 for a full discussion of the alternatives.

The comment also notes that the initial documents regarding a State-owned water bank indicated that its operation might have adverse effects on the Delta and that these effects were not analyzed in the DEIR. The Department has clarified that operation of a State-owned KFE storage project could have more adverse effects on the Delta than operation of the KWB as a locally-owned project. See FEIR Subsections 16.2.6 and 16.2.7.

See also Response to Comment 17-7 in FEIR Chapter 13.

## Response to Comment 21-57

The comment claims that the transfer of the KFE property to KCWA fundamentally changes the purpose of a State-owned water bank. See FEIR Subsection 16.2.5. Additionally, see FEIR Subsection 4.2.1.3 on the scope of the EIR and Subsection 5.2.1.2 on whether the Monterey Amendment made fundamental changes to the SWP.

## Response to Comment 21-58

The comment questions how the transfer complies with CWC Section 11464. As stated in Response to Comment 6-4, although validity of the transfer of the KFE property is not an environmental issue that must be analyzed in this EIR, some background and clarifying information is provided. See FEIR Subsection 16.2.2.3 on the discussion of CWC Section 11464. Also see FEIR Subsection 4.2.1.2 on decisions to be made by the lead and responsible agencies.

## Response to Comment 21-59

The comment notes that the impacts found years ago when the Department was planning the KFE storage facility have not been mentioned in the DEIR. As stated in Response to Comment 17-7, the Department has clarified those impacts in the FEIR. See FEIR Subsections 16.2.6 and 16.2.7.

## Response to Comment 21-60

The comment suggests that the FEIR should address the assertions made in Public Citizen's report, "Water Heist" that the KWBA is effectively controlled by a single corporate entity and largely serves the interest of that entity and that operation of the bank has been and will continue to be environmentally detrimental.

Although discussion about the ownership of the KWB Lands is not an environmental issue that must be analyzed in this EIR, some background and clarifying information is provided in this FEIR. See FEIR Subsections 16.2.5 and 16.2.8. Environmental effects of the KWB Lands were analyzed in the DEIR in the resources sections of Chapter 7 and in Chapter 10. See also FEIR Subsections 16.2.5, 16.2.7, and 16.2.11 for more information on the operation and environmental effects of the locally-owned KWB Lands. See also Response to Comment 30-38.

## Response to Comment 21-61

The comment claims that the environmental analysis of the State-owned KFE and the locally-owned KWB Lands in the DEIR is inadequate. See FEIR Subsections 16.2.5, 16.2.6, and 16.2.7 for the difference in environmental effects for the State-owned KFE or locally-owned KWB Lands. Also see FEIR Subsection 16.2.2.2 for more information on the transfer of the KFE property.

The comment expresses concern that under a privately controlled KWB Lands, there can be no assurance that the KWB Lands will be utilized to lessen pressures on the Delta during times of water shortage. See FEIR Subsections 16.2.3 on no impact to other SWP contractors, 16.2.5 on the fact that the fundamental purpose of the use of the KWB Lands has not changed, 16.2.6 and 16.2.7 on a comparison of the different impacts of a state-owned or locally-owned water bank, 16.2.8 on the nature of the ownership of the KWB Lands, 16.2.10 on land use restrictions on 490 acres of the KWB Lands as a result of the Settlement Agreement and 16.2.11 on use of

the KWB Lands for sales to others, including the EWA. See FEIR Subsection 9.2.5.2 on increased use of the banked water to support development of an economy within the area served by such contractor or non-contractor which would be dependent upon the sustained delivery of surplus water. See DEIR Section 7.6 regarding the effect on agricultural resources.

## Response to Comment 22-22

The comment asks that the DEIR address how the operations of a state-owned KFE storage facility would have been expected to occur if the KFE had remained State-owned. Operations under a State-owned KFE storage facility were discussed in the Department's environmental reports, as noted in Subsection 16.2.6.1. Although an analysis of a future State-owned KFE is not part of the project description of the Monterey Plus EIR, the DEIR included operation of a KFE storage facility for SWP purposes in NPA1, CNPA3, and CNPA4. See FEIR Subsections 16.2.6 and 16.2.7 on impacts of operations of a KFE storage facility operated for SWP and local purposes. See FEIR Subsection 4.2.1.3 on scope of the EIR.

Under the locally owned KWB Lands, less water is exported in wet years and more in dry years. The increased energy use resulting from the Monterey Amendment is primarily a result of increased pumping to M&I contractors in southern California. For more on energy use, see DEIR Section 7.16 and FEIR Section 7.8. See also Response to Comment 22-22 in FEIR Section 7.8.

The comment also states that all SWP contractors must pay slightly more for their pumping energy needs because of costs imposed by operations of the KWBA. As stated in FEIR Subsection 2.6.2, each contractor also pays for its own "transportation charge" which repays the cost for construction and operating the aqueduct facilities needed to deliver water to a contractor's service area. These costs include energy costs involved in delivering the water.

## Response to Comment 22-25

The comment suggests that by changing the "water bank from a SWP facility to one owned and operated for the benefit of a limited set of water users, the SWP plans for delivery have necessarily been impacted and as a direct consequence the plans regarding the use of whatever water the water bank could have made available for all the SWP contractors are impacted. See FEIR Subsection 16.2.3 on the impact of the transfer on SWP contractors water supply. See also Subsections 16.2.2, 16.2.5, 16.2.6, 16.2.7, and 16.2.8.

## Response to Comment 23-2

The comment expresses concern over the state's ability to ensure safe drinking water from a privately controlled KWB Lands, rather than a State-owned and developed KFE. The comment also states that a water bank under state administration could help these communities remediate their water quality problems through transfers or conjunctive use. Use of the KWB Lands is an example of conjunctive use and transfers and is discussed as a state owned or locally owned facility in FEIR Subsections 16.2.5, 16.2.6, and 16.2.7. The same land is involved for similar purposes – to store surplus water during years of abundant supply for extraction and use in dry years by developing a water recharge and recovery facility primarily for SWP agricultural contractors.

The Department does not monitor or regulate the use of SWP or any other water. Even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities,

local water resources and local water use. The potential environmental impact of growth is subject to more detailed environmental review at the project level. Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Even if the Department had the authority to make such decisions at this level of detail, it is not timely or practicable for the Department to identify and monitor or regulate individual decisions made by local government or to establish general rules that would govern these decisions. These decisions are within the authority and control of and properly deferred to local decision-makers where specific projects can be more fully described and are ready for detailed analysis. This approach is consistent with the traditional legislative policy that fundamental decisions regarding land use and growth are made through the general planning process at regional and local levels. See FEIR Subsection 8.2.2.2. The Department's role in water reliability planning is discussed in FEIR Subsection 9.2.6.

Separate from its SWP responsibilities, the Department, in cooperation with the Department of Health Services, manages loan and grant programs for safe drinking water. See http://www.grantsloans.water.ca.gov for more information on the Department's programs.

See also FEIR Subsections 17.2.2, 17.2.4.2, and 17.2.4.4.

## Response to Comment 26-1

The comment expresses concern that transferring the State-owned KFE property to a private entity limits the Department's role in dealing with future water shortfalls. See FEIR Subsection 16.2.5 on how the basic fundamental purpose of the KWB Lands did not change as a result of the transfer. See also Subsections 16.2.2 on the transfer and 16.2.4 on the retirement of 45,000 AF of Table A amounts. See also FEIR Subsection 16.2.3 on the effect on contractors' SWP water supply due to the transfer and Subsection 16.2.8 on the nature of the KWBA and its participants.

## Response to Comment 30-8

The comment suggests that the DEIR did not disclose the institutional and environmental consequences of transferring the state-owned KFE property to local interests without any statewide accountability and fails to study alternatives aimed as restoring that accountability. See Responses to Comments 30-37 through 30-45.

## Response to Comment 30-18

The comment states that the court of appeal found that the plaintiffs in *PCL v. DWR* had properly initiated a proceeding to question the substantive validity of the Monterey Amendment, including the transfer of the KWB. See FEIR Subsection 16.2.2. See also Response to Comment 30-18 in FEIR Chapter 4.

## Response to Comment 30-37

The comment claims that the Department must independently study, and exercise its own judgment, on the "transfer, development and operation of the Kern Water Bank." The Settlement Agreement required the EIR to include an independent study by the Department, as lead agency, and "the exercise of its judgment regarding the impacts related to the transfer, development and operation of the KWB in light of existing environmental permits" and "to identify SWP and any non-SWP sources of deliveries to the KWB. The EIR completed this

requirement in DEIR Appendix E. See FEIR Subsections 16.2.2, 16.2.3, 16.2.4, 16.2.5, 16.2.6, and 16.2.7. See also FEIR Subsection 4.2.1.3 on the scope of the EIR. The comment also states that Settlement Agreement allows the Monterey Amendment to continue on an interim basis. See also Response to Comment 30-37 in FEIR Chapter 4 on decisions to be made by the lead and responsible agencies.

## Response to Comment 30-38

The comment expresses concern that the DEIR study methods are too narrow to support the Department's independent judgment on the future of the KWB Lands. See Response to Comment 30-37. The comment also notes the importance of the KWB Lands both because of its size and its location and claims that the "substantial environmental issues associated with the loss of statewide environmental accountability over the bank requires a more probing analysis." The comment asks the Department to consider a report called "Water Heist" by a group called Public Citizens and address it as if it were set forth directly in these comments.

The Department has considered the Public Citizens Report. The following response addresses issues raised by the Report as well as those raised in this comment. The Department agrees that the KWB Lands is important both because of its size and location. The DEIR includes two analyses of the KFE property transfer that examine environmental impacts – one pursuant to CEQA and one pursuant to the Settlement Agreement. Future operations, installations, construction, repairs, maintenance within the KWB Lands are governed by the HCP/NCCP. The management of these facilities is described in the Annual Management Plans submitted to the wildlife agencies. The plans ensure that management activities comply with the HCP's Vegetations Management Plan, the Minimization of Impacts Requirement, and other measures prescribed by the HCP. These were discussed in Appendix E (see Section V.A.2.b in DEIR Appendix E). The Settlement Agreement also included a number of assurances and restrictions with regard to the use or transfer of the KWB lands. See FEIR Subsections 16.2.1, 16.2.2, 16.2.4, 16.2.9, and 16.2.10.

Economic or social effects of a project are not treated as significant effects on the environment unless they cause physical changes to the environmental. To the extent that these concerns relate to the environmental impacts of the transfer of the KWB Lands, they are covered in the EIR. See FEIR Subsections 16.2.3, 16.2.5, 16.2.6, and 16.2.7. To the extent that these concerns relate to who gets the use of the water, including private parties, and who benefits financially, these are primarily institutional, financial, social and economic issues that pertain to the contractual and other arrangements among water users in Kern County and legislative issues that pertain to how water entities are formed and operated. For the most part, these issues are beyond the scope of this EIR. See also FEIR Subsection 4.2.1.3 for more discussion on the scope of the EIR and FEIR Subsection 5.2.1.2 on same project and objectives. See also FEIR Subsection 5.2.3.1 for a discussion on the lead agency's role with regard to establishing objectives for the EIR.

The comment criticizes the sources uses by the Department for its analysis in DEIR Appendix E, and states that the Department should not rely on consultation with Kern County water agencies and federal/state fish and wildlife agencies, but that the Department, as the SWP manager, should provide the analysis needed. The Department agrees that the analysis needed to be done by the Department. The analysis in DEIR Appendix E is the Department's independent analysis based upon information gained from primary sources from the KCWA member agencies with regard to the use of the KWB Lands and from state/federal fish and wildlife agencies with regard to its effect on the environment. The results of KCWA's analysis show that from 1995 through 2004 all SWP water deliveries to the KWB Lands by KWBA

participants located within Kern County could have been recharged in available capacity in these other Kern Fan projects (see Section VII of Appendix E of the DEIR). This conclusion, while based on information received from the KCWA, was independently reviewed at the time the DEIR was prepared and the DEIR concluded that all SWP water delivered to the KWB Lands by KWB participants located within Kern County could have been delivered to KCWA if the Monterey Amendment's transfer of the KFE property had not happened (DEIR Appendix K, page 13). This conclusion was again independently reviewed and confirmed by the Department during the development of the EIR.

The comment asks that the Department include associated agreements for the transfer in the FEIR, in an appendix. These documents consist of hundreds of pages and are identified and discussed in DEIR Appendix E to the extent they are relevant to the environmental analysis. They are available to the public for review. The Department declines to include them as an Appendix in the FEIR.

The comment states that the KWB has a 1 million AF capacity. This statement may have been confused with regard to an earlier Department-proposed KFE groundwater storage program. As noted FEIR Subsection 16.2.1, the Department-proposed 1990 KFE groundwater storage program was to have a 350,000 AF storage capacity. However, in the 1980's the Department did consider a one million AF KFE storage program. This storage capacity does not imply that one million AF of water existed in the groundwater basin. See FEIR Subsection 16.2.2.1.

## Response to Comment 30-39

The comment claims that the transfer of the KFE property changed the purpose of a State-owned bank, and cites the MOU that the Department and KCWA originally had signed during the development of a State-owned KFE storage facility. The history of the KFE property, the change in the Department's thinking from operating a State-owned KFE for SWP uses to transferring it to the KWBA for local uses, and the Department's authority to transfer the KFE property are discussed in FEIR Subsections 16.2.1, 16.2.2, and 16.2.4. The transfer did not alter a fundamental purpose of the water bank. The same land is involved for similar purposes – to store surplus water during years of abundant supply for extraction and use in dry years by developing a water recharge and recovery facility, which would provide intermittent wetlands. To the extent that the property is used for local supply, it can be used to supplement KCWA's SWP supplies in times of shortage. To the extent that it could have been used as an SWP supply, it could have provided more SWP water in times of shortage. See FEIR Subsection 16.2.5.

The comment further notes that the Department must analyze additional alternatives in the EIR to address the local ownership and administration of the KWB Lands. The impacts of a State-owned KFE and operated as a SWP facility are examined in NPA1, CPNA3, and CPNA4. The impacts of the transfer, development, and operation of the KFE property are discussed in the DEIR in relevant resource sections in DEIR Chapter 7 and Appendix E. See FEIR Subsection 16.2.7. The Department considered and rejected a suggested alternative on a KFE for SWP use or transfer with trust conditions; see DEIR Chapter 11 and FEIR Chapter 11 for more discussion on alternatives. See also FEIR Subsection 16.2.6 on clarification of the potential environmental effects resulting from a State-owned KFE. See also FEIR Subsection 5.2.1.2 on same project and objectives. See also FEIR Subsection 5.2.3.1 for a discussion on the lead agency's role with regard to establishing objectives for the EIR.

## Response to Comment 30-40

The comment asks that the FEIR discuss the history and environmental impacts of a State-owned KFE. See FEIR Subsections 16.2.1 and 16.2.2 for a description of the history and the Department's effort and re-evaluation of a State-owned KFE. The Department's planning and environmental costs associated with both a State-owned KFE and a larger multi-element State-owned KWB are outside the scope of the project description of the Monterey Plus EIR. See also FEIR Subsections 16.2.5 and 16.2.6 on potential environmental effects of a State-owned KFE.

## Response to Comment 30-41

The comment suggests that the Department has to disclose the circumstances that caused the Department to cease development of a KFE storage facility and the subsequent transfer of the KFE property. The circumstances surrounding the transfer of the KFE property are disclosed in DEIR Appendix E (page 4 and 10), and in FEIR Subsections 16.2.1 and 16.2.2 which discuss ESA issues and complications in negotiating a local operational agreement with KCWA - a legislatively required prerequisite to development of a State-owned water bank in Kern County.

## Response to Comment 30-42

The comment suggests that the DEIR did not adequately address the details of the purchase agreement with KCWA and that the exchange of the 45,000 AF had no value. See FEIR Subsections 16.2.2.1 and 16.2.2.2 which discuss the complications in negotiating a local operational agreement with KCWA (as required by the CWC). The retirement of a portion of KCWA's Table A was part of the transfer-exchange package. The Department does not agree that it had no value. See FEIR Subsection 16.2.4.

The comment also states that the DEIR does not include an analysis of the economic value of other considerations, including how the State valued the KFE asset, and the sources of water that are stored in the KWB Lands, and the value of SWP water stored in Kern County water facilities. CEQA does not require a detailed accounting of the economic and financial considerations regarding the Monterey Amendment that do not result in physical changes to the environment. Both the Monterey Amendment and the Settlement Agreement are negotiated agreements that reflect a balance among the many negotiating parties with conflicting interests. See FEIR Subsection 5.2.3.1 for a discussion on the lead agency's role with regard to establishing objectives for the EIR and FEIR Chapter 4, Subsection 4.2.1.3 for more discussion on the scope of the EIR.

The comment also states that the Department and KWBA have yet to provide a full account of the sources of water going into the KWB. All sources of water and quantities stored in the KWB Lands are disclosed in DEIR Appendix E, Section VI.A.1.

## Response to Comment 30-43

The comment claims that the DEIR fails to analyze key environmental consequences of the KWB Lands' operation without statewide trust accountability and suggests that the intended use of the bank changed fundamentally when it was transferred. The comment suggests that the purpose of a State-owned KFE was to be used as a drought mitigation bank or to help balance the state's water supply to cities, farms, and fish, or to help manage water resources for a variety of public purposes, including drought storage for emergency preparedness, urban uses, environmental protection, river restoration, and water quality.

The Department does not agree. The transfer did not alter a fundamental purpose of the water bank. The same land is involved for similar purposes – to store surplus water during years of abundant supply for extraction and use in dry years by developing a water recharge and recovery facility, which would provide intermittent wetlands. To the extent that the property is used for local supply, it can be used to supplement KCWA's SWP supplies in times of shortage. See FEIR Subsection 16.2.5. See also FEIR Subsection 5.2.1.2 on same project and objectives and Subsection 5.2.3.1 for a discussion on the lead agency's role with regard to establishing objectives for the EIR.

The comment also suggests that the DEIR does not analyze "pressures on the Delta" caused by the local operation of the KWB Lands. See Subsection 16.2.7.1 for the Department's discussion on Delta impacts. Additionally as stated in the DEIR, the SWP is operated to optimize the capture of water in the Delta, as limited by the need to maintain compliance with water quality objectives in the Delta, other water rights and regulatory constraints, the capacity of SWP facilities (pumping plants, aqueducts, and storage reservoirs), and the availability of water.

The comment also states that under the Monterey Amendment, all contractors can use the KWB Lands to store water and therefore the property transfer has a significant potential to increase demand for and export of Delta water. The comment also states that the KWB Lands has a role in increased deliveries to southern contractors through provisions relating to interruptible water, carryover storage, and the Turnback Pool, and cites to several brochures and reports that it claims support the statements above.

The KWB Lands has no relationship to any potential increase in deliveries to southern contractors through use of interruptible water, carryover storage, or the Turnback Pool, and was not used for out-of-service area storage during the period 1996-2003 (except a very minute portion for Dudley Ridge WD). To the extent that the KWB Lands might be used for out-of-service area storage in the future, it is part of the analysis of water supply management practices. See FEIR Subsections 15.2.2 and 15.2.3. The Department notes that storage outside of contractor's service area in this EIR primarily occurs in the Semitropic Water Storage and Exchange Program in the Semitropic Water Storage District, a member unit of KCWA.

The comment claims that the DEIR fails to analyze the "depletion of the Environmental Water Account" and claims that such depletion was caused by the local operation of the KWB Lands. While the operation of the EWA is a topic separate from the Monterey Amendment and outside the scope of the project description of the Monterey Plus EIR, the Department does not agree that there was a depletion of the EWA caused by local operation of the KWB Lands. However, see FEIR Section 7.2, Responses to Comments 30-43 and 30-127.

The comment claims that the DEIR fails to analyze the increase in the agribusiness footprint caused by a locally-owned KWB Lands, and claims that the DEIR fails to analyze the "constrained public uses" of a locally-owned KWB Lands. The intent of a State-owned KFE and KWBA-owned KWB Lands was identical as far as land use- to develop a water recharge and recovery facility, providing only intermittent wetlands. Additionally, environmental protection is provided for in the HCP; see FEIR Subsections 16.2.1, 16.2.3, 16.2.5, 16.2.6, and 16.2.7. See also Subsections 16.2.8 and 16.2.10 on the KWBA and water marketing. See FEIR Subsection 4.2.1.3 on scope of the EIR. See also FEIR Subsections 5.2.1.2 and 5.2.3.1 on establishing objectives.

The comment claims that the DEIR fails to analyze the "growth and development" of a locally-owned KWB Lands. Growth inducing impacts of the Monterey Amendment are discussed in Chapter 8 of the DEIR and Chapter 8 of the FEIR. KCWA's allocated share of SWP supplies

was reduced as a result of the Monterey Amendment and therefore it was assumed that it would not contribute to increase growth in Kern County. There is no evidence that the KWB Lands is as cited by the comment, “a switchyard for transactions between agribusiness and real estate interests in southern California.” See FEIR Subsection 16.2.10 on the KWBA and water marketing which summarizes sales from the KWB Lands. With the exception of the EWA, all water purchases have been to purchasers within the San Joaquin Valley; EWA purchases are not anticipated in the future. As stated on page 8-15 of the DEIR, neither the Department nor the contractors make local decisions regarding growth and where it will occur. Cities and counties in the contractors’ areas are responsible for considering the effects of their growth and land use planning decisions. See also FEIR Subsection 8.2.2.2.

## Response to Comment 30-44

The comment claims that the DEIR fails to analyze an alternative that would restore the KWB Lands to the State. The DEIR examined three no project alternatives which included a KFE operated for SWP purposes. It also rejected two alternatives that would have required operation of a KFE to meet environmental and other objectives. As described by the comment, one alternative would assume state ownership and operation to enhance dry-year reliability. The other would allow the KWB Lands to remain in local control subject to operational and financial criteria designed to maximize environmental benefits. At the time of the Monterey Amendment, the Department owned the KFE property. It had considered a number of options for the lands including the option of transferring the lands to local control. The intent of a State-owned and KWBA-owned KWB Lands was identical as far as land use-- to develop a water recharge and recovery facility, providing intermittent wetlands. At the time of the transfer there was no operation of the lands as a water bank, and no SWP stored on the property. While the Department and contractors could have chosen a broader project and objective such as a variety of uses of the bank, they did not and they were under no obligation to do so. See FEIR Subsections 16.2.2 and 16.2.5. See FEIR Subsection 5.2.3.1 regarding the fact that the EIR does not need to consider broader objectives. See also Response to Comment 30-44 in FEIR Chapter 11.

## Response to Comment 30-45

This response is to 10 questions asked within this numbered comment. For the most part, the questions asked involve neither environmental issues that need to be discussed in the DEIR nor environmental issues that relate to actions taken by the owners or managers of the KWB Lands, or they are outside the scope of the project description of the Monterey Plus EIR. Several questions ask about the sources of water, or how much water the KWB Lands has bought or stored or to whom and how much water the KWB has acquired or sold. The answers to some of these types of questions are presented in DEIR Appendix E. However, the Department provides information and comments to several of the questions below.

One question asks if the KWBA acquires and sells water, or if the member agencies acquire and sell water. When SWP water is scheduled and delivered to the KWB Lands on behalf of a KCWA member unit, the Department deals directly with KCWA, not the KWBA. The Department notes that SWP water cannot be sold except in the Turnback Pool, under contract amendments, and in certain circumstances to EWA. The Department does not track water that the KWBA acquires or sells from other sources. One question asks what the price is for KWB Lands' water sold to the EWA program. Information for the EWA water that the Department purchased can be found in the Bulletin 132 series. Additionally, the EWA program is a separate program under CALFED and one of its purposes is to acquire water assets south of the Delta.

See the discussion of EWA water in Responses to Comments 30-34 and 30-127 in FEIR Section 7.2. Another question asks whether the KWBA member agencies obtained SWRCB approval for changing the place or purpose of use of water stored in the KWB Lands. The Department is not aware of any SWRCB approval needed for storage of SWP water in the KWB Lands. The water is diverted from the Delta under existing water rights originally approved by the SWRCB. The place and purpose of use are consistent with the terms in those same water rights.

## Response to Comment 30-90

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-90 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in August 2004 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that the KWB study should be fully integrated into the EIR's impact assessment and the State operation of a KFE storage facility should be addressed in the No-Project Alternative. The impacts of the KFE property transfer are fully integrated into the EIR impact assessment in the specific resource categories in DEIR Chapter 7. The independent study in DEIR Appendix E is complementary and supplemental to that assessment. Operation of a KFE storage facility for SWP purposes is assessed in three No Project alternatives: NPA1, CNPA3, and CNPA4. See DEIR Chapter 11, including Subsection 11.2.6 for a discussion on why a KFE with trust alternative was not considered as one of the alternatives.

## Response to Comment 30-109

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-109 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in March 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented mentions the history of difficulties encountered by the Department before the transfer of the KWB Lands and notes the ease of development after the transfer, claims that the exchange was based on the relinquishment of paper entitlements, states that the KWB Lands is a significant factor in the Southern California water operations and planning, and expresses concern that water exports will increase during wet and dry years and that historical records should be assessed to contrast those effects with the baseline condition due to the KWB Lands.

See FEIR Subsections 16.2.1, 16.2.2.1, 16.2.4, 16.2.5, and 16.2.11. Growth inducing impacts of the Monterey Amendment are discussed in Chapter 8 of the DEIR and Chapter 8 of the FEIR. KCWA's allocated share of SWP supplies was reduced as a result of the Monterey Amendment

and therefore it was assumed that it would not contribute to increase growth in Kern County. There is no evidence that the KWB Lands is a significant factor in Southern California water operations and planning. See FEIR Subsection 16.2.10 on the KWBA and water marketing which summarizes sales from the KWB Lands. With the exception of the EWA, all water purchases have been to purchasers within the San Joaquin Valley; EWA purchases are not anticipated in the future.

## Response to Comment 30-124

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-124 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the PCL's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document states that DEIR does not address how the KWB Lands increases deliveries and promotes a growing water market. See FEIR Subsection 16.2.2 on how the Department was required to analyze the KWB Lands in light of existing environmental permits, and FEIR Subsections 16.2.8 and 16.2.11 on the KWB Lands and water marketing.

The impacts to exports for the water management options were addressed and discussed in relevant sections in DEIR Chapter 7. DEIR Table 7.1-1 shows the sections with impacts due to water management options, of which groundwater storage outside the service area is a part. However, except for Dudley Ridge WD, the participants of the KWB Lands are member agencies of KCWA and can store, use, and exchange SWP water within the service area of KCWA (Kern County). See FEIR Subsection 16.2.7.1.

## Response to Comment 30-125

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-125 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on an early draft of Chapter 9 Water Supply. Footnote 5 questions the assumed operations of the KFE in the No Project alternatives. The comment notes that the analysis of the KFE in the no project alternative relied on the Department's planned operation as noted in its 1990 environmental documents, and claims that a State-owned KFE alternative should have relied on the 2000 operations under the KWBA. See FEIR Subsection 16.2.6 for more on a state-owned KFE alternative. The Department relied on its own planned operation of the KFE since the alternative considered a State-owned operation, and not the operation of the existing KWB Lands under the KWBA. See also Response to Comment 30-125 in FEIR Chapter 15.

## Response to Comment 30-127

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-127 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the growth chapter, and states that DEIR must analyze the interaction between farming company Paramount, the KWB Lands and its storage partners, and water marketing opportunities such as those provided by the Environmental Water Account. See FEIR Subsections 6.2.1, 6.2.3, 6.2.5, 6.2.7, 6.2.8, and 6.2.10. See also Response to Comment 30-43.

## Response to Comment 30-129

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-129 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the growth chapter. It notes that data from McAlister Ranch Irrigation District's Initial Water Management Plan and other documents suggest that pumping to the KWB Lands from 1995 to 1998 was significant and that, "operation of KWB under Monterey Plus significantly raised ground water levels in the largest groundwater banking operation in the State" and claims that the Monterey Amendment facilitated increased groundwater banking. It also asks where the water placed in "these banks" came from, how much from the Bay-Delta and Friant Kern, and how have "large recoveries and refillings of this Bank affected demand for SWP and CVP diversions and will this demand increase as the state and local agencies pursue improvement s to banking and conveyance infrastructure."

As noted in DEIR Subsection 6.4.2.1, the hydrology from 1996 to 2005 was very wet, and pumping to groundwater storage projects did increase pumping from the Delta. DEIR Table 6-7 shows that the SWP allocated 100 percent of Table A amounts from 1996 to1999. However, the available increase in supply was not caused by the Monterey Amendment but by changes in hydrologic conditions (see FEIR Subsection 14.2.2.3 for pumping restrictions and Subsection 14.2.4 for operational conditions for Article 21 pre- and post- Monterey). With the exception of Dudley Ridge WD, all of the participants in the KWB Lands project could potentially store SWP water in their service area in other groundwater banking projects regardless of the KWB Lands. See FEIR Subsections 16.2.5 and 16.2.7 on operation of the KWB Lands and Subsections 16.2.8 and 16.2.11 on participants in the KWB Lands project and sources and recovery of water from the KWB Lands project. See FEIR Subsection 16.2.10 on the KWBA and water marketing which summarizes sales from the KWB Lands. With the exception of the EWA, all water

purchases have been to purchasers within the San Joaquin Valley; EWA purchases are not anticipated in the future. There is no evidence to show that the KWB Lands have been used to store water for SWP M&I contractors although other water banks in Kern County have been used for storage outside the service area by SWP M&I contractors. See FEIR Subsections 15.2.2 and 15.2.3.3 for increases in pumping due to the Monterey Amendment from water supply management practices, including storage outside the service area and regarding how most increases in SWP export pumping since the Monterey Amendment are not the result of the Monterey Amendment.

Sources of water delivered to the KWB Lands and recovery of that water is found in DEIR Appendix E. The cumulative effect of ground water activities is discussed in DEIR Chapter 10.

## Response to Comment 30-130

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-130 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the growth chapter, and identifies a number of reports which it states appear to contradict the conclusion of the DEIR that the DEIR concludes that a locally-owned KWB Lands storage facility has a minor effect on deliveries. See Response to Comment 30-129.

## Response to Comment 30-131

The Settlement Agreement established an EIR Committee to provide advice and recommendations to the Department in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. A number of interim documents were provided to the EIR Committee by the Department at intervals during the DEIR preparation process to facilitate input by the EIR Committee. Comment 30-131 is a comment on an interim document provided to the EIR Committee by Plaintiff representatives in July 2005 and was considered in the course of the preparation of the DEIR. It was resubmitted in January 2008 as an attachment to the Planning and Conservation League's comment letter on the DEIR (Comment Letter 30). Specifically, the interim document presented comments on the growth chapter, and asks that the Department analyze the historical record of all deliveries to the KWB Lands (including CVP water) rather than using the CALSIM modeling.

All water delivered to the KWB Lands is clearly shown in DEIR Appendix E, and that the Department analyzed the KWB Lands as outlined by the Settlement Agreement. The Department notes that it tracks SWP water delivered and recovered from the KWB Lands, and that sales of SWP water are not allowed under the long-term water supply contracts except as approved by the Department under Article 15(a) and the Turnback Pool. The Department does not regularly track non-SWP water that the KWBA stores in the KWB Lands as that water is under the rules and jurisdiction of other agencies, for example, Reclamation, or entities with Kern River water rights.

Regarding the comment's reference to analyzing all provisions of the Monterey Amendment which have provided flexibility in water management, the DEIR discusses in numerous places the effect of water supply management practices facilitated by the Monterey Amendment, including storage outside of a contractor's service area in groundwater storage programs in DEIR Subsection 2.5.2 (pre-Monterey) and Subsection 4.4.4 (post-Monterey). Flexible storage is also discussed in DEIR Subsection 4.4.4. DEIR Table 5-1 lists the water management options for the baseline and proposed project scenarios. DEIR Chapters 6 and 7 then discuss the impacts of these portions of the proposed project. See also FEIR Chapter 15.

## Response to Comment 30-132

The Settlement Agreement established an EIR Committee to provide advice and recommendations to DWR in connection with the preparation of the draft and final versions of the Monterey Plus EIR. The EIR committee included four SWP Contractor This response is to 12 questions asked within this numbered comment. Many of the questions asked involve neither environmental issues that need to be discussed in the DEIR nor environmental issues that relate to actions taken by the owners or managers of the KWB Lands, or are outside the scope of the project description of the Monterey Plus EIR. However, the Department provides information and comments to several of the questions below, as well as in FEIR Subsection 16.2.2.1, and DEIR Appendix E, especially the Facilities Development Plan Section V(C)(1) and Section VI(B)(2) which discusses the recovery of water from the KWB Lands.

One question asks how the KWB Lands may be used in coordination with other groundwater and conveyance facilities to maximize storage. The cumulative effect of the proposed project and other groundwater storage plans in the San Joaquin Valley are discussed in DEIR Section 10.1. Although the coordination of the KWB Lands and other Kern County groundwater facilities is outside the scope of the project description of the DEIR, the Department is aware that Semitropic Water Storage District, for example, has storage rights in both KWB Lands and their own groundwater project. Therefore, it is not uncommon for them to utilize these two resources to their benefit. The Department does not regulate groundwater, however, it does comment on CEQA documents pertaining to new groundwater storage programs within KCWA's service area if SWP water is going to be delivered to such programs.

One question asks about other exchange agreements resulting from the KWB Lands. See DEIR Appendix E, Section VI(A)(2). The Department does not regulate exchanges and transfers that are among the KCWA member units and within the KCWA service area. KCWA's long-term water supply contract allows for SWP water to be delivered through the turnouts that serve its member units and for use between/among the member units.

One question asks about costs for the various water sources stored. DEIR Appendix E Section VI(A)(1) discusses the water sources stored in the KWB Lands; types of water banked by year are noted in Section VI(B). Costs of Turnback Pool water are noted in Notices to Contractors which are found on the Department's website, http://www.swpao.water.ca.gov/notices/index.cfm. Section 215 water costs are outside the Department's area, but can be obtained from Reclamation. Please contact Reclamation's South-Central California Area Office at (559) 487-5063.

One question asks about the implementation of the water supply management practices. These are fully discussed in FEIR Chapter 15.

One question asks about water marketing and the KWB Lands. Trends in water marketing are outside the scope of the project description of the DEIR; however, see FEIR Subsection 16.2.11

on KWB Lands and water marketing. DEIR Section 2.5 discusses the water programs authorized by the Department prior to the Monterey Amendment. As noted there, the Department has had the authority to approve water sales, transfers, exchanges, and groundwater storage programs, and would have continued on a case-by-case basis, absent the Monterey Amendment. Additionally, groundwater storage trends are not only based on SWP water but also local supplies and local controls. However, water sold through water markets comprises only three percent of all water used in the State, and 22 of the State's 58 counties have adopted ordinances restricting groundwater exports (Public Policy Institute of California, "Who Should Be Allowed to Sell Water in California? Third-Party Issues and the Water Market," dated 2003).

One question asks the Department how the Article 18(a) change has affected agricultural contractor and water marketing or dry year transfers. See FEIR Chapter 13 for a discussion of the change in Article 18(a) allocation. Speculation by the Department of how agricultural contractors will use their water supplies is outside the scope of the project description of the Monterey Plus EIR.

The last question asks about the timing of the KWB Lands deliveries and the water supply management practices. The Department has addressed the impact of the water supply management practices and the timing of such deliveries, and its impacts to the POD in FEIR Subsection 7.2.2.2. See also Response to Comment 30-132 in FEIR Chapter 15.

## Response to Comment 31-1

The comment suggests that the Monterey Amendment transferred 1 million AF of water in an underground reservoir from the State to quasi-State ownership and changed the operating rules to allow for increased water exports from the Delta. See FEIR Subsections 16.2.2, 16.2.4, and 16.2.8. See also Response to Comment 31-1 in FEIR Chapter 4.

## Response to Comment 34-1

The comment presents the view of the transfer of the KWB Lands to the KCWA and how the KWBA operates. The comment states that the purpose of the transfer was to "[O}ne to force Kern County to give up a fixed portion of its share of State Water Entitlement for purchase by municipal users only; and secondly, as discussed in its documents, to make it available 'generally' to Kern Water agency farmers to dampen the affect of water cutbacks in the future. The comment also discusses the KWBA membership and states that Paramount Farming Company owns 48.6 percent of the KWB Lands through its control of Westside Mutual Water Company and 8.66 percent through its control of Dudley Ridge WD, and concludes that the KWB Lands cannot be considered local and/or under local control. Finally, the comment suggests that the State could not have foreseen that a private entity would monopolize such a valuable public asset and control operation of the water bank.

Use of the KWB Lands is discussed as a state owned or locally owned facility in FEIR Subsections 16.2.5, 16.2.6, and 16.2.7. The same land is involved for similar purposes – to store surplus water during years of abundant supply for extraction and use in dry years by developing a water recharge and recovery facility primarily for SWP agricultural contractors. As noted in "Agreement for the Exchange of the Kern Fan Element of the Kern Water Bank by and between the Department of Water Resources of the State of California and Kern County Water Agency" dated December 13, 1995, the exchange of the property was to be for the purpose of "the development, operation and maintenance of a project upon such Property, if legally and economically feasible, for the importation, percolation and storage of water in underground

aquifers for later extraction, transportation and use." The impacts of the transfer of the KFE are discussed in the DEIR in the relevant Sections of Chapter 7 and in Chapter 10. See also FEIR Subsections 16.2.1, 16.2.2, 16.2.3, and 16.2.4 for more on the transfer.

The Department does not monitor or regulate the use of SWP or any other water. As discussed in FEIR Subsection 8.2.2.2, the level of detail contained in the DEIR for growth-inducing impacts and reliability analyses is consistent with the general level of review required for the Monterey Amendment. Even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities, local water resources and local water use. The potential environmental impact of growth is subject to more detailed environmental review at the project level. Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Even if the Department had the authority to make such decisions at this level of detail, it is not timely or practicable for the Department to identify and monitor or regulate individual decisions made by local government or to establish general rules that would govern these decisions. These decisions are within the authority and control of and properly deferred to local decision-makers where specific projects can be more fully described and are ready for detailed analysis. This approach is consistent with the traditional legislative policy that fundamental decisions regarding land use and growth are made through the general planning process at regional and local levels. See FEIR Subsection 8.2.2.2. The Department's role in water reliability planning is discussed in FEIR Subsection 9.2.6.

As discussed in FEIR Subsection 16.2.8, the KWBA is a public agency subject to open meetings and other laws applicable to public agencies. As a public agency, it is subject to CEQA. The KWBA currently has public board meetings on the third Monday of each month at 7 a.m., at 1620 Mill Rock Way Suite 500, Bakersfield, California, http://www.kwb.org/main.htm. The KWBA includes its annual financial statements in the annual compliance reports that it submits to USFWS and DFG.

The nature of the management and membership of the KWBA and the relationships with its participants and surrounding land owners relate primarily to the KCWA entities and their share of use of the KWB Lands. For the most part, these issues are beyond the scope of this EIR because although they may public policy issues, they are generally not environmental issues. Economic or social effects of a project are not treated as significant effects on the environment unless they cause physical changes to the environmental. To the extent that these concerns relate to the environmental impacts of the transfer of the KWB Lands, they are covered in the EIR (see FEIR Subsections 16.2.5 and 16.2.7). To the extent that these concerns relate to each party's share or use of the project, including private parties, these are primarily social and economic issues that pertain to the contractual and other arrangements among water users in Kern County, and legislative issues that pertain to how water entities are formed and operated. See FEIR Subsection 16.2.11 for a discussion of the KWB Lands and the issue of water marketing. See FEIR Subsection 4.2.1.3 for more discussion on the scope of the EIR.

The following information is included in this FEIR to provide additional background and information to help the public and decision-makers understand the environment and context in which the Monterey Agreement and the Monterey Amendment were negotiated. The Kern Water Bank Authority was created to own, develop, operate, and manage the KWB. Its Member Entities were members of the KCWA and Dudley Ridge WD, the two water districts that collectively retired 45,000 AF of Table A amounts as part of the Monterey Amendment (see FEIR Subsection 16.2.4). Their ownership allocation in the KWBA mirrors their share of Table A that was retired (see Table 3 in DEIR Appendix E). Westside Mutual Water Company is a not a

public agency and the water company may be composed of members that are private corporations, including Paramount Farming. However California law permits mutual water companies to be a member of a joint power authority. As a water service provider to landowners within the Belridge Water Storage District and Lost Hills Water District, Westside Mutual Water Company was allocated Table A amounts which were retired and which gave it the right under the KWBA Joint Powers Agreement to have a similar share in the KWBA (see DEIR Appendix E, pages 13-15).

The KWBA operates the KWB Lands subject to the requirements of the Memorandum of Understanding Regarding Operation and Monitoring of the Kern Water Bank Groundwater Program (KWB MOU). This agreement was a prerequisite to the KWBA member entities' agreement to retire the 45,000 AF Table A amounts in exchange for the transfer of the KFE property from the Department for the member entities' development of a water bank. The KWB MOU parties include the KWBA, its member entities, and the Adjoining Entities (the districts surrounding the KWB Lands). The overall objective of the KWB MOU parties is that the "design, operation and monitoring of the Project be conducted and coordinated in a manner to insure that the beneficial effects of the Project to the Project Members [Member Entities] are maximized but that the Project does not result in significant adverse impacts to water levels, water quality or land subsidence within the boundaries of the Adjoining Entities." The adjoining entities include Buena Vista WSD, Rosedale-Bravo WSD, Kern Delta WD, Henry Miller WD and West Kern WD. The MOU prescribes various measures to protect water levels and water quality and establishes a Monitoring Committee which includes several basin stakeholders including the KCWA and all adjoining water districts (see DEIR Appendix E, pages 15-16).

Some of the information relating to these issues may also be included, as appropriate, in required CEQA documents such as the findings on impacts, mitigation measures and alternatives and any statement of overriding considerations. Some of the information relating to these issues may be appropriate to bring before the Director in the context of his decision of whether to continue to operate under the Monterey Amendment and the Settlement Agreement, or in the context of other decisions he makes as the Director of the Department of Water Resources. The comments received are part of the permanent record for this proposed project and will be forwarded, as appropriate, to the Director for his consideration. See FEIR Subsection 4.2.1.3.

## Response to Comment 34-2

The comment suggests that the impacts of the transfer of the KFE property must be evaluated in the DEIR including the possibility for the return of the KWB Lands to the various water districts for public agency use, with public agency oversight, so that the water can benefit all users rather than a few, or just one. See Response to Comment 34-1.

## Response to Comment 34-3

The comment presents a number of steps to achieve a goal of returning the KWB Lands to various water districts as intended for public control so that it can benefit all the water users. See Response to Comment 34-1.

## Response to Comment 34-4

The comment suggests that the KWB Lands were intended to broadly assist the various water districts and be equitably allocated within the districts, and suggest that the process must be

studied or allocation should be done in the manner as intended. See Response to Comment 34-1.

## Response to Comment 36-17

The comment expresses concern over the issue of privatization of the KWB Lands and the loss of public control over water storage areas that has lead, in effect, to ownership of a publicly held resource by private business interests and mentions a report called "Water Heist." The comment also suggests that the KWB Lands and other facilities made to store water will further reduce endangered species habitat. See Response to Comment 30-38. Economic or social effects of a project are not treated as significant effects on the environment unless they cause physical changes to the environmental. To the extent that these concerns relate to the environmental impacts of the transfer of the KWB Lands, they are covered in the EIR. See FEIR Subsections 16.2.3, 16.2.5, 16.2.6, and 16.2.7. To the extent that these concerns relate to who gets the use of the water, including private parties, and who benefits financially, these are primarily institutional, financial, social and economic issues that pertain to the contractual and other arrangements among water users in Kern County and legislative issues that pertain to how water entities are formed and operated. For the most part, these issues are beyond the scope of this EIR. However, the following information is included in this FEIR to provide additional background and information to help the public and decision-makers understand the environment and context in which the Monterey Agreement (and the Monterey Amendment) was negotiated. See FEIR Subsections 16.2.8 and 16.2.11. See also FEIR Subsection 4.2.1.3 for more discussion on the scope of the EIR and Subsections 5.2.1.2 and 5.2.3.1 for a discussion on the lead agency's role with regard to establishing objectives for the EIR. See also FEIR Subsections 16.2.1, 16.2.2, and 16.2.4 for the history of the transfer of the KFE property.

See FEIR Subsection 17.2.9 for a discussion of the KWB Lands and Endangered Species, Terrestrial Wildlife and Educational and Recreational Opportunities.

## Response to Comment 42-3

The comment suggests that the Integrated Regional Water Plan incorporate the KWB Lands. The Department notes that the California Water Plan does consider groundwater storage and conjunctive management, and such information is provided in the Department's Bulletin 160 by hydrologic region. The KWB Lands is included in the Tulare Lake Hydrologic Region. To provide input into the California Water Plan process, see: www.waterplan.water.ca.gov. Parts of this comment deal with issues beyond the scope of this EIR and with broader areas of water policy. See also FEIR Subsections 17.2.2 and 17.2.4.4.

## Response to Comment 42-8

The comment expresses concern that if the water bank was to be operated by the State, the State would receive political pressure from the southern California water agencies for additional water. Future development on the KWB Lands will involve actions taken by the KWBA owners/managers of the KWB Lands and future operations, installations, construction, repairs, and maintenance within the Recharge Basin Sector and the Other Water Banking Facilities Sector of the KWB Lands are governed by the HCP. The management of these facilities is described in the Annual Management Plans submitted to the wildlife agencies. The plans ensure that management activities comply with the HCP's Vegetations Management Plan, the Minimization of Impacts Requirement, and other measures prescribed by the HCP (see Section V.A.2.b in DEIR Appendix E).

There is no evidence that water from the KWB Lands is going to southern California. See FEIR Subsection 16.2.10 on the KWBA and water marketing which summarizes sales from the KWB Lands. With the exception of the EWA, all water purchases have been to purchasers within the San Joaquin Valley; EWA purchases are not anticipated in the future.

Parts of this comment deal with issues beyond the scope of this EIR and with broader areas of water policy. See also FEIR Subsections 17.2.2 and 17.2.4.4. See 17.2.7.1 on issues relating to growth-inducement and 17.2.10.3 on reducing exports.

## Response to Comment 42-11

The comment asks several questions about how the Department would handle solid waste and security issues if it was operating a KFE storage facility. The question does not relate to the proposed project, but rather to what the Department would do if one of the alternatives was implemented. The Department examines its operations to maintain adequate security and to reduce environmental impacts at all SWP facilities. Specific operation of any SWP facility is examined on a case by case basis.

## Response to Comment 42-12

The comment states that the reason for water banking was to replenish the local water table as the pumping costs rise exponentially to water table drop and that out of basin transfers ignore this fact. The comment also states that some transfers are to the north. The comment asks how one determines that water being sent to is not from the local water bank or has migrated from it. It also asks a question regarding rebate of a subsidy from Metro Bakersfield. See FEIR Subsections 16.2.5 and 16.2.7 for impacts of the KWB lands used as a water bank. See also FEIR 16.2.11 for water marketing and the KWB.

See also Response to Comment 42-12 in FEIR Section 10.3.

## Response to Comment 62-11

The comment suggests that the KCWA should not manage the KWB Lands because it is controlled by large agricultural businesses and mentions an article called “Water Heist.” See Response to Comment 30-38. The comment also requests clarification regarding the storage balance in the KWB Lands. As shown on Figure 13 of DEIR Appendix E, the KWB Lands storage reached close to 1 million AF in 2004.

The comment suggests that there should be legislation to prevent undeveloped land that is suitable for water recharge from being used for anything else and that it is the goal of the State to see that all citizens have enough water. This suggestion deals with issues beyond the scope of this EIR and with broader areas of water policy. See FEIR Subsections 17.2.2 and 17.2.4.4.

The comment also raises questions about the KWB Lands and endangered species and educational use. See FEIR Subsection 17.2.9.

## Response to Comment 64-12

The comment suggests that the transfer of the KFE property to the KCWA and then to a private entity is a violation of the water code, a violation of the SWP bonds, and is outside of the Department’s authority. See FEIR Subsections 16.2.2 and 16.2.4, and Subsection 4.2.1.3 on the scope of the EIR.

## Response to Comment 65-1

The comment expresses concern over the transfer and privatization of the KWB and believes it is a violation of the Public Trust Doctrine. See FEIR Subsections 16.2.5 and 16.2.8. As discussed in FEIR Subsection 14.2.2 on the Public Trust Doctrine, in California water uses are also subject to the Public Trust Doctrine which holds that certain resources are above private ownership and reside in the trust of government for the benefit of the People and that it is the duty of government to administer these resources to the highest public interest. The Department does not consider the transfer of the KFE property to be a violation of the public trust.

## Response to Comment 67-2

The comment refers to the transfer of the KFE property from State ownership and summarizes the land transfer details. The comment is noted. Also see FEIR Subsection 16.2.4 which clarifies the transfer of the KFE property in exchange for the 45,000 AF Table A retirement. The comment also notes that Kern County facilitated transfers of 13,000 AF of Table A contract amounts from agricultural users to M&I users, including M&I use in Kern County. This is correct and the DEIR discusses the transfers in Subsection 6.4.2. None of the transfers went to M&I use in Kern County

## Response to Comment 67-6

The comment is from the City of Bakersfield and expresses concern that the transfer of the KFE property to local control might not be working as it was originally planned and that other comments would be sent. No additional comments were received from the City of Bakersfield See FEIR Subsection 16.2.8 on the KWBA and arrangements with other entities. See also FEIR Subsection 17.2.5.8.

## Response to Comment 67-12

The comment questions the consequences if “Kern County Water Bank” and the Westside Mutual Water District sell “paper water” to Tejon Ranch and they build a community, what happens if there is a drought. There is no evidence that water from the KWB Lands is going to southern California. See FEIR Subsection 16.2.10 on the KWBA and water marketing which summarizes sales from the KWB Lands. With the exception of the EWA, all water purchases have been to purchasers within the San Joaquin Valley; EWA purchases are not anticipated in the future. See also FEIR Subsection 17.2.7.1 and 17.2.7.3 on growth-induced impacts and water supply reliability.

## Response to Comment 67-22

The comment discusses the view of reasons why the KWB was not developed as part of the SWP. See FEIR Subsections 16.2.1 and 16.2.2

## Response to Comment 67-23

The comment provides some historical perspective (from the comment writer’s point of view) of what went into the negotiations for the Monterey Agreement as it related to the KWB. See FEIR Subsections 16.2.1 and 16.2.2.

### Response to Comment 67-28

The comment requests clarification regarding the 45,000 AF of water put into the KWB Lands by agricultural contractors. See FEIR Subsections 16.2.2, 16.2.4, and 16.2.9.

### Response to Comment 67-34

The comment notes the relationship between the transfer of the KWB Lands and the retirement of 45,000 AF of Table A water by agricultural users; discusses the relationship of Paramount Farms, Westside Mutual, Tejon Ranch and Newhall Land and Farm with the KWB Lands; and states that there has been no water sold from the KWB Lands to Metropolitan Water District. See FEIR Subsections 16.2.4, 16.2.8, and 16.2.11.

### Response to Comment 67-35

The comment states that the KWB Lands has a memorandum of understanding with surrounding entities and that the storing participants can only recover from stored water that they put in the ground, and no more. Therefore, the comment declares that there is no "paper water." It is real water that is tracked by KCWA and the KWBA. See FEIR Subsections 16.2.4 and 16.2.11.

### Response to Comment 67-36

The comment states that the KWBA is a public entity which holds public meetings and whose records are available to the public. The comment also discusses the recreational and educational aspects of the KWB Lands. The comment also states that Dudley Ridge WD is a public entity. See FEIR Subsections 16.2.8 and 17.2.9.

### Response to Comment 67-37

The comment notes the relationship between the transfer of the KWB Lands and the retirement of 45,000 AF of Table A water by agricultural users; presents the view regarding some of the issues about why the Department transferred the KFE property; states that the transfer of the KWB Lands is not interim and states that the KWBA is a public entity. See FEIR Subsections 16.2.1, 16.2.2, 16.2.4, 16.2.8, and 16.2.9. See also FEIR Subsection 4.2.1.2 on decisions to be made by the lead and responsible agencies with regard to the Monterey Amendment.

### Response to Comment 67-38

The comment states that water put into and taken out of the KWB Lands is real and not "paper water." See FEIR Subsection 16.2.4.

### Response to Comment 67-39

The comment discusses the fact that as a result of the Settlement Agreement and consistent with the current use of the KWB Lands, the land is used as a water bank and cannot be used for development. The comment also states that the KWBA has operated the KWB Lands in accordance with environmental permits. See FEIR Subsections 16.2.7 and 16.2.10.

# 17. COMMON RESPONSES

# 17. COMMON RESPONSES

## 17.1 INTRODUCTION

A number of comments addressed common issues. Although each of these issues is discussed in FEIR Chapters 4-16, they are also addressed in this Chapter to provide a responsive common response. Each paragraph in a response taken from FEIR Chapters 4-16 has a reference at the end of the paragraph to the appropriate FEIR subsection where the issue is discussed. Where similar language or issues are raised in comments responded to in Chapters 4-16 the response to the comment may refer to the appropriate Chapter 17 response as well as the relevant subsection in the Chapter. These comment numbers are not included in this Chapter.

### Comments Addressed

This Chapter addresses the following comments: 2-1, 3-1, 4-1, 4-3, 5-1, 7-1, 9-1, 10-1, 11-8, 12-1, 14-7, 15-1, 15-4, 16-103, 17-11,18-1, 19-7, 20-1, 20-2, 20-3, 20-4, 20-5, 20-6, 20-7, 20-8, 20-10, 21-1, 21-2, 21-4, 21-5, 21-6, 21-7, 21-8, 21-62, 22-2, 22-3, 24-1, 24-2, 24-3, 24-4, 24-5, 25-1, 25-2, 25-3, 25-4, 25-5, 26-4, 26-8, 27-1, 27-2, 27-3, 27-4, 27-5, 27-6, 27-7, 28-1, 28-2, 28-3, 28-4, 29-1, 29-2, 29-3, 29-4, 29-5, 29-6, 29-7, 30-62, 30-153, 31-3, 31-9, 32-1, 32-2, 32-3, 33-1, 35-1, 35-2, 36-20, 37-1, 38-1, 39-1, 40-1, 40-2, 40-3, 40-4, 40-5, 41-1, 41-2, 41-3, 41-4, 42-1, 42-7, 42-9, 43-1, 43-2, 43-3, 43-4, 43-5, 44-1, 44-2, 44-3, 44-4, 44-5, 45-1, 45-2, 45-3, 46-1, 46-2, 46-3, 46-4, 47-1, 47-2, 47-4, 47-5, 47-6, 48-1, 49-1, 50-1, 51-1, 52-1, 52-2, 52-3, 52-4, 52-5, 53-1, 53-2, 53-3, 53-4, 54-1, 54-2, 54-3, 54-4, 54-5, 54-6, 55-1, 57-1, 57-2, 57-3, 57-4, 57-5, 58-1, 58-2, 58-3, 58-4, 59-1, 59-2, 60-1, 60-2, 60-3, 60-4, 61-1, 61-2, 61-3, 61-4, 61-5, 62-1, 62-3, 62-4, 62-7, 62-8, 63-1, 63-2, 63-3, 63-4, 63-5, 64-12, 64-24, 64-25, 64-26, 64-36, 65-2, 65-9, 65-10, 65-11, 65-13, 65-16, 65-17, 65-20, 65-21, 66-1, 66-2, 66-4, 66-6, 66-7, 66-8, 66-9, 66-10, 66-11, 66-12, 66-13, 66-14, 66-15, 66-17, 66-18, 66-19, 66-20, 66-22, 66-23, 67-3, 67-6, 67-7, 67-8, 67-9, 67-10, 67-11, 67-13, 67-14, 67-15, 67-16, 67-17, 67-18, 67-19, 67-20, 67-21, 67-24, 67-26, 67-29, 67-30, 67-32, 67-33, and 67-36.

572 e-mails were received that contained a form letter with similar or identical comments. Four of those e-mails were bracketed as representative examples of the e-mailed form letters: Letters 44, 52, 58, and 61. The individual comments in each of these letters are responded to in this chapter. All the other e-mail form letters are included as part of FEIR Appendix A and the responses are identical to the responses for Letters 44, 52, 58, and 61; therefore, no further responses are provided.

## 17.2 MASTER COMMENTS

### 17.2.1 Negotiations Process Before and After the Monterey Amendment

This response addresses the following comments: 24-2, 28-2, 29-2, 51-1, 63-1, 67-13, 67-16, and 67-21.

Some comments were critical of the process that led to the Monterey Agreement and urge the Department to follow a more open process with the decision-making resulting from this EIR. Some comments state that the Monterey Amendments would enable the increased transfer of

water from northern California to the south and from agricultural use to urban areas without sufficient public oversight and accountability.

Comments relating to the process followed or decision-making are generally not comments relating to an environmental issue resulting from the proposed project. However, this EIR provides some information and background on some of these issues so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. See FEIR Subsection 4.2.2.1

CEQA establishes a process that provides for public input at several points. The main points are the initial scoping and the DEIR. Additional opportunities are provided for responsible and trustee agencies. CEQA does not require public participation in the decision-making process. Whether or not public participation is required during an agency's decision-making process depends on the requirements of laws, regulations, and other rules relating to that agency's own process. Some agencies, such as boards and commissions and most local agencies are required to conduct their decision-making in public. Others, such as departments like the Department of Water Resources, have no similar requirements. See FEIR Subsection 4.2.2.1

The negotiations that led to the Monterey Agreement were conducted without public input. While some of the comments are critical of this process, it was not unusual and it was not illegal. Up until that time, discussions relating to the long-term SWP water supply contract amendments had never included public involvement. This was one of the issues that concerned the plaintiffs in *PCL v. DWR* and was one of the subjects of the Settlement Agreement which provides for public negotiations of permanent transfers of Table A amounts (Attachment C to the Settlement Agreement), and principles for public participation in project-wide contract amendments and contract amendments relating to Table A transfers between existing SWP contractors (Attachment D to the Settlement Agreement). Public Notices of Attachment C permanent Table A transfers have been published on the Department's website at the time of negotiations. Several transfers have occurred and the public has commented on some of the transfers. So far no Attachment D negotiations have occurred, but if they were, the Department also plans to notice them on its website. See FEIR Subsection 4.2.2.1.

### 17.2.2 Scope or Content of the DEIR

This response addresses the following comments: 21-2, 26-8, 29-1, 39-1, 41-3, 42-1, 42-7, 43-1, 44-1, 47-1, 47-2, 47-4, 47-5, 47-6, 48-1, 49-1, 51-1, 54-2, 62-1, 62-3, 62-7, 62-8, 63-2, 63-5, 64-24, 66-14, 66-22, 67-10, 67-11, 67-13, 67-21, 67-26, 67-29, 67-30, 67-32, and 67-33.

A number of comments raise issues that might not normally be required to be discussed in the EIR or issues that are not related to the proposed project or not related to CEQA. Some of these comments include suggestions that the EIR should address a number of issues, including: economics of the state, the responsibility of the state with regard to water distribution and equitable distribution of water; over committing water resources changes in stream flow and water quality in the Sacramento River, overuse of groundwater, groundwater quality issues and how groundwater should be managed; the connections between the groundwater aquifers of the state with surface water exports, state wide issues of water management including identifying areas with net producers and net users of water, considering the effect of global warming; transfers of water from the Sacramento Valley, watershed enhancement, statewide water conservation and efficiency, including treatment of wastewater, using more water efficient native plants, capturing storm water, not wasting water on areas that support uses that are not for edible crops, reducing evaporation of water from dams and reservoirs; retirement of farm land,

including fees on changing use of land from agricultural to urban development; on ownership of water rights and water facilities by private or public interests, openness and transparency of decisions and meetings regarding water supply; whether entities should be allowed to profit from selling water or water rights, who profits from the sales and whether there should be limits on the amount of profits; water supply limitations in droughts and how to consider them in water planning; problems with existing dams and whether more dams should be built; what constitutes a reliable water supply and whether criteria should be established regarding reliability of water supplies; different causes of problems in the Delta, including pollution, less available water because of fuel costs; increased fire potential and unemployment because firefighters have been laid off; forest fire management, where urban growth occurs and whether limitations should be place on where and how growth should occur, schemes that enrich the few at the expense of the public; limiting growth and population control; impacts on local economies, remediation of local water quality problems, editorial comments regarding the DEIR, such as over use of acronyms, relationship to integrated regional planning, the Department should initiate adaptive management.

Some of these comments are on social, economic and legal issues unrelated to the proposed project such as whether private corporations should be allowed to have water rights or whether owners of water rights should be allowed to sell water or water rights. Other subjects, such as legal authority and policy reasons for and against the Monterey Amendment or the KFE property transfer and related water policy actions, are related to the proposed project but generally are not environmental issues resulting from the proposed project and are outside the scope of the EIR. However, this EIR provides some information and background on some of these issues so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. To the extent that these issues are related to potential physical changes in the environment, they have already been included in the EIR. See FEIR Subsection 4.2.1.3.

Some of the information relating to these issues may also be included, as appropriate, in required CEQA documents such as the findings on impacts, mitigation measures and alternatives and any statement of overriding considerations. Some of the information relating to these issues may be appropriate to bring before the Director in the context of his decision of whether to continue to operate under the Monterey Amendment and the Settlement Agreement, or in the context of other decisions he makes as the Director of the Department of Water Resources. The comments received are part of the permanent record for this proposed project and will be forwarded, as appropriate, to the Director for his consideration. See FEIR Subsection 4.2.1.3.

### 17.2.3 Support or Opposition of the Proposed Project and Discussion of Decision-Making Process

This response addresses the following comments: 2-1, 3-1, 4-1, 4-3, 5-1, 7-1, 9-1, 10-1, 11-8, 12-1, 14-7, 15-1, 15-4, 16-103, 18-1, 20-1, 20-8, 21-7, 21-62, 22-3, 24-1, 24-2, 24-3, 24-5, 25-1, 25-5, 26-4, 26-8, 28-1, 28-4, 29-1, 29-7, 30-62, 30-153, 31-3, 31-9, 32-1, 32-3, 33-1, 35-1, 36-20, 37-1, 38-1, 39-1, 40-1, 41-1, 41-4, 43-1, 43-5, 44-1, 44-5, 45-1, 45-3, 46-1, 48-1, 49-1, 50-1, 51-1, 52-1, 52-5, 53-1, 54-1, 54-6, 55-1, 57-1, 58-1, 58-4, 59-1, 60-1, 60-4, 61-1, 61-5, 63-1, 63-5, 64-25, 64-26, 64-36, 65-9, 65-16, 65-17, 66-1, 66-2, 66-4, 66-10, 66-13, 66-15, 66-17, 66-18, 67-11, 67-14, 67-18, 67-19, 67-20, 67-21, and 67-24.

Some comments identify the commenter or the organization that wrote the comment. Some expressed support or opposition for the proposed project. Some comments state that the DEIR adequately discloses potential impacts and support continued implementation of the Monterey Amendment. Some of these comments summarize the benefits the commenter considers the Monterey Amendment achieved, including settling disputes over allocations, providing more flexibility in managing limited supplies, increasing rate stability and funding for local investment in water management programs, and helping to survive drought years despite increased water demands and increasing pressures on SWP operations. Some comments state undoing Monterey would have negative water supply, economic and environmental consequences. Some comments ask the Department to decline to certify the DEIR, to reject the Monterey Amendment and associated actions and/or to renegotiate the SWP contracts. Some comments state that the Department does not have the authority to execute the Monterey Amendment or transfer the KWB. Other comments state that the proposed project does not appear to have been negotiated in the public interest or that it is an unlawful gift of state property or that it is bad for the environment or that it is a violation of the public trust doctrine and does not allow the state to manage water in most beneficial way for all of the State's residents. Others urge the Department to implement an alternative that better serves California. Others state that the DEIR does not adequately disclose potential impacts and does not comply with *PCL v. DWR,* the Settlement Agreement or CEQA. Others state that the EIR review process took too long or did not meet with the intent of the Settlement Agreement. Others claimed that the EIR was and is an attempt to defend the *status quo.* Some comments state that they are concerned that their comments will be ignored and the FEIR be very close to the DEIR. Several comments raise questions about interim and final operation of the Monterey Amendment and refer to the Superior Court's Interim Implementation Order in *PCL v. DWR.* Other comments state that the DEIR does not adequately explain the "uses" of the EIR or ask the Department to specify how it will carry out its decision-making under CEQA.

The Court in *PCL v. DWR* stated that the Department "may" choose to address the issues raised in a completely different and more comprehensive manner. It did not say that the Department "must" address the issues differently. However, the Department has chosen to address the issues in a different and more comprehensive manner. See further discussion on this issue in FEIR Chapter 5, Subsections 5.2.2 and 4.2.2.2.2.

The Department has independently prepared, reviewed, analyzed and discussed all the issues raised in the EIR on the Monterey Agreement and other issues raised in the scoping meetings. In addition, the EIR has benefited from the advice and recommendations of the EIR Committee required by the Settlement Agreement. The EIR committee included four SWP Contractor Representatives and four Plaintiff representatives. Over 24 meetings were held, including a number of meetings to discuss input into the CALSIM II modeling to make it more useful for the DEIR. Both the contractor and the plaintiff representatives had the opportunity to provide input into the scope of the DEIR. Many changes were a result of input from the EIR Committee participants. See FEIR Subsection 6.3.2.2 for input from the EIR Committee on modeling, and Subsection 5.2.2 for changes made in the EIR. See FEIR Subsection 4.2.2.3.

As discussed in FEIR Subsection 4.2.1.2, the EIR process is specifically designed to objectively evaluate and disclose potentially significant adverse impacts of a proposed project, and to identify mitigation measures or alternatives that eliminate or substantially lessen a project's significant adverse impacts. An EIR must also identify those adverse impacts that remain significant after mitigation. As discussed in FEIR Subsection 4.2.1.3, the courts have stated that the EIR must describe the significance of each environmental issue that is raised by comments. It is not required to discuss all the economic, legal, social, and technological factors, or other benefits of the proposed project. While issues raised are issues the Department must

determine before it makes a decision and issues an Notice of Determination, they are not issues the Department must resolve in the EIR. See FEIR Subsection 4.2.1.2.

The court in *PCL v. DWR* found that the EIR prepared on the Monterey Agreement was inadequate. The Monterey Amendment incorporated the principles that were in the Monterey Agreement and it, along with the Settlement Agreement, is the proposed project of this EIR. The Department has prepared a DEIR on the proposed project which has been circulated, as required by CEQA, for public review. The DEIR included, as part of the proposed project, continued operation of the SWP under the Monterey Amendment. This FEIR responds to the comments received on the draft and clarifies and amplifies the information in the DEIR. The DEIR states on page 1-1 that this EIR will be used by the Department, as lead agency, and the contractors, as responsible agencies, to evaluate the environmental impacts of the proposed project and to decide whether to continue operating under the proposed project or to decide whether to implement one of the alternatives to the proposed project. The DEIR states that, "[A]s part of its overall consideration, the Department will also review legal economic and social impacts. Once the EIR is complete, the Department will consider all options available to it under the law. Upon completion and certification of this EIR, the Department will make written findings and decisions and file a Notice of Determination." In making its decision, the Department will consider the opinion in *PCL v. DWR*, the Superior Court's Order on remand in *PCL v. DWR*, and other appropriate legal sources. See FEIR Subsection 4.2.1.2.

## 17.2.4 Scope of Project

### 17.2.4.1 SWP-caused or SWP-related Impacts

This response addresses the following comments: 21-2, 24-3, 25-3, 26-8, 27-6, 28-3, 29-6, 32-1, 40-4, 46-4, 57-2, 64-36, 66-8, 66-9, 67-17, and 67-21.

Some comments raised issues beyond the scope of the Monterey Amendments, including issues related to operation of the SWP, problems related to the Bay-Delta in general or problems relating to land use and water supply.

This EIR examines changes resulting from the proposed project (the Monterey Amendment and the Settlement Agreement) and its potential environmental impacts. It is not an EIR on all the operations and impacts of the SWP or on the all of the problems regarding the Delta or relating to land use and water supply. The Monterey Amendment is an agreement between the Department and the SWP contractors primarily about how exported water that is available to the SWP is allocated and managed. The Department has and continues to export SWP water to the SWP contractors in compliance with all State and federal environmental laws and regulations. The Department recognizes that there are conflicts between the management of water supply and fisheries in the Delta and is actively participating in a number of programs that are focused on resolving those conflicts while benefiting the Delta ecosystem. The conflicts in the Delta between aquatic resources, particularly listed fish species, and water exports, would continue to exist even if there was no proposed project. As the Supreme Court pointed out in *In re Bay-Delta* (pages 1167 and 1168):

> The Court of Appeal erred also in failing to sufficiently distinguish between preexisting environmental problems in the Bay-Delta, on the one hand, and adverse environmental effects of the proposed CALFED Program. Under CEQA, the range of alternatives that an EIR must study in detail is defined in relation to the adverse environmental impacts of the proposed project…. The main thrust of the Court of Appeal's reasoning was that reducing Bay-Delta water exports would "be environmentally superior" because it would facilitate

> achievement of the ecosystem restoration component of the CALFED Program and thereby more effectively address the Bay-Delta's existing environmental problems. But those problems would continue to exist even if there were no CALFED program, and thus under CEQA they are part of the baseline conditions rather than program-generated environmental impacts that determine the required range of program alternatives.

This EIR on the proposed project presents a similar situation. This EIR does not need to address all of the environmental impacts that may be associated with operation of the SWP or to address all of the Delta's existing problems that existed before the Monterey Amendment. It only needs to study in detail the adverse impacts generated by the proposed project and mitigation measures and alternatives that address project-generated impacts. See FEIR Subsection 5.2.1.1.

### 17.2.4.2 Broader Project Objectives

This response addresses the following comments: 24-5, 25-5, 27-4, 28-3, 29-1, 32-2, 39-1, 40-3, 43-5, 46-4, 48-1, 49-1, 51-1, 54-2, 59-2, 62-4, 63-5, 64-36, and 67-17.

Some comments suggested the EIR consider alternative objectives and ways to manage the water resources available to the SWP that would balance contractors' and environmental objectives or allocate a portion of the water available to the SWP for environmental purposes.

As discussed in FEIR Subsection 5.2.1.2, the court in *PCL v. DWR* (page 920) found that the EIR on the Monterey Agreement was improperly prepared by a local agency and that the Department must prepare an entirely new EIR on the project as a whole. The court recognized that the Department might approach the environmental review of the project in a different or more comprehensive manner because of its statewide perspective and knowledge. See FEIR Subsection 4.2.2.2.

Neither the Court in *PCL v. DWR* nor the Superior Court's Order on remand, nor the terms of the Settlement Agreement suggests that the Department is obligated to change the basic approach to the SWP to require the Department to consider such broad objectives. Although CEQA requires an agency to consider mitigation measures and alternatives that would meet its project objectives, it does not require an agency to examine a project and objectives that are completely different from the one it has chosen to pursue. See DEIR Subsection 11.2.3 and FEIR Subsections 11.2.3 and 11.2.4 for more discussion on alternatives that were rejected as different projects with different objectives than those of the Monterey Amendment. See FEIR Subsection 5.2.1.2.

After independently considering and reviewing the original Monterey Agreement objectives, with advice from the EIR committee established by the Settlement Agreement, the Department determined to characterize the Monterey Amendment objectives as those listed on pages 4-1 and 4-2 and further described in Chapter 4 of the DEIR. These objectives are very close to the goals of the Monterey Agreement. See DEIR pages 3-3 to 3-4 and FEIR Subsections 4.2.2.2.3 and 5.2.1.1.

Although the Department is the lead agency, the Department cannot make a unilateral decision because the proposed project involves changes to a contract, i.e., the long-term water supply contract, and requires the concurrence of the other contracting parties. Even if the Department could unilaterally impose changes of the nature suggested by the comments or the Department and the contractors could mutually change the water supply contracts in a way that would allocate or leave more water for the environment, CEQA does not require the Department to

consider or make these changes within the context of this EIR. The Department has chosen in this EIR to keep the objectives limited to ones that deal with issues and conflicts between and among the Department and the contractors and leave resolution of broader issues relating to the health of the Delta and urban development to other established planning, legislative and regulatory processes. See discussion in FEIR Subsections 5.2.3.1 and 5.2.1.2.

Although the basic project purpose and objectives have not changed from the EIR on the Monterey Agreement (with the exception of those relating to the Settlement Agreement), the DEIR and this FEIR differ from the original EIR in many ways. The Department has addressed the issues in a completely different and more comprehensive manner and the DEIR reflects the updated and independent view of the Department as an agency with statewide knowledge and concerns. See the discussion in FEIR Subsections 5.2.2 and 5.2.1.2.

### 17.2.4.3 Substantial Change to SWP Contracts

This response addresses the following comments: 20-1, 21-1, 24-3, 25-1, 26-8, 32-1, 57-1, 64-36, and 66-17.

Comments stated that the proposed project represents the most substantial amendments to the SWP in the history of the system.

The underlying fundamental purpose of the Monterey Agreement and the Monterey Amendment is to resolve conflicts and disputes between and among the urban and agricultural SWP contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. One key objective of the Monterey Agreement and the Monterey Amendment is to facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies. The primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits. See FEIR Subsection 5.2.1.2.

The terms of the long-term water supply contracts, including the Monterey Amendment, do not determine how the Department will operate the SWP facilities to meet regulatory requirements, but determine how SWP supplies and costs are allocated among the contractors. The terms may also determine how exported water is managed and where SWP contractors might store SWP water (if it is to be stored) if they have been allocated sufficient SWP water to store after meeting current needs. To the degree that hydrologic and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. The Monterey Amendment cannot and does not change hydrologic conditions or regulatory requirements in effect at the time of export, including applicable permits and constraints to protect water quality and listed fish species. See FEIR Subsection 5.2.1.2.

The Department operated the SWP in accordance with the long-term water supply contracts for more than 30 years prior to the Monterey Amendment. The changes made to the long-term water supply contracts by the Monterey Amendment are probably the most substantial changes since the agreements were signed in the early 1960's. However, they do not change the basic purpose of the SWP which is to divert and store surplus water during wet periods and distribute it to 29 contracting agencies. The changes included in the Monterey Amendment, while significant for the contractors and the Department, do not "fundamentally change" the SWP's "essential mission nor its statewide environmental accountability." The water available to the SWP continues to be delivered to the same urban and agricultural contractors and the SWP

continues to operate in accordance with environmental regulatory constraints, including requirements for water quality and endangered species protection. The KWB Lands are to be used by KWBA as a locally-owned water bank for the same basic purpose as the state-owned water bank proposed for that land before the transfer – to store surplus water for water users during years of abundant supply for extraction and use in dry years and subject to environmental use permits which regulate the terrestrial impacts of the use of the lands for this purpose. See FEIR Subsection 5.2.1.2.

The SWP designates water for environmental purposes before allocating water to the contractors. DEIR Subsection 6.2.3 lists the considerations that go into allocations to contractors. Prior to the allocations to contractors, the Department evaluates the expected Delta conditions for the year, schedules its operations to assure adequate flow and temperature compliance on the Feather River, and provides for sufficient water to meet all applicable Delta constraints in conjunction with export pumping operations. In addition, the SWP provides water to meet recreation, fish and wildlife obligations of the SWP. After providing for these environmental requirements, water is allocated to the contractors. Ongoing conditions and activities are part of the "environment" in which the proposed project will operate and may affect the magnitude of impacts of the proposed project on the environment. Changing conditions, such as changes in demand, demand reduction, climate change and other hydrological conditions, and environmental constraints can be characterized as a change in future conditions under which the proposed project will operate. The proposed project does not cause these changes to occur. These ongoing and changing conditions and their effect on the proposed project or the proposed project's effect on them were discussed in the DEIR in relevant Sections of Chapters 7 and 10. The proposed project would not result in added Delta diversions above levels permitted at the time of diversion. Changing conditions may result in less water available to the SWP for export and, therefore, fewer impacts than those disclosed in the DEIR. See FEIR Subsection 6.2.2.2 on changing conditions. See also FEIR Subsection 14.2.3 on types of water and demand and FEIR Subsection 7.2.2.1.3 on environmental compliance. See FEIR Subsection 5.2.1.2.

### 17.2.4.4 Department's Role in Water Policy

This response addresses the following comments: 24-5, 25-5, 26-8, 32-2, 39-1, 40-3, 44-4, 44-5, 46-4, 47-4, 48-1, 49-1, 52-4, 52-5, 54-2, 58-3, 58-4, 59-2, 61-4, 61-5, 62-3, 62-7, 62-8, 66-14, 67-26, and 67-29.

Some comments stated that the DEIR should have considered a broader range of alternatives including increased conservation, recycling and other local water system enhancements; Department-mandated best management practices to reduce urban demand for water; reduced diversions or exports from the Delta; and allocation of water for Delta and fisheries benefits. The DEIR considered these issues, but concluded that the Monterey Amendment was not an appropriate tool for mandating these types of changes. These suggested changes were rejected as alternatives because they did not meet the project objectives. They are not alternatives to the proposed project, but rather different projects with different objectives designed to address issues related to operation of the SWP as a whole or to address issues only tangentially (or not at all) related to the SWP or the Monterey Amendment. See FEIR Subsections 5.2.1.2 and 11.2.4.

However, the DEIR does not avoid the demands facing the State and the Delta either with regard to growth and water availability (see Chapters 8 and 9 on Growth and Water Reliability in the DEIR and the FEIR), with regard to the stresses facing the Delta (see Section 7.3 in the DEIR and Section 7.2 on fisheries in the FEIR) or with regard to challenges posed by climate

change (Chapter 12 in the DEIR and Chapter 12 in the FEIR). Application of the Monterey Amendment is not inconsistent with other water policy actions. As stated in FEIR Subsection 5.2.1.2, the primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits. Physical, legislative, administrative or judicial changes that affect water supply or benefit the environment may impact how the Monterey Amendment is applied. See FEIR Subsection 11.2.4.

As discussed in FEIR Subsection 8.2.2.2, although the Department does not have statutory authorization to establish mandatory requirements regarding water reliability and growth, it supports local and regional water planning and conservation efforts through statewide planning and through grants and local assistance programs. Demand reduction and water conservation strategies are important tools in water management planning and the Department is involved in a number of legislative and administrative actions designed to provide a regional or statewide approach to these strategies. See DEIR pages 11-5 through 11-7. The Department is taking a leadership role and is actively involved in many of these efforts. See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection. As discussed above, such measures are not alternatives to the Monterey Amendment and implementation of such measures would not be affected by the Monterey Amendment. See FEIR Subsection 11.2.4.

See also FEIR Subsection 17.2.5.9 for more discussion on demand and 17.2.10.2 on why suggestions to reduce demand were rejected as alternatives to the proposed project.

## 17.2.5 Changes in Delivery and Demand

### 17.2.5.1 Baseline

This response addresses the following comment: 64-36.

Prior to operation of the Monterey Amendment, the SWP was an ongoing activity operating under the pre-Monterey SWP long-term water supply contracts. In addition, the SWP had operated under the Monterey Amendment for close to seven years at the time the NOP was published for this EIR (2003). Therefore the DEIR analyzes the impacts for two time periods. The first was historical and covered the period from 1996 to 2003 (present); the second was from 2003 to 2020 (future). The baseline for both time periods is 1995. The total change from 1995 to 2020 is evaluated to disclose the full impacts of the proposed project as compared to the 1995 baseline. The baseline for 1995 was actual conditions at that time. The Department chose to use a “continuing” scenario for the proposed project and the alternatives, including the no project alternatives, in the DEIR because the Monterey Amendment and the Settlement Agreement are more analogous to a plan that unfolds over several decades than to a construction project that occurs at a particular time. Thus the baseline for the Monterey Plus EIR will be continued operation of the SWP in accordance with the long-term water supply agreements, but adjusted to include certain specific events that are expected to occur over time that are not related to the Monterey Amendment and the Settlement Agreement. These assumptions or events are full Table A requests in 2020 and several Table A transfers and water supply management practices that were not the result of the Monterey Amendment. The Department chose to include these assumptions in the baseline because it considered them independent of the Monterey Amendment and because it considers this approach to be helpful to the public and decision-makers so that they can compare the proposed project and the

alternatives to the baseline and then to each other. The Department believes this approach is consistent with the CEQA Guidelines and case law on this subject. See FEIR Subsection 6.1.2.2.

Environmental conditions for Delta fisheries have declined since the baseline was established and environmental constraints which were in place at the time the baseline was established have changed. However, the same operating constraints are included in the proposed project scenario and all the other alternatives including the no project alternatives. See FEIR Subsections 6.3.2.1 and 6.3.2.3. As discussed in FEIR Subsections 17.2.6.1 and 17.2.6.2, The DEIR updates the discussion of Delta fisheries and actual and potential regulatory changes. A revised baseline would not change the comparative differences between the proposed project and alternatives. To the extent that more stringent restrictions are placed on SWP export operations from the Delta, impacts on the Delta would be reduced. See the discussion in FEIR Subsections 7.2.2.1 and 7.2.2.3 on the effect of regulatory environmental constraints and in FEIR Subsection 6.3.2.3 on the place of regulatory environmental constraints in the CALSIM analysis. The Department chose not to include the effects of climate change in either the baseline or proposed project scenarios. Instead, a separate analysis of its effects was made and included in Chapter 12 of the DEIR. See FEIR Subsection 6.1.2.4.

### 17.2.5.2 Ongoing Conditions

This response addresses the following comments: 19-7, 21-62, 26-8, and 67-21.

Some comments stated that the DEIR should have analyzed the effects of the proposed project on ongoing conditions and activities. Examples of ongoing conditions and activities include water conditions and water management programs in the northern Sacramento Valley and water banking activities in Kern County. See FEIR Subsection 6.2.2.

Ongoing conditions and activities are part of the environment in which the proposed project will operate and may affect the magnitude of impacts of the proposed project on the environment. These conditions and their effect on the proposed project or the proposed project's effect on them were discussed in the DEIR. The DEIR did not identify any significant impacts of the proposed project on ground water or surface water in the Sacramento or San Joaquin Valley outside of the Delta. The Department recognizes, however, that current and future operations and activities of the SWP and its contractors may have an impact on or be affected by ongoing conditions and activities in these areas. Some of these activities include the Sacramento Valley Water Management Plan (Phase 8), the Yuba County Water Agency transfer of water, the Sacramento Valley Integrated Water Plan, and various efforts by SWP contractors and others to purchase Sacramento Valley water. These projects and activities may affect the environment and the effects are discussed in relevant environmental and planning documents. To the extent that there is a relationship of the environmental effects of these projects and the Monterey Amendment, it is discussed in Chapter 10 of the DEIR and Chapter 10 of this FEIR. See FEIR Subsection 6.2.2.1.

### 17.2.5.3 Changing Conditions Due to Hydrologic and Climate Change

This response addresses the following comments: 19-7, 21-5, 21-62, 24-4, 25-4, 26-8, 29-4, 32-2, 44-1, 62-1, 63-4, 65-2, 65-20, 66-6, and 67-21.

A number of comments stated that the DEIR failed to properly consider the impact of observed and predicted climate change and altered hydrologic conditions in California as they affect the

EIR analyses and the operation of the SWP with respect to the Monterey Amendment. See FEIR Subsection 6.2.2.

As discussed above in FEIR Subsection 17.2.4.3, the primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted limits. The terms of the long-term water supply contracts, including the Monterey Amendment, do not determine how the Department will operate the SWP facilities to meet regulatory requirements, but determine how SWP supplies and costs are allocated among the contractors. The terms may also determine how exported water is managed and where SWP contractors might store SWP water (if it is to be stored) if they have been allocated sufficient SWP water to store after meeting current needs. To the degree that hydrologic and regulatory conditions permit, the Department will pump available water from the Delta to meet operational and contractor needs. The Monterey Amendment cannot and does not change hydrologic conditions or regulatory requirements in effect at the time of export, including applicable permits and constraints to protect water quality and listed fish species. See FEIR Subsection 5.2.1.2.

Hydrologic change and climate change can be characterized as a change in future conditions under which the proposed project will operate. The proposed project does not cause these changes to occur. However, these future conditions have the potential to influence the "environment" in which the proposed project operates and may affect the magnitude of future impacts of the proposed project on the environment. These changes are discussed in FEIR Subsection 6.2.2 and below. See also FEIR Chapter 12 on Climate Change.

The analysis for the proposed project in the DEIR (Chapter 6) evaluates the allocation of water that is available each year under a full range of hydrologic conditions that show what supplies would be available to which contractors in any given year type. To the extent that climate change alters hydrologic conditions, including precipitation patterns, snowmelt runoff and timing, and reservoir storage efficiency, there will likely be less water to allocate in most years. The modeling studies in the DEIR compare the proposed project and alternatives to the baseline to estimate what might happen under certain conditions. The analysis of the proposed project evaluates the full range of potential supply availability, including very dry and wet years, and analyzes the impacts. Tables A-4a through A-6f of DEIR Appendix F include quantified impacts of climate change as part of the CALSIM analysis of the revised allocation methods, Table A transfers, and Table A retirement. The tables indicate how deliveries would be affected by climate change in the five hydrologic year types evaluated in the EIR. See FEIR Subsection 6.2.2.2.

One effect of climate change could be a decrease in average annual supplies given the current configuration of the SWP. Although supplies could decrease, demands are likely to continue to increase. See discussion in FEIR Subsection 14.2.2.3. That effect would be reflected in more dry and critically dry years, year types that are fully analyzed in the EIR, resulting in less water to allocate. Another effect of climate change would be a predicted increase of the sea level affecting the Delta. If sea level rise were to further limit exports beyond the effects of other hydrologic influences, such as by requiring greater releases of reservoir water to maintain Delta water quality, there could be even less water to allocate. See also DEIR Chapter 12, Climate Change, where the effects of climate change on water allocations are discussed in more detail, especially the discussion in Section 12.8. See also Chapter 12 of this FEIR on Climate Change. Water supplies available for allocation may decrease in future years for other reasons, including regulatory controls that result in reductions in Delta exports. See FEIR Subsections 7.2.2.1.3 and 6.2.2.2.

Other than the amount of water that would be allocated in any given year, the analysis of how these changes affect the SWP would not change. While there would be more years of lower available water supply, the allocation procedures remain the same. The only impact on the Delta from the Monterey Amendment comes from slightly increased average Delta exports attributable to the water supply management practices, particularly storage outside the service area. One of the results of more dry and critically dry years is that many of the impacts of the water supply management methods are likely to decrease as well. Although the impacts of the proposed project may decrease in the future below those levels evaluated in the EIR, the magnitude by which impacts would decrease and the rate of such decreases are not readily predictable. See FEIR Subsection 6.2.2.2.

Future impacts on the Delta would likely be less than those predicted in the DEIR because there would be fewer years in which San Luis Reservoir would fill, there would be fewer opportunities to pump water for programs such as storage outside of a contractor's service area, and the SWP contractors would realize fewer water supply benefits of the proposed project. Reduced supplies from the Delta might result in more use of the flexible storage provisions relating to Castaic Lake and Lake Perris. However, the analysis for these provisions analyzes the worst case scenario, so no further analysis is necessary. See also FEIR Chapter 15 and Chapter 7.2.2.1.3 for more information on impacts of the water supply management practices on the Delta. See FEIR Subsection 6.2.2.2.

In effect, the EIR overstates the impacts of the water supply management methods of the proposed project on the Delta under scenarios where less water is available to be allocated by the Department due to climate change, loss of Delta export capacity, dry hydrology, increased regulatory constraints, or related factors. In addition, many of the impacts of the water supply management methods have been quantified during a period when contractor requests have been less than full Table A, thereby allowing banking of some of their water supplies, and thus impacts may be overestimated for future conditions. See FEIR Subsection 6.2.2.2.

EIRs are expected to evaluate impacts that are reasonably foreseeable. The DEIR may overstate the amount of water that is available for allocation to the SWP contractors because current regulatory constraints on Delta export pumping are more stringent than the 2003 conditions used in the DEIR and future SWP deliveries are likely to be reduced compared to 2003 conditions. If the DEIR overestimates deliveries, the consequence is that it also overestimates environmental impacts. In an environmental disclosure document such as an EIR, it is better to overstate than to understate the potential impact so that the public and decision-makers can see the full environmental extent of their decisions. See FEIR Subsection 6.2.2.2.

Some comments appear to express a concern that local governments and other decision-makers might rely on the EIR delivery estimates in determining the reliability of SWP water. Overstating the amount of water available could be a problem in documents that are relied upon for determining water reliability. The values in this EIR analysis should not be used to estimate current available SWP water or the reliability of future deliveries. There are other tools that are intended to help determine the reliability of water such as Urban Water Management Plans and the Reliability Report released by the Department. See FEIR Chapter 9 on water supply reliability. See also FEIR Subsection 6.2.2.2.

### 17.2.5.4 Article 21 Changes "Surplus Water for Permanent Development"

This response addresses the following comments: 20-7, 21-5, 24-3, 25-3, 28-2, 28-3, 29-5, 32-1, 32-2, 44-3, 45-3, 51-1, 52-3, 54-4, 57-1, 60-3, 61-3, 67-16, and 67-17.

Comments claim the Monterey Amendments mislead the public by renaming or redefining Article 21 water. Several comments claim that elimination of the priorities for Article 21 water have allowed M&I contractors the opportunity for urban growth and that the new Article 21 allocation procedures under Monterey increased export pumping from the Delta. Other comments claim that the elimination of Article 21(g)(1) ends a prohibition on using surplus water for permanent development

## What is Surplus Water?

The term "surplus water" found in Article 21 of the SWP long-term water supply contracts has had a very specific meaning under these contracts, pre- and post- Monterey Amendment (see DEIR Subsections 2.5.4 and 4.4.1). It means "…project water available as determined by the State that is not needed for fulfilling contractors' annual [Table A] deliveries as set forth in their water delivery schedules furnished pursuant to Article 12 or for meeting project operational requirements, including storage goals for the current or following years." Such water is always surplus to the needs of the Delta, areas of origin, and other in-basin needs, including environmental or other regulatory requirements. When such water reaches the Delta it may be exported by the SWP and subsequently classified as Article 21 (sometimes called "surplus water") supply. See FEIR Subsection 14.2.1.

Article 21 water is one of more than 50 types of water classified on average by the Department for recovering costs and accounting for water under SWP operations. Multiple classifications of water are required to reflect different priorities for conveyance and storage, sources, purposes, ownership, and cost allocations. Article 21 water is an intermittent and unpredictable water supply. If San Luis Reservoir fills and other SWP storage facilities reach target levels, all SWP needs and regulatory requirements are being met, the Delta is in excess conditions and the SWP is permitted to continue pumping at rates that exceed current Table A demands, the Department will announce the availability of additional water, on a daily or weekly basis under Article 21. Contractors may then request delivery of Article 21 water when it is available if they can use or store the water. This water supply is intermittent and can be discontinued at any time if conditions warrant (see DEIR pages 2-6 and 6-5). See also FEIR Subsections 14.2.1 and 14.2.3.

The pre-Monterey Article 21 listed several types of Article 21 water including "scheduled surplus water," a kind of water that SWP contractors were asked to schedule five years in advance because SWP demands were well below what the SWP could normally deliver. Shortly after initial execution of the contracts, Article 21 was amended to clarify that this surplus water would be offered first for agricultural and ground water replenishment purposes. At that time, language was added that states "[I]n providing for the delivery of surplus water pursuant to this article, the State shall refuse to deliver such surplus water to any contractor or non-contractor to the extent that the State determines that such delivery would tend to encourage the development of an economy within the area served by such contractor or non-contractor which would be dependent upon the sustained delivery of surplus water." In 1974, this language was placed in section (g) of Article 21. Later, Article 21 was amended to include a category of water which could be called "extra surplus water" which was intermittent and unpredictable and could not be scheduled in advance. Because "extra surplus water" was included in Article 21, Article 21(g)(1) was also applicable to this water supply. See Chapter 14 of the FEIR for further discussion of Article 21. See FEIR Subsection 9.2.2.

The Monterey Amendment eliminated the agricultural first shortage in Article 18(a) so that all shortages were allocated proportionally to all contractors. It deleted the provisions for "scheduled surplus water" and renamed "extra surplus water" to "interruptible water" which is

offered on an interruptible basis if available, and allocated proportionally based on Table A amounts (when requests are greater than the supply). The Monterey Amendment also deleted Article 18(b) and several provisions relating to scheduled surplus water, including Article 21(g)(1). See FEIR Subsection 9.2.2.

### *Article 21(g)(1) – economy dependent on sustained delivery*

Article 21(g)(1) states: "In providing for the delivery of surplus water pursuant to this article, the State shall refuse to deliver such surplus water to any contractor or noncontractor to the extent that the State determines that such delivery would tend to encourage the development of an economy within the area served by such contractor or noncontractor which would be dependent upon the sustained delivery of surplus water." See FEIR Subsection 9.2.5.2.

Article 21(g)(1) was designed to prevent the establishment of permanent agricultural crops based on Article 21's provision for delivery of scheduled surplus water and it was considered reasonable to delete it from the contracts as part of the Monterey Amendment when the "scheduled surplus water" provisions were deleted. Because scheduled surplus water had not been available for about nine years prior to the Monterey Amendment it no longer made sense to ask SWP contractors to schedule delivery of that classification of water monthly five years into the future. Because unscheduled (interruptible) water was infrequently available in that same period (1987 to 1995), it was unlikely that anyone thought that intermittent Article 21 water would be used to support development of an economy in agricultural or M&I areas. See FEIR Subsection 9.2.5.2.

Ultimately, incorporating Article 21 water into the assessment of water supply reliability is a local decision based on specific local circumstances and facts. Although the Department is aware of storage of Table A and Article 21 water which may lead to additional local development due to the drought "buffer" from additional stored supplies, the Department is not aware of any local water supplier or local governmental agency that relies upon "the sustained delivery of surplus water" to support the development of a local economy. See FEIR Subsection 9.2.5.2.

### *Article 21 and urban growth*

Several comments claim that elimination of the priorities for Article 21 water has allowed M&I contractors the opportunity for urban growth. The growth-inducing impacts of the proposed project are discussed in Chapter 8 of the DEIR, and clarified and amplified in Chapter 8 of the FEIR. The Department agrees that the Monterey Amendment may have led to increases in delivery of Article 21 water for some M&I contractors. DEIR Tables 6-14 through 6-25 show changes in average annual deliveries of both Table A and Article 21 deliveries in different water-type years due to the altered allocation procedures and permanent Table A transfers. See FEIR Subsection 14.2.5.1.

### *Article 21 and Delta pumping*

Several comments indicate that the new Article 21 allocation procedures under Monterey increased export pumping from the Delta. The Monterey Amendment Article 21 allocation procedures have not influenced total deliveries south of the Delta (i.e. Banks pumping) in comparison to the baseline. As noted previously, the SWP contractors had access to Article 21 water prior to the Monterey Amendment. The new allocation procedures for south of Delta SWP contractors have merely shifted the percentage distribution of Article 21 deliveries between the agricultural and M&I contractors (North Bay Article 21 deliveries are insignificant). See FEIR Subsection 14.2.5.2.

The only provisions of the Monterey Amendment that have the potential to increase pumping from the Delta are the water supply management practices. The increased amounts of water delivered to the SWP contractors as a result of the water supply management practices are primarily Table A amounts, but may include other types of water, including Article 21 water. See FEIR 17.2.5.6.

### 17.2.5.5 Article 18

This response addresses the following comments: 21-5, 24-4, 25-3, 25-4, 27-4, 28-2, 28-3, 28-4, 29-5, 32-2, 39-1, 44-4, 45-1, 48-1, 51-1, 52-4, 54-4, 57-1, 58-3, 60-3, 61-4, 66-20, 67-16, 67-17, and 67-18.

See FEIR Subsection 9.2.2 for a discussion of the terminology relating to Table A amounts, Article 18(b) and Article 21, including Article 21(g)(1). See FEIR Subsection 9.2.3 for a discussion of the shift from using firm yield to current delivery probability for water supply planning. See FEIR Subsection 9.2.5 on the elimination of Article 18(b) and Article 21(g)(1). See Subsections 9.2.4 and 9.2.6 which discuss reliability planning. See FEIR Subsection 9.2.1 for comments outside the scope of the EIR. See FEIR Chapter 13 on Article 18 and FEIR Chapter 14 on Article 21. See FEIR Chapter 8 for a discussion of the growth inducing impacts of the proposed project.

Some comments support the changes in Article 18(a) as providing an equitable solution to disputes among the SWP contractors. Others are critical of the change and suggest that it still leave imbalances among the contractors. Some comments claim that if Article 18(b) were implemented and Article 21(g)(1) were enforced, there would be more water left in the Delta. Several comments suggested that invocation of Article 18(b) should result in total annual SWP deliveries through Banks Pumping Plant of around 2 million AF, and that the extra unused water and capacity could be used as additional water for environmental purposes. Other comments suggest that elimination of Article 18(b) removed a provision that could empower the Department to reduce project Table A amounts to reflect the “safe yield” of the project. See FEIR Subsection 13.2.2.

#### Changes in Article 18(a)

Prior to the Monterey Amendment, the long-term water supply contracts contained provisions specifying how the Department could curtail water to contractors during a temporary or permanent shortage of water supply. Article 18(a) specified that reductions for agricultural use could not exceed 50 percent in any one year nor exceed an aggregate limit of 100 percent in any series of seven consecutive years before reducing water deliveries for other purposes and that if additional reductions were necessary, they were to be allocated proportionately among all contractors. In the event the Department declared a permanent shortage under Article 18(b), the Department would proportionally reduce Table A amounts so that the sum of the Table A amounts equaled the reduced SWP minimum yield. See FEIR Subsection 13.2.1.

The original 1960's plan for the SWP was to build storage dams and reservoirs upstream of the Sacramento-San Joaquin Delta that, in conjunction with facilities to transport water across the Delta, could develop sufficient water to deliver a “minimum SWP yield” to all contractors, year-in and year-out except for certain few and infrequent critically dry years. Through the 1980's, with rising contractor demands and increased environmental needs, it became more difficult for the SWP to deliver the maximum contract water supplies. In addition, the drought of 1987 to 1992 sharply reduced SWP water supplies. During 1987, 1988, and 1989, supplies remained low through the early part of the year, and the Department initially applied the Article 18(a) shortage

provision and imposed allocation reductions on deliveries for agricultural use. From 1990 to 1993, SWP water supplies were inadequate to meet contractors' requests and the Department imposed reductions in contractors' allocations in accordance with the provisions of Article 18(a). See FEIR Subsection 13.2.1.

The limited supplies available during the drought highlighted the differences between the views of the Department, M&I contractors, and agricultural contractors on interpretation and application of SWP contract shortage provisions. Some agricultural contractors argued that the Department must invoke Article 18(b) to eliminate the SWP allocation disparities or face the possibility of judicially mandated Article 18(b) invocation. If all contractors' Table A amounts were reduced proportionally as would be required under Article 18(b), the amount of water to be pumped as Table A water would be reduced. However, the total amount of water pumped would remain about the same. In some years, due to higher flows in the Delta, more water would be available for pumping beyond the amounts needed to meet the reduced Table A amounts. This extra water would then go first to agricultural users under Article 21. The M&I contractors were concerned that the overall result of implementing an Article 18(b) reduction in Table A amounts and following the then-existing contract provisions on extra water availability would be a shift in water deliveries from urban users to agricultural users. While the water shift would favor agricultural users, the majority of costs would still be borne by the urban users. As a result, some urban contractors might file a lawsuit challenging a decision by the Department to implement Article 18(b). See FEIR Subsection 13.2.1.

The Monterey Amendment revised Article 18(a) so that whenever the supply of Table A water is less than the total of all contractors' requests, the available supply of Table A water is allocated among all contractors in proportion to each contractor's annual Table A amount. The Monterey Amendment also eliminated Article 18(b). The reasons for changes to the long-term water supply contracts, including the reason for eliminating Article 18(b), are not described in the Monterey Agreement. However, once the agriculture first shortage provision was eliminated, Article 18(b) was no longer needed to protect agricultural water users from excessive shortages. With the elimination of the agricultural first shortage provisions, it no longer mattered whether a shortage was a temporary one or a permanent one, since the allocation of the available supply would be the same in either situation. The 1995 EIR on the Monterey Agreement prepared by the CCWA was challenged and in 2000, the court in *PCL v. DWR* found that the Department should have been the lead agency and that the EIR was inadequate because it failed to analyze the invocation of Article 18(b) as a no project alternative. See FEIR Subsection 13.2.1.

## Invocation of Article 18(b) (More Water in Delta?)

Invocation of Article 18(b) is not part of the proposed project, but is a court-ordered no project alternative. Under CEQA the purpose of the no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the project. The no project alternative must discuss what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans, and consistent with the available infrastructure and community services. See FEIR Subsection 13.2.2.1.

The SWP has been operated for over 12 years since 1996 pursuant to long-term water supply contracts that include the Monterey Amendment. Four versions of the no project alternative are examined in the DEIR because there is disagreement and uncertainty over how to characterize continued operation of the SWP in accordance with the pre-Monterey long-term water supply contracts. The impacts of implementing Article 18(b) were analyzed in two of these alternatives, Court-Ordered No Project Alternatives 3 and 4 (CNPA3, CNPA4). Under these two Article 18(b) no project alternatives, the sum of the Table A amounts would be reduced from 4.23 to 1.9

million AF. The only difference between CNPA3 and CNPA4 is how Article 21 water is allocated. In years when available water supplies exceeded 1.9 million AF, Article 21 water (or "surplus water") would be allocated proportional to contractor's Table A amounts for CNPA3. For CNPA4, Article 21 water was allocated based on the pre-Monterey Amendment preference to agricultural use and groundwater replenishment. Results are shown in DEIR Tables 11-3 and Table 11-4 on page 11-10. See FEIR Subsection 13.2.2.1.

During the preparation of the DEIR, and in trying to determine how to comply with the court's order on Article 18(b), the Department reviewed various ways to invoke Article 18(b) including invocation of Article 18(b) with no delivery of Article 21 water to SWP contractors. The invocation of Article 18(b) without Article 21 deliveries was not considered in detail in the DEIR because the Department concluded that it would not meet any of the objectives of the Monterey Amendment and because it would be in conflict with the basic terms of the long-term water supply contracts. See discussion on pages 11-5 and 11-6 in the DEIR. The Department also determined, after considerable discussion, that it would not have invoked Article 18(b) in this manner at any time in the past, nor into the near-term future. However, in response to comments, the Department has developed an analysis of the effects of operating the SWP with Article 18(b) invoked and with limited or no Article 21 water delivered to SWP contractors. Although the Department believes that Article 18(b) would not have been invoked in this way, nevertheless, this analysis provides additional information to the public and to decision-makers on the effects of not delivering water to SWP contractors that would otherwise be available under Article 21. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3.

## Elimination of Article 18(b) (Safe or Firm Yield)

As noted in DEIR Section 2.5.1, the total of maximum Table A amounts was originally important to the SWP because this number was intended to be the firm yield of the SWP. As discussed in FEIR Subsection 13.2.2.3, because of the recognition that some anticipated facilities have not been built and that the reliability of SWP water supplies fluctuates for many reasons, including physical and regulatory causes, the Department now considers the probability of an amount of water being delivered annually rather than firm yield when discussing reliability of SWP water supplies. As a result of this water delivery probability procedure, Table A amounts now serve primarily as a way of allocating supply shortages and surplus among the contractors and as a way of allocating costs of the SWP. Reducing the Table A amounts through invocation of Article 18(b) is not relevant in calculating total available SWP water supply, given current day operations and planning based on water delivery probability curves, and given the fact that all contractor shortages are allocated on a pro-rata basis under the provisions of Article 18(a) of the Monterey Amendment. See FEIR Subsection 13.2.2.3.

Some comments suggest that elimination of Article 18(b) removed a provision that could empower the Department to reduce project Table A amounts to reflect the "safe yield" of the project and that Article 18(b), and the concept of safe or firm yield would protect the Delta or to make local government aware of the limitations of SWP water supply. Like most other surface water supplies, SWP water supplies fluctuate, so in some years more water may be available and in other years less water may be available. The Department has determined that invocation of Article 18(b) and returning to the application of the concept of safe or firm yield in determining the amount of Table A that can be reliably allocated each year, except in extreme droughts, is not a reasonable way to protect the Delta or to make local government aware of the variability and limitations of SWP water supply. Such an action would not alter Delta exports, would not alter water supply reliability, nor would it alter the total amount of SWP water allocated to

contractors. The action would decrease Table A allocations and commensurately increase Article 21 allocations, both as scheduled surplus and as unscheduled (interruptible) supplies. See FEIR Subsection 13.2.2.3.

As discussed in FEIR Chapter 7, Subsection 7.2.2.1.3, the Department considers current regulatory processes and evolving Delta constraints to be the appropriate means of protecting the Delta and other environmental resources. As discussed in FEIR Chapter 9, Subsections 9.2.4 and 9.2.6, the Department considers processes such as the Reliability Report (which addresses the impact of climate change and Delta pumping restrictions) and other means of urban water management planning to be a more effective means of making local government aware of the variability and limitations of the SWP water supply. See FEIR Subsection 13.2.2.3.

### 17.2.5.6 Water Supply Management Practices

This response addresses the following comments: 20-6, 24-3, 25-1, 25-3, 27-6, 28-2, 28-4, 29-6, 32-1, 40-4, 51-1, 54-4, 57-1, 57-2, 60-3, 62-4, 67-16, and 67-18.

Some comments assert that water supply management practices tend to increase the use of Table A and Article 21 supplies of the SWP. Some claim that increases in winter and spring exports of Article 21 and turnback water were brought about by the Monterey Amendment. Others claim that water not used by SWP for water supply management practices would remain in-stream for environmental benefits. Some claim that the water supply management practices are growth-inducing and that they will encourage M&I contractors to maximize their use of the tools in the Monterey Amendment.

#### DEIR Analyzed All Water Supply Management Practices

Some of the water supply management practices were carried out under the long-term water supply contract as it existed before the Monterey Amendment. Storage outside the service area had been approved on a case-by-case basis and the Department was required by statute to transport water for others in SWP facilities when capacity is available to do so. See DEIR Subsection 2.5.2 for water transactions that the Department had approved prior to the Amendment. To the extent that the authority existed before the Monterey Amendment, the Amendment did not “enable” or “allow” these actions to occur. The Monterey Amendment facilitated these actions and, in some cases, established criteria for decisions. The DEIR environmental analysis, however, assumed that all of the impacts from these actions (except transporting no-project water) were new impacts attributable to the Monterey Amendment. This assumption provides a worst case analysis that would show the maximum impacts. Although the practices are analyzed together, the practices that have the greatest potential impact in the future are storage outside the contractor’s service area and flexible storage. See FEIR Subsections 15.2.4 and 15.2.5. Although the Turnback Pool was used in the early years of implementation of the Monterey Amendment, it is not expected to be used much in the future. See FEIR Subsection 15.2.6. The provisions regarding transport of non-SWP water clarify terms and conditions, but do not result in any increases in deliveries. See FEIR Subsections 15.2.7 and 15.2.1.

#### Impact on Delta

As discussed in FEIR Subsection 14.2.5.2, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta and have no impact on Delta fisheries resources. The only change resulting from the Monterey Amendment that has the potential to cause an adverse impact on

Delta fisheries is the implementation of the water supply management practices. The DEIR recognizes that implementation of the water supply management practices facilitated by the Monterey Amendment could possibly result in longer periods of sustained Delta export pumping relative to the baseline at certain times from November through March (see DEIR Impact 7.3-5) when water is available to be exported by the SWP within permitted levels in compliance with State and federal regulatory permits and other requirements, in effect at the time of pumping, that provide protection for the Delta aquatic environment, including for water quality, listed species and other aquatic resources.

With regard to past impacts (1996 to 2004), the DEIR found that the water supply management practices increased Delta exports and reduced Delta outflow by a cumulative total amount of 44,000 AF compared to the baseline scenario, equal to 0.03 percent of total Delta outflow during that nine-year period (DEIR page 7.3-74) and concluded that this increase was less than significant. The Department reviewed the information in the DEIR in light of today's current knowledge about the special-status species and this review confirms the conclusions of the DEIR that the increases during this period were less than significant.

The DEIR also concluded that there was a small, but potentially significant, impact from the proposed project on fisheries due to future application of the water supply management practices as a result of increased Delta export pumping even though this increased pumping would be in compliance with current and future regulatory requirements. Assuming hydrologic conditions in the future are similar to those that occurred from 1996 to 2004, the DEIR (pages 6-63 and 7.3-69), concluded that water supply management practices could potentially increase SWP deliveries by a cumulative total of approximately 450,000 AF over a nine year period. This amounts to an average annual increase of about 50,000 AFY (or 1.6 percent of the average annual SWP deliveries) based on assumed operations under the 2003 regulatory baseline. The estimate of future project-related export pumping was based on historical events that occurred in 6 out of 9 years ranging from 20,000 AF to 132,000 AF.

This increase would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The net future increase in Delta exports is also likely to be less than the estimate for a variety of reasons unrelated to the Monterey Amendment, including full requests for Table A amounts by all contractors in 2001 and from 2003 to the present and therefore more in-service area use, drier average hydrologic conditions compared to the relatively wet period used to generate the estimate, climate change, and new regulatory constraints on SWP Delta exports. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. The increased amounts of water delivered to the SWP contractors are primarily Table A amounts, but may include other types of water, including Article 21 water. See FEIR Subsection 15.2.2 for discussion of the water supply management practices and Subsection 7.2.2.1.3 for a discussion of the potential impacts in the Delta resulting from the practices and 7.2.2.2.2 regarding timing of exported water.

The potential to increase the beneficial use of water that could be supplied by the SWP facilities, consistent with environmental and other regulatory constraints on facility operation, especially Delta exports was one of the benefits of the Monterey Amendment. As long as regulatory and hydrologic conditions permit, the Department will pump available water from the Delta to meet contractor and operational needs regardless of the final classification of the water. Exported water is not classified until after it is delivered to a contractor. The increased amounts of water delivered to the SWP contractors as a result of the water supply management practices compared with the baseline are primarily Table A amounts, but may include other types of

water, including Article 21 water. Types of water delivered to SWP contractors, including Article 21 water, are discussed in FEIR Subsection 14.2.3. See FEIR Subsection 15.2.2.

To the extent that the Monterey Amendment increases Delta exports, there would be a commensurate decrease in Delta outflow as described in DEIR Subsection 7.1.1 and FEIR Subsection 15.2.2. As noted in those sections, these changes would occur during periods of high Delta outflow. There would be no change in in-stream flows tributary to the Delta other than the minor changes (0.15 percent or less) in Sacramento River and Feather River flows identified in DEIR Subsection 7.1.3 as a result of the Table A transfers, retirement, and revised allocation method. Eliminating the change in Delta exports caused by the proposed project would not result in additional water remaining in-stream for environmental benefits with the sole exception of the channels conveying water out of the Delta. See FEIR Subsection 15.2.2.

Also, the water supply management practice of storage outside of a contractor's service area could also be growth inducing. These results are consistent with the objective of the Monterey Amendment to "facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies." The growth-inducing effects of the proposed project are discussed in Chapters 8 of the DEIR and the FEIR. See also FEIR Subsections 17.2.7.3 and 13.2.4.2.

### 17.2.5.7 Change in Article 18(a) Opportunity for Growth

This response addresses the following comments: 21-5, 24-4, 28-2, 32-2, and 67-16.

Some comments claim that the pre-Monterey Article 18(a) served as a constraint on transfers that might have had growth inducing impacts because transfers of Table A water under the pre-Monterey long-term water supply contract would be subject to the agricultural shortage provisions. The comment states that elimination of the agricultural shortage provision of the Table A transfers will increase urban use and reliance on SWP water and requests that this impact be disclosed. Other comments state that it is reasonable, given the elimination of the agricultural shortage provisions, to expect that M&I contractors will try to maximize their use of the provisions in the Monterey Amendment and that the Monterey Plus EIR should disclose this impact. Other comments have argued that the change in Article 18(a) that requires that water shortages be shared equally among all contractors in proportion to their Table A amounts means that there will be more pressure on the Department to maintain high levels of exports to meet the unyielding demands of both. See FEIR Subsection 13.2.4.2.

As noted in DEIR Subsection 2.5.2, under Article 15(a) of the pre-Monterey long-term water supply contracts, the Department has approved the transfer of SWP water from one SWP contractor to another SWP contractor. Additionally, Article 41 provides the Department with the authority to approve a proposed assignment or transfer of any part of the contracts. Prior to the Monterey Amendment, the Department also implemented various water management practices through SWP contract amendments or separate agreements on a case-by-case basis. However, the Monterey Amendment has facilitated certain Table A transfers and the DEIR found that permanent Table A transfers under the Monterey Amendment could be growth inducing. Also, the water supply management practice of storage outside of a contractor's service area could also be growth inducing. These results are consistent with the objective of the Monterey Amendment to "facilitate water management practices and water transfers that improve reliability and flexibility of SWP water supplies in conjunction with local supplies." The growth-inducing effects of the proposed project are discussed in Chapters 8 of the DEIR and the FEIR. See FEIR Subsection 13.2.4.2.

The Department agrees that M&I contractors would try to maximize their use of the water supply management practices – one of the objectives of the Monterey Agreement. The potential to increase the beneficial use of water that could be supplied by the SWP facilities, consistent with environmental and other regulatory requirements, was one of the benefits perceived by the Department and many of the SWP contractors that negotiated the Monterey Amendment. See FEIR Subsection 13.2.4.2.

As discussed in FEIR Subsection 11.2.4.2.7, the Department does not agree. For a variety of reasons, pumping from the Delta is usually supply-limited, not demand-limited. When supplies are limited, contractor demands or requests do not determine how much water is pumped from the Delta, but rather regulatory and hydrologic constraints control the ability of the Department to meet SWP needs and contractor requests. The fact that Delta pumping is supply-limited more often means there will be fewer times when water could be exported in the future as a result of the water supply management practices – the only impact from the proposed project which could result in increased impacts on the Delta. That impact is reflected in the estimate of about 50,000 AF of average annual added Delta export pumping in the future attributable to the proposed project as a result of the water supply management practices, and would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts are likely to be less than those set forth in the DEIR. See FEIR Subsection 15.2.2, on the effect of the water supply management practices on deliveries and Subsection 15.2.3 on water supply management practices and demand. See FEIR Subsection 13.2.4.2.

### 17.2.5.8 Effect on Drought Protection

This response addresses the following comments: 19-7, 20-2, 21-5, 24-3, 24-4, 25-2, 25-4, 26-8, 27-2, 28-2, 29-3, 32-1, 32-2, 39-1, 40-3, 41-1, 44-3, 45-3, 46-2, 48-1, 49-1, 51-1, 52-3, 53-2, 54-2, 57-3, 60-2, 61-3, 65-10, 66-2, 66-20, 66-23, 67-3, 67-6, and 67-16.

Several comments have suggested that the elimination of the Article 18(a) agricultural shortage provision reduces or eliminates drought protection to urban areas because it decreases the reliability of Table A water to M&I contractors. Some comments claim that the Monterey Amendment decreases SWP water supplies for urban areas by over 400,000 AF in certain dry years. Other comments have also expressed concern that the Monterey Amendment will result in “drought or demand hardening.” See FEIR Subsection 13.2.4.1.

<u>Reduced Drought Protection for M&I Contractors.</u>

The Monterey Amendment would result in an increase in average annual deliveries to M&I contractors of about 26,000 AF compared to the baseline scenario. The increase is primarily due to the provision of the Monterey Amendment that enables the transfer of Table A amount from agricultural to M&I contractors. The Monterey Amendment would result in a reduction in average annual deliveries to M&I contractors in critically dry years of about 53,000 AF compared to the baseline scenario. See FEIR Subsection 13.2.4.1.

This water supply reduction for M&I users occurs because under the Monterey Amendment, shortages for all contractors are to be shared proportionally to their Table A amounts, rather than being met first by water supply reductions to the agricultural contractors pursuant to the pre-Monterey Article 18(a) provisions. Prior to the Monterey Amendment, Article 18(a) reduced allocations to agricultural contractors before reducing allocations to M&I contractors. The Department agrees that this pre-Monterey provision provided more water to M&I contractors in

drier years than under the Monterey Amendment. The Monterey Amendment provided for an allocation prorated on all contractors' Table A amounts, which would provide less water to M&I contractors in drier years due to the elimination of the agricultural shortage provision. However, the Monterey Agreement was a negotiated agreement that included a number of other provisions. It provided an approval for agricultural contractors to permanently retire 45,000 AF of their Table A amounts and for the permanent transfer to M&I contractors of 130,000 AF of Table A amounts. See FEIR Subsection 13.2.4.1.

Additionally, M&I contractors were given equal priority with the agricultural contractors for Article 21 water and more flexibility with how they could use such water supplies. The water supply management practices (carryover in San Luis Reservoir, out-of-service area storage, Turnback Pool and flexible storage in Castaic Lake and Lake Perris) have added flexibility and reliability for drier years to both M&I and agricultural contractors. See FEIR Subsection 13.2.4.1.

Comment 21-11 appears to say that reducing drought protections to urban areas is detrimental. Under the Monterey Amendments, there will be a reduction during drier years of Table A allocations for M&I contractors. However, for some M&I contractors who acquired Table A amounts under the Monterey Amendment, those acquisitions more than offset the Table A allocation decrease in dry years (see DEIR Table 6-11). Local or out-of-service area storage withdrawals can also offset some Table A allocation decreases. See FEIR Subsection 13.2.4.1.

## "Drought or Demand Hardening"

The terms "drought hardening" or "demand hardening" apparently refer to the situation where water agencies implement more stringent conservation measures on an ongoing basis thereby leaving less flexibility for significant cutbacks during drought periods. To the extent that decreased M&I supplies from Table A deliveries due to the Monterey Amendment allocation changes have triggered added conservation, then there may be less flexibility for those M&I agencies in a drought period. The change in allocation of Article 21 water does partly offset the decrease in M&I contractors' Table A supply in some water-type years due to changed Table A allocations, to the extent that M&I contractors can store the water in wet periods and recover it in drought periods. See FEIR Subsection 13.2.4.1.

It is not clear whether the transfers from agricultural contractors to M&I contractors would reduce the flexibility of agricultural contractors in a drought period. Since the agricultural contractors were requesting full Table A supplies prior to the Monterey Amendment, it is doubtful that these supplies were used for drought relief. As discussed in the DEIR regarding Agricultural Resources Impact 7.6-1 (on pages 7.6-5 through 7.6-9), there is no strong evidence to support a conclusion that land was taken out of irrigated production as a result of the proposed project. As discussed in DEIR regarding Terrestrial Biological Resources Impact 7.4-1 (on pages 7.4-20 through 7.4-22), the trend of replacing irrigated annual crops with permanent crops is expected to continue in the future with or without the proposed project. While it is possible that additional land could be converted to permanent crops as a result of the proposed project, no clear trend can be attributed to the proposed project that can be discerned from the historical analysis period. Although the proposed project resulted in a reduction of agricultural contractors' share of SWP Table A amount on an annual average basis, the reliability of their Table A supplies increased during drought periods. See FEIR Subsection 13.2.4.1.

If enough water that is surplus to contractors' annual needs (either Table A or Article 21) can be stored to weather drought periods and more than offset the losses of Table A supply in those years, then the storing contractors could better maintain supplies during droughts. Such stored

supplies can reduce the effects of "drought or demand hardening" by reducing the added degree of conservation that a water agency may need to impose during a drought. See the discussion in Chapter 8 of this FEIR relating to drought supplies from banked water for M&I contractors. The M&I contractors could draw on stored water during droughts. The net effect of the two changes on the municipal contractors would be small. See FEIR Subsection 15.2.3.5 for a discussion on whether the Monterey Amendment increased demand. See FEIR Subsection 13.2.4.1.

### 17.2.5.9 Demand

This response addresses the following comments: 28-2, 32-2, 39-1, 44-3, 46-4, 48-1, 49-1, 52-3, 59-2, 61-3, and 67-16.

Some comments disputed the decision of the DEIR to include increased contractor demand in the baseline. Some stated that reduced demand should be included in the baseline. Other comments suggest that the Monterey Amendment increased demand for water or that the EIR should include an alternative of reduced demand.

The term "demand" is used in three different contexts when applied to SWP water supply and may cause confusion especially when trying to analyze the impact of the increase in SWP water deliveries potentially resulting from the water supply management practices. See FEIR Subsection 15.2.3 on water supply management practices and demand. See FEIR Subsection 11.2.4.1 on reducing supply as an alternative. See also FEIR Subsection 17.2.10.2 below for a summary of why suggestions to reduce supply were rejected as alternatives to the proposed project. See FEIR Subsection 15.2.3.5.

#### Contractor Requests (or Demands) for Water

One context describes the action of an SWP contractor when it "requests" SWP water to meet a part of its demands. As discussed in DEIR Subsection 6.2.3 (page 6-5), contractors provide the Department with their water requests early in the water year. These requests are based on the contractors' estimates of the supplies they anticipate they will require to meet their expected water demands or needs, considering all other sources of water available to them. The Table A amounts in most SWP contracts reached a maximum in the early 1990's. However some contractors did not request their full Table A amounts until the early 2000's. In 2001 and from 2003 to the present, all SWP contractors have been requesting delivery of their entire Table A amounts every year and these full requests are likely to prevail through 2020 and beyond. This demand increase is independent of the changes that are a part of the proposed project. DEIR Section 2.4 (page 2-9) and 6.3.1 (page 6-12). It is also important to note that contractors cannot request more Table A water deliveries than is provided in their water supply contracts. They also cannot request more Article 21 water than their system capabilities and available storage facilities can accommodate. See FEIR Subsections 14.2.2.3 and 15.2.3.5.

#### Demand in the Baseline

Another context of demand describes the "demand" input to the CALSIM II model used in this EIR to estimate deliveries to SWP contractors of SWP water for the purpose of comparing the allocation of water supplies under different hydrologic year types for different alternatives. The estimates of demand for 2020 assume full Table A requests for all contractors and are based on current contractor requests for full Table A deliveries and assumed increases over time given estimated increases in population and historical demands. The CALSIM II demands for Table A supplies cannot exceed contractual Table A supplies, and thus may represent only a portion of

each agency's total in service area demands. Article 21 demands in CALSIM II reflect each contractor's ability to temporarily accept supplies on an interruptible basis during the wetter periods when such supplies can become available. Actual contractor in-service area demands are greater than the SWP values input to the CALSIM II model, as SWP water is only one part of total in-service water demand. CALSIM II only models SWP contractor's SWP water demands. See FEIR Subsection 6.3.2.4 on use of Table A amounts in CALSIM II. See FEIR Subsection 15.2.3.5.

Some comments questioned whether it was appropriate to include increasing demand for SWP water in the baseline scenario. Water demand has increased in the SWP service area over time and all contractors now request their full Table A amounts every year. The Department has determined that it is reasonable and appropriate to include full Table A requests by all the contractors in the baseline for the 2003 to 2020 time period. However, actual demand may be less than requests. Full Table A demands are included in the baseline and in the project and no-project alternatives for 2020 based on growth projections and water demand projections for the state. Such increases represent a projected continuation of the increasing demands experienced by the SWP from its inception to now. The projections are supported by an evaluation of current trends in the current California Water Plan (DWR Bulletin 160 Series). The demands are expected to continue to increase independently of any decisions on the Monterey Amendments. See FEIR Subsection 6.1.2.3.3.

## Did the Monterey Amendment Increase Demand

The first context describes the "demand" or "need" for water from all sources in the service area of the contractor. This is the type of demand that is meant by the "supply and demand assessment" required by the Urban Water Management Planning Act and may be based on a number of factors including population projections, climate, and other demographic factors, local plans and water demand management measures (see CWC Sections 10631 and 10635). See FEIR Subsection 15.2.3.5.

Because it is difficult to be certain whether an additional supply of Table A amounts or the water supply management practices will affect the in-service area total demand of SWP M&I contractors who benefited from these provisions, this EIR assumes that the increased supply made available by the Monterey Amendment did increase urban demand for water as a result of two actions. The transfer of water from agricultural contractors (contractors that always used their full allocated Table A amounts) to urban uses may increase urban demand for water. Several SWP urban contractors received the Table A transfers for the purpose of supporting their urban agency's planned population growth. In addition, an increase in dry-year supplies from water stored outside of contractors' service areas (one of the water supply management practices) may support an additional increment of growth for SWP M&I contractors that made use of storage outside their service areas, and in those cases the added growth could also have an accompanying demand for additional water. For those contractors not benefitting from the above actions, the Monterey Amendment would not lead to increased demands within those service areas. See DEIR Chapter 8 and FEIR Chapter 8, especially FEIR Subsection 8.2.4. See also FEIR Subsection 15.2.3.5.

See also FEIR Subsection 17.2.4.4 above for a discussion on the Department's role in other water policy issues, including water conservation.

### 17.2.5.10 Increases in Deliveries not due to Monterey Amendment

This response addresses the following comments: 21-2, 24-3, 25-1, 25-3, 27-6, 28-4, 29-6, 32-1, 40-4, 57-2, and 67-19.

Some comments state that there have been significant increases in pumping from the Delta since implementation of the Monterey Amendment.

Only Increased Pumping Due to Water Supply Management Practices

In conclusion, as discussed in FEIR Subsection 15.2.1, because there was no change in total requests for Table A deliveries (except a small decrease prior to 2001 as the demand of the urban agencies caught up to the new supplies due to urban growth), there are no delivery increases attributable to the Table A transfers. The only change resulting from the Monterey Amendment that has the potential to cause increased exports and adverse impacts on Delta fisheries is the implementation of the water supply management practices. The DEIR identified an increase in exports up to a cumulative amount of 44,000 AF during the period from 1996 to 2004 compared to the baseline scenario. It also identified a potential in the future for an average annual increase of 50,000 AF in the future which would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The DEIR concluded that past implementation of the water supply management practices did not result in a significant impact; but there was a small, but potentially significant, impact from the proposed project on Delta fisheries due to future application of the water supply management practices as a result of increased Delta export pumping. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. See further discussion of this impact see FEIR Subsections 15.2.2 and 7.2.2.1.3.

See FEIR Subsection 11.2.4.2 on reducing supply as an alternative. See also FEIR Subsection 17.2.10 below for a summary of why suggestions to reduce supply were rejected as alternatives to the proposed project.

Most Increased Pumping Since 1996 Not a Result of the Monterey Amendment.

The DEIR identified a cumulative total increase in deliveries resulting from the proposed project of about 44,000 AF during the nine-year period from 1996 to 2004 compared to the baseline scenario. However, the DEIR also shows that annual deliveries increased more than this amount during the period from 1996 through 2004 (compare DEIR Tables 2-3 with DEIR Table 6-7) as a result of increased demand. Total average annual deliveries under 1995 conditions were estimated to be about 2.9 million AF (see DEIR, Appendix F). Total average annual baseline deliveries would increase to about 3.1 million AF in 2003 and to 3.32 million AF in 2020 (see DEIR Chapter 6, pages 6-32 and 6-38). Except for the cumulative total amount of 44,000 AF, these increases are not related to changes made as a result of the Monterey Amendment, but are the result of factors such as population increases; decreases in other water sources, such as the Colorado River due to the QSA; and wetter years which provide greater opportunities for Delta export pumping. See discussion in FEIR Subsections 6.3.2.1, 15.2.2, 15.2.3.1, and 15.2.3.3.

The SWP is usually supply limited.

The increase in contractor demands or requests means that pumping from the Delta is usually supply-limited. Under supply-limited conditions, Banks is operated at its maximum permitted

capacity consistent with all environmental and water quality regulations in order to maximize the volume of water captured. When supplies are limited, contractor demands or requests do not determine how much water is pumped from the Delta, but rather regulatory and hydrologic constraints control the ability of the Department to meet SWP needs and contractor requests. As a consequence of the increase in requests for Table A water, and relatively dry hydrologic conditions since 2000, there are more times when Delta pumping at Banks is supply limited than there were prior to 2000. Increased regulatory export restrictions will also increase the times that pumping from the Delta is supply-limited. See FEIR Subsection 15.2.3.1 on increased contractor requests and FEIR Subsection 15.2.3.3 on reasons for the increased requests and the effect of dry hydrologic conditions. See FEIR Subsection 15.2.3.2.

### 17.2.6 Environment and the Delta

#### 17.2.6.1 Delta Impacts and Critical Decline

This response addresses the following comments: 19-7, 20-5, 21-2, 21-62, 24-3, 25-1, 25-3, 27-3, 27-6, 28-4, 29-6, 32-1, 40-4, 41-2, 44-2, 44-5, 47-5, 51-1, 52-2, 52-5, 54-4, 57-2, 58-2, 58-4, 60-3, 61-2, 61-5, 62-1, 62-4, 64-36, 65-13, 66-2, 66-6, 66-12, and 67-19.

Some comments assert the Monterey Amendment contributed to significant environmental degradation in the Bay-Delta estuary, its fish and eco-systems. Other comments claim the Monterey Amendment allows over-pumping from the Delta in the winter and spring months, which, under the provisional use of the Monterey Amendments, contributed to the near extinction of the Delta smelt and other Bay-Delta fish populations (or ecosystem crash). Comments also claim that in view of the dramatic change and decline in the condition of the Delta, the DEIR is inadequate and should be revisited after further analysis.

The potential physical environmental impacts of proposed project implementation were evaluated in Chapter 7 of the DEIR; fisheries impacts are discussed in Section 7.3 of the DEIR. Cumulative impacts were addressed in Section 10.1. See also Section 7.2 of this FEIR for more discussion on the effects of the proposed project on the Bay-Delta estuary, its fish and its eco-systems.

This EIR examines changes resulting from the proposed project (the Monterey Amendment and the Settlement Agreement) and its potential environmental impacts. It is not an EIR on all the operations and impacts of the SWP or on the all of the problems regarding the Delta or relating to land use and water supply. The Department recognizes that there are conflicts between the management of water supply and fisheries in the Delta and is actively participating in a number of programs that are focused on resolving those conflicts while benefiting the Delta ecosystem. The conflicts in the Delta between aquatic resources, particularly listed fish species, and water exports, would continue to exist even if there was no proposed project. See FEIR Subsection 5.2.1.1.

The Monterey Amendment is an agreement between the Department and the SWP contractors primarily about how exported water that is available to the SWP is allocated and managed. When exporting water from the Delta the Department must comply with all current State and federal regulatory requirements in effect at the time of the export pumping, including numerous environmental standards, laws, and regulations relating to Delta inflow and outflow, Delta water quality, fish protection, environmental needs, water rights, and the needs of other users. The needs of other users include in-Delta users and the water rights of the areas of origin of Delta inflow. These requirements include applicable SWRCB orders, Corps permits, Biological Opinions and other regulatory constraints including any relevant judicial orders in effect at the

time of the operation. They have established water quality and flow requirements and limits on the rate of export of water that can be pumped by the state and federal pumping plants. These regulatory requirements, however, do not affect how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported from the Delta. See FEIR Subsections 14.2.1, 14.2.3 and 7.2.2.1.3.

The DEIR found that the proposed project had no significant past (1996 to 2003) impacts that were not mitigated to a level of less than significant. With respect to future impacts, the DEIR found that the water supply management practices, provided for in the Monterey Amendment, and the watershed improvement program for Plumas County, provided for in the Settlement Agreement, may have potentially significant impacts. The watershed improvement program is the only element of the Settlement Agreement determined to have potentially significant impacts. These impacts are considered relatively minor and no comments were received regarding these impacts. The water supply management practices may lead to potentially significant and unavoidable impacts on terrestrial resources as a result of the development of groundwater banks in Kern County other than in the KWB Lands and flexible storage provisions. They may also lead to potentially significant mitigable impacts on Delta fisheries resources. As discussed in this FEIR in Subsection 14.2.5.2, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta and have no impact on Delta fisheries resources. See DEIR, pages ES-4 and ES-5. See also FEIR Subsection 4.2.1.1.

As discussed in FEIR Subsection 14.2.5.2, the changes resulting from the altered water allocation procedures and permanent Table A transfers do not result in any increases in pumping from the Delta and have no impact on Delta fisheries resources. The only change resulting from the Monterey Amendment that has the potential to cause an adverse impact on Delta fisheries is the implementation of the water supply management practices. The DEIR recognizes that implementation of the water supply management practices facilitated by the Monterey Amendment could possibly result in longer periods of sustained Delta export pumping relative to the baseline at certain times from November through March (see DEIR Impact 7.3-5) when water is available to be exported by the SWP within permitted levels in compliance with State and federal regulatory permits and other requirements, in effect at the time of pumping, that provide protection for the Delta aquatic environment, including for water quality, listed species and other aquatic resources.

With regard to past impacts (1996 to 2004), the DEIR found that the water supply management practices increased Delta exports and reduced Delta outflow by a cumulative total amount of 44,000 AF compared to the baseline scenario, equal to 0.03 percent of total Delta outflow during that nine-year period (DEIR page 7.3-74) and concluded that this increase was less than significant. The Department reviewed the information in the DEIR in light of today's current knowledge about the special-status species and this review confirms the conclusions of the DEIR that the increases during this period were less than significant.

The DEIR also concluded that there was a small, but potentially significant, impact from the proposed project on fisheries due to future application of the water supply management practices as a result of increased Delta export pumping even though this increased pumping would be in compliance with current and future regulatory requirements. Assuming hydrologic conditions in the future are similar to those that occurred from 1996 to 2004, the DEIR (pages 6-63 and 7.3-69), concluded that water supply management practices could potentially increase SWP deliveries by a cumulative total of approximately 450,000 AF over a nine year period. This amounts to an average annual increase of about 50,000 AFY (or 1.6 percent of the average

annual SWP deliveries) based on assumed operations under the 2003 regulatory baseline. The estimate of future project-related export pumping was based on historical events that occurred in 6 out of 9 years ranging from 20,000 AF to 132,000 AF.

This increase would be partly offset by the decreases in Delta export pumping attributable to retirement of 45,000 AF of Table A. The net future increase in Delta exports is also likely to be less than the estimate for a variety of reasons unrelated to the Monterey Amendment, including full requests for Table A amounts by all contractors in 2001 and from 2003 to the present and therefore more in-service area use, drier average hydrologic conditions compared to the relatively wet period used to generate the estimate, climate change, and new regulatory constraints on SWP Delta exports. To the extent that climate change and regulatory constraints reduce SWP water supply, less water may be pumped from the Delta and environmental impacts will be less than those set forth in the DEIR. The increased amounts of water delivered to the SWP contractors are primarily Table A amounts, but may include other types of water, including Article 21 water. See FEIR Subsection 15.2.2 for discussion of the water supply management practices and Subsection 7.2.2.1.3 for a discussion of the potential impacts in the Delta resulting from the practices and 7.2.2.2.2 regarding timing of exported water.

The DEIR recognized the existence of the POD, but the CALFED Bay-Delta program, using the best available science at the time, was based on the assumption that the SWP operations, in compliance with environmental regulatory restrictions and with voluntary pumping curtailments, compensated by EWA, would not adversely affect special status species and could prevent a further decline of the POD species. The DEIR recognized that there are multiple stressors including entrainment; food web changes; introduced species and contamination and more recently, predation; that may be responsible for the decline of POD species. It also recognized that water project operations were being examined as a potential environmental stressor as part of the POD investigations. See page 7.3-25 of the DEIR. See FEIR Subsection 7.2.2.2.

The DEIR recognized the existence of the POD, but the CALFED Bay-Delta program, using the best available science at the time, was based on the assumption that the SWP operations, in compliance with environmental regulatory restrictions and with voluntary pumping curtailments, compensated by EWA, would not adversely affect special status species and could prevent a further decline of the POD species. The DEIR recognized that the multiple stressors currently thought to be responsible for the decline of POD species, including entrainment, food web changes, introduced species and contamination and predation. It also recognized that water project operations were being examined as a potential environmental stressor as part of the POD investigations. See page 7.3-25 of the DEIR. See also FEIR Subsection 7.2.2.2.

Even though SWP and CVP operations in the Delta have become more constrained recently by the court and regulatory agencies, the populations of at-risk fish have not rebounded. While it is clear that multiple factors are causing these declines, there is concern that any increased impact or stress could contribute to their further decline. Although the relative contribution of each environmental stressor is currently unclear, it appears that entrainment at the CVP and SWP pumps, especially during peak salvage events, may be important in some years for some species of fish. See FEIR Subsection 7.2.2.2.

Therefore, additional environmental regulatory restrictions have been placed on SWP exports by both courts and regulatory agencies since publication of the DEIR based on their view that the best available science at this time requires minimizing the effects of pumping on fisheries populations in order to prevent further jeopardy of sensitive fish species and habitat. As a result, it is expected that estimated future exports will decrease and any resulting impacts will be less under the new regulatory restrictions than under the 2003 regulatory scenario described in

the DEIR, and therefore no new environmental impact analysis is required. See FEIR Subsection 7.2.2.2. See also FEIR Subsection 11.2.4.2 on reduced export pumping.

### 17.2.6.2 Mitigation for Delta Impacts

This response addresses the following comments: 19-7, 21-2, 24-3, 25-3, 27-3, 27-6, 28-4, 29-6, 32-1, 40-4, 41-2, 44-2, 44-5, 47-5, 51-1, 52-2, 52-5, 54-4, 57-2, 58-2, 58-4, 60-3, 61-2, 61-5, 62-4, 64-36, 66-12, and 67-19.

Comments claim that it is improper for the DEIR to rely so heavily on existing or planned programs as mitigation. Some comments have suggested that the Department should propose additional mitigation measures on its own, separate from the current Delta regulatory forums. Others state that the measures do not include meaningful performance standards and are not "fully enforceable" as required the CEQA Guidelines Section 15126.4(a)(2).

The DEIR concluded that the only actions resulting from the proposed project that could affect the Delta were the water supply management practices which could increase Delta export pumping. The DEIR concluded that the impacts caused by increased Delta export pumping resulting from the water supply management practices in the 1996 to 2004 period evaluated in the EIR were less than significant. This conclusion was reviewed and confirmed in the FEIR. Even though increased export pumping resulting from water supply management actions after 2003 would be in compliance with regulatory requirements in effect at the time of the pumping, the DEIR concluded that this impact could be potentially significant, but that it could be reduced to a less than significant level. Estimated future exports are expected to decrease and any resulting impacts from the water supply management practices are likely to be less under the regulatory restrictions in effect as of June 2009 than those identified in the DEIR. See FEIR Subsection 7.2.2.1.3.

In those few years when water supply management practices may have an impact, the SWP will be operated in compliance with State and federal regulatory permits and other requirements, in effect at the time of the export pumping, that provide protection for the Delta aquatic environment, including for water quality, listed species and other aquatic resources. These requirements include constraints set by federal and State agencies under State and federal endangered species laws for operations of the SWP, operating pursuant to the Monterey Amendment, which are designed to minimize the effects of pumping on fisheries populations currently and in the future in order to prevent jeopardy and protect listed species and habitat. See pages 7.3-69 through 7.3-71 of the DEIR and FEIR Subsection 7.2.2.1.1.

The requirements described in the federal and State permits and opinions are in effect and on-going, although they are subject to change. Despite possible future changes in regulatory requirements, the Department believes that the regulatory agencies will continue their oversight and permitting responsibilities by conditioning SWP operations to appropriately protect the Delta aquatic environment. Therefore, in this case, the Department has determined that it is appropriate under CEQA to rely on this continual and on-going regulatory process to mitigate any potential current and future impacts to the Delta aquatic environment from the proposed project. The Department has determined that its commitment to continue to operate the SWP facilities in compliance with requirements of the existing regulatory processes under the circumstances described in the DEIR and FEIR will minimize, avoid and/or reduce potential effects on the Delta aquatic environment from the proposed project now and in the future to a less than significant level. If the Department were to propose additional specific mitigation measures, conflict would be likely given the uncertainties about the relative importance of the factors causing the fish declines in the Delta, the variety of possible measures to deal with them,

and the differences among experts on Delta conditions. The Department has determined that relying on the requirements of the existing regulatory process is not improper deferral of mitigation. Mitigation measures discussed are not indefinite and vague possibilities; they are being imposed on the SWP right now in ways that include mitigation of the Monterey Amendment Delta impacts. See FEIR Subsection 7.2.2.1.3.

The amount of water available for allocation to SWP contractor in the DEIR was based on studies that included the environmental constraints in effect in 2003, including Corps permits and the water quality and flow objectives for the Delta promulgated by the SWRCB in Decision 1641. The more restrictive constraints imposed by the Wanger decision, and regulatory fisheries agencies were not included in the analyses. Therefore, the DEIR may overstate both the benefits to the SWP and the impacts on the Delta resulting from the proposed project. The more restrictive the constraints placed on SWP Delta exports, the less effective the water supply management practices will be in improving reliability and flexibility of SWP water supplies in conjunction with local supplies. Estimated future exports are expected to decrease and any resulting impacts are likely to be less under the regulatory restrictions in effect as of June 2009 and therefore no new environmental impact analysis is required. See FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3.

EIRs are expected to evaluate impacts that are reasonably foreseeable. The DEIR may overstate the amount of water that is available for allocation to the SWP contractors because current regulatory constraints on Delta export pumping are more stringent than the 2003 conditions used in the DEIR and future SWP deliveries are likely to be reduced compared to 2003 conditions. If the DEIR overestimates deliveries, the consequence is that it also overestimates environmental impacts. In an environmental disclosure document such as an EIR, it is better to overstate than to understate the potential impact so that the public and decision-makers can see the full environmental extent of their decisions. See FEIR Subsection 6.2.2.2.

Some comments appear to express a concern that local governments and other decision-makers might rely on the EIR delivery estimates in determining the reliability of SWP water. Overstating the amount of water available could be a problem in documents that are relied upon for determining water reliability. The values in this EIR analysis should not be used to estimate current available SWP water or the reliability of future deliveries. There are other tools that are intended to help determine the reliability of water such as Urban Water Management Plans and the Reliability Report released by the Department. See FEIR Chapter 9 on water supply reliability. See also FEIR Subsection 6.2.2.2.

### 17.2.6.3 EWA for Mitigation

This response addresses the following comment: 67-21.

The comment asserts that the DEIR cannot rely on the EWA for mitigation of impacts.

The Department has committed 48,000 AF of water from the Yuba Accord and the SWP to VAMP (for more information on VAMP see page 7.1-33 in the DEIR) and associated actions as part of the resources to provide fish protection as part of the OCAP Biological Assessment and the Delta smelt Biological Opinion. See discussion on EWA in FEIR Subsection 7.2.2.1.5. The Department may continue to use EWA assets to help recover water supplies lost as a result of new regulatory restrictions. However, the new Biological Opinions and Incidental Take Permit impose requirements that reduce export pumping substantially in excess of the value of these assets. Therefore, while EWA-type programs may be in place, the Department is no longer

relying on the EWA to mitigate for fisheries impacts in the future. The operational assets included in Mitigation Measure 7.3-5 as granted to the EWA in the CALFED ROD are described in the Delta smelt Biological Opinion and will be used to help recover a portion of the water supply lost to pumping curtailments for fish protection. See FEIR Subsection 7.2.2.1.3. See FEIR Subsection 17.2.5.2 for more discussion on fisheries mitigation.

There is no plan at this time to provide for additional public funding to continue EWA. Since 2008, public funding has been insufficient to provide replacement water to compensate for reductions in Delta pumping to protect Delta fish species as has been the case in prior years. In addition, some of the pumping reductions that were previously part of environmental agreements have become mandatory. Thus the nature of the future EWA Program, if any, is subject to further discussion among the five EWA Agencies. See FEIR Subsection 7.2.2.1.5.

### 17.2.6.4 Wanger Decision

This response addresses the following comments: 66-6, 66-10, 66-17, and 66-20.

Comments ask for the DEIR to discuss the impact of the Wanger Decision.

The DEIR used Delta regulatory restrictions in effect in 2003 as part of the environmental setting in evaluating impacts of the proposed project. See FEIR Subsection 6.3.2.3. At that time, the primary regulatory controls determining what water was available to the SWP were the Corps permits and SWRCB orders relating to water rights and water quality. Since the publication of the DEIR in 2003, constraints imposed to protect listed species specified additional parameters that further reduced the rate at which water is available for export to the SWP from December through June. In 2007 and 2008, Judge Wanger of the U.S. District Court in Fresno found the Biological Opinions of USFWS for delta smelt and of NMFS for salmonids to be invalid, but he did not vacate them (the 2007 decision was discussed in the DEIR on page 7.3-70). He ordered interim operational constraints on the SWP and CVP Delta exports, in addition to others already existing, that would be in effect until a new Biological Opinion on delta smelt was adopted. This 2007 Wanger order establishing interim operational constraints was planned as a one year remedy phase operation, and is called the Wanger decision in this FEIR. Reclamation and the Department submitted an OCAP Biological Assessment to both USFWS and NMFS that included operating the SWP pursuant to the Monterey Amendment. The Biological Opinion on delta smelt was adopted in December 2008 and the Department is currently operating the SWP in compliance with it. The judge did not order an interim remedy for the salmon and steelhead. A Biological Opinion for these fish was issued in June 2009. The Department applied for a CESA Incidental Take Permit for longfin smelt and a permit was issued on February 23, 2009. Now that the federal Biological Opinions have been issued, the Department is also working with CDFG to update CESA coverage for other State-listed species. See FEIR Subsection 7.2.2.1.1.

Thus since the publication of the DEIR, new regulatory restrictions have been imposed on SWP operations which significantly reduce exports from the Delta. These restrictions include the 2007 interim Wanger decision which was replaced by the USFWS Biological Opinion for delta smelt issued in December 2008. In February 2009, additional restrictions were included in the DFG Incidental Take Permit for longfin smelt and NMFS added more restrictions in its Biological Opinion for salmonids issued in June 2009. These new regulatory restrictions assess the operation of the SWP and include the Monterey Amendment as part of SWP operations. These restrictions are based upon what the regulatory agencies consider to be the current best available science and are, in their view, necessary to minimize the effects of pumping on fisheries populations currently and in the future in order to prevent jeopardy and protect listed fish species and habitat. The biological opinions and permits for these listed species include

requirements that improve Delta aquatic habitat through export restrictions, changes in Delta flows, and land-based projects to restore fish habitat. In addition, requirements include improvements in handling of fish salvaged at the fish protection facilities and other measures to improve fish survival. Such requirements also improve the Delta ecosystem and provide benefits to other fish besides those listed under the state and federal endangered species acts. Although the DEIR presented information that effects of the proposed project on non-listed species are less than significant, the protections provided by the current and future regulatory requirements will provide benefits to the non-listed species. These decisions, SWRCB orders and Corps permits control the conditions under which the Department can export SWP water from the Delta, and do not restrict how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported. See FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3.

In summary, the DEIR presented information regarding future environmental impacts of the proposed project under a regulatory scenario in effect in 2003 that had fewer protective restrictions on Delta export pumping than exist today. Estimated future exports are expected to decrease and any resulting impacts are likely to be less under the regulatory restrictions in effect as of June 2009 and therefore no new environmental impact analysis is required. See FEIR Subsections 7.2.2.1.1 and 7.2.2.1.3. See discussion of mitigation of impacts on the Delta in FEIR Subsections 17.2.6.1 and 17.2.6.2.

## 17.2.7 Growth

### 17.2.7.1 Growth Induced Impacts

This response addresses the following comments: 21-4, 26-8, 28-2, 39-1, 47-2, and 67-16.

Some comments express concern that the proposed project will allow for an additional 400,000-550,000 increase in population. As discussed in FEIR Subsection 8.2.2.1, the DEIR also found that, while the exact magnitude is unknown, the Monterey Amendment could potentially support an increased population in some areas. The DEIR took a very conservative approach and assumed that all of the net increases in Table A deliveries resulting from Table A transfers to specific M&I contractors after offsetting decreases due to revised allocation procedures could be growth-inducing in that contractor's area. The FEIR updated some of this information to include potential increases as a result of the water supply management practices. In spite of the uncertainties of considering dry year supplies as the primary constraint to growth, this analysis helps clarify the maximum potential for growth inducement under dry year conditions. However, the analysis does not change the final conclusion that there are potential growth-inducing impacts, that the growth-inducing assumptions are very conservative and overstate the potential for growth inducement, and that analysis of the environmental impacts and mitigation measures is done at the local level. See FEIR Subsection 8.2.4.

The analysis in the DEIR, on pages 8-14 and 8-15, concluded that some of the additional water supply made available by the Monterey Amendment could support additional growth and that increases in population within the contractor's service area can result in new development that causes adverse impacts to the environment that are potentially significant and cannot be avoided. It then identified in a general way, on pages 8-12 and 8-14, certain adverse environmental impacts that could occur from growth-induced impacts and certain mitigation measures that local decision-makers could make that might avoid or minimize project-induced growth including locating the growth in areas where sensitive resources are absent, minimizing the losses of resources, or replacing any loss. The DEIR concluded on page 8-15, "neither the Department nor local water supply agencies make local decisions regarding growth and where it

will occur. Cities and counties in the contractor service areas affected by the increased population are responsible for considering the environmental effects of their growth and land use planning decisions. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. Where appropriate, they must consider mitigation measures, alternatives and overriding considerations." See FEIR Subsection 8.2.2.2.

### 17.2.7.2 Department's Role with Regard to Local Growth Decisions

This response addresses the following comments: 26-8, 28-2, 47-2, and 67-16.

Comments suggest the EIR should analyze local projects' growth.

This EIR complies with CEQA by estimating the potential population that could be supported if the proposed project were implemented and by identifying potential impacts and mitigation measures that could result from local development decisions to accommodate that population in general terms. The level of detail contained in the DEIR for growth-inducing impacts and reliability analyses is consistent with the general level of review required for the Monterey Amendment. Even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities, local water resources and local water use. The potential environmental impact of growth is subject to more detailed environmental review at the project level. Project-level EIRs prepared by local decision-makers are subject to an independent determination and disclosure of significant environmental impacts. See FEIR Subsection 8.2.2.2.

Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Even if the Department had the authority to make such decisions at this level of detail, it is not timely or practicable for the Department to analyze each individual decision made by local government that might rely upon increases in SWP water from the proposed project and then to monitor or second-guess each individual decision made by local government or to establish general rules that would govern these decisions. Nor would it meet most, if any, of the objectives of the Monterey Amendment. The Department rejects the idea that it should use its management of the SWP to manage or block future economic growth including housing that would serve the State's growing population. These decisions are within the authority and control of and properly deferred to local decision-makers where specific projects can be more fully described and are ready for detailed analysis. This approach is consistent with the traditional legislative policy that fundamental decisions regarding land use and growth are made through the general planning process at regional and local levels. See FEIR Subsection 8.2.2.2. The Department's role in water reliability planning includes the issuance of the SWP Delivery Reliability Report every two years which informs local decision-makers of water supply limitations of SWP water and is discussed in FEIR 9.2.6.

However, the DEIR does not avoid the demands facing the State and the Delta either with regard to growth and water availability (see Chapters 8 and 9 on Growth and Water Reliability in the DEIR and the FEIR)., with regard to the stresses facing the Delta (see Section 7.3 in the DEIR and Section 7.2 on fisheries in the FEIR) or with regard to challenges posed by climate change (Chapter 12 in the DEIR and Chapter 12 in the FEIR). Application of the Monterey Amendment is not inconsistent with other water policy actions. As stated in FEIR Subsection 5.2.1.2, the primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The Monterey Amendment does not increase Delta exports beyond permitted

limits. Physical, legislative, administrative or judicial changes that affect water supply or benefit the environment may impact how the Monterey Amendment is applied. See FEIR Subsection 11.2.4.

As discussed in FEIR Subsection 8.2.2.2, although the Department does not have statutory authorization to establish mandatory requirements regarding water reliability and growth, it supports local and regional water planning and conservation efforts through statewide planning and through grants and local assistance programs. Demand reduction and water conservation strategies are important tools in water management planning and the Department is involved in a number of legislative and administrative actions designed to provide a regional or statewide approach to these strategies. See DEIR pages 11-5 through 11-7. The Department is taking a leadership role and is actively involved in many of these efforts. See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection. As discussed above, such measures are not alternatives to the Monterey Amendment and implementation of such measures would not be affected by the Monterey Amendment. See FEIR Subsection 11.2.4.

### 17.2.7.3 Reliability of Water Supplies – "Paper Water" and "Safety Valve" or "Safeguard"

This response addresses the following comments: 20-4, 21-4, 24-4, 25-4, 26-8, 27-4, 28-3, 28-4, 29-5, 32-2, 39-1, 41-1, 41-3, 43-3, 44-2, 44-3, 44-4, 44-5, 45-1, 46-2, 46-4, 48-1, 50-1, 52-2, 52-3, 52-4, 53-2, 53-4, 54-4, 57-1, 58-2, 58-3, 58-4, 59-1, 61-2, 61-3, 61-4, 61-5, 63-3, 65-2, 66-2, 66-6, 66-23, 67-8, 67-10, 67-11, and 67-18.

A major concern of the court in *PCL v. DWR,* and expressed by many of the comments, was that the Department ignores a "common-sense" connection between water availability and growth, and that several changes in the Monterey Amendment could lead decision-makers to approve urban developments that would not have been approved if they had a more realistic idea of water availability from the SWP. This issue was termed a "paper water" problem because reliance is arguably placed on water that "exists only on paper in the SWP long-term water supply contracts. The concern expressed by the comments was that deleting Article 18(b) and Article 21(g)(1) removed important tools that could have prevented the possibility of reliance on "paper water" where SWP water was involved. As discussed below, the Department agrees that there is a common sense connection between water availability and growth.

Comments also claim that Article 18(b) required the Department to determine the realistic yield of the SWP and that elimination of Articles 18(b) and 21(g)(1) perpetuate a reliance on paper water. Other comments argue that local decision-makers rely on unrealistic expectations to approve development projects which induce growth and that the Monterey Amendment allows intermittently available or unreliable "paper water" to support uses such as housing developments or permanent crops. Other comments claimed that by eliminating Article 18(b) the project is eliminating a key safeguard that allows the Department to respond to permanent shortages such as those caused by climate change and changes in regulatory constraints by adjusting entitlements to reflect reality. Instead of maintaining or exercising this provision, comments state that the Department relies on its Reliability Report to share information with water agencies about the project's reliability and that this is not an adequate substitute. Others object to the "common sense provision in the original contract which required the Department to determine the realistic yield of the SWP" and without knowing the actual capacity of the SWP, the Department will continue to promise to deliver "paper water." Other comments state that the

promise of paper water has led to over-reliance on the water from the fragile Bay-Delta, over pumping, inevitable cutbacks in water supplies and ultimately decreased water supply reliability.

As discussed in FEIR Subsection 9.2.4, the Department agrees that there is a common sense connection between water availability and growth. The Department disagrees with the comments on what the Department should do with regard to the issue of local expectations of SWP water supply reliability, and believes this issue has been adequately analyzed for CEQA purposes. See FEIR Subsection 9.2.4.

As noted in DEIR Section 2.5.1, the total of maximum Table A amounts was originally important to the SWP because this number was intended to be the firm yield of the SWP. As discussed in FEIR Subsection 13.2.2.3, because of the recognition that some anticipated facilities have not been built and that the reliability of SWP water supplies fluctuates for many reasons, including physical and regulatory causes, the Department now considers the probability of an amount of water being delivered annually rather than firm yield when discussing reliability of SWP water supplies. As a result of this water delivery probability procedure, Table A amounts now serve primarily as a way of allocating supply shortages and surplus among the contractors and as a way of allocating costs of the SWP. Reducing the Table A amounts through invocation of Article 18(b) is not relevant in calculating total available SWP water supply, given current day operations and planning based on water delivery probability curves, and given the fact that all contractor shortages are allocated on a pro-rata basis under the provisions of Article 18(a) of the Monterey Amendment. See FEIR Subsection 13.2.2.3.

The DEIR points out that land use decisions are not made in a vacuum, such as relying only on a Table A number found in the long-term SWP water supply contracts. There are many other factors local decision-makers consider. The fact that there are disputes over the Department's analysis for the Reliability Report, that there are law suits challenging urban water management plans and local planning decisions, and that there are efforts being made in legislative and regulatory areas to improve decisions relative to land use and supply is evidence that local and state decision-makers recognize the "common sense" connection between water availability and growth and are making efforts to deal with it. See FEIR Subsection 9.2.4.

Article 21(g)(1) was designed to prevent the establishment of permanent agricultural crops based on Article 21's provision for delivery of scheduled surplus water. It was considered reasonable to delete it from the contracts as part of the Monterey Amendment when the "scheduled surplus water" provisions were deleted. Scheduled surplus water had not been available for about nine years prior to the Monterey Amendment. Unscheduled (interruptible) water was infrequently available in that same period (1987 to 1995) and it was unlikely that anyone thought that intermittent Article 21 water would be used to support development of an economy in agricultural or M&I areas. See FEIR Subsection 9.2.5.2.1.

A number of documents published by the Department make it clear to water suppliers and local government that they should not rely on Article 21 water on an annual basis. They all recognize, however, that Article 21 water can be stored for later use and that stored water can constitute a source of water that can be relied upon in local water supply planning. In the absence of storage, interruptible Article 21 water is not likely to contribute to local water supply reliability because of its intermittent and unpredictable nature. With storage, agencies could provide a drought buffer that would support some added economic activity, but not within the context of Article 21(g)(1), as explained above. Ultimately, incorporating Article 21 water into the assessment of water supply reliability is a local decision based on specific local circumstances and facts. Although the Department is aware of storage of Table A and Article 21 water which may lead to additional local development due to the drought "buffer" from

additional stored supplies, the Department is not aware of any local water supplier or local governmental agency that relies upon "the sustained delivery of surplus water" to support the development of a local economy. See FEIR Subsection 9.2.5.2.2.

During the preparation of the DEIR, and in trying to determine how to comply with the court's order on Article 18(b), the Department reviewed various ways to invoke Article 18(b) including invocation of Article 18(b) with no delivery of Article 21 water to SWP contractors. The invocation of Article 18(b) without Article 21 deliveries was not considered in detail in the DEIR because the Department concluded that it would not meet any of the objectives of the Monterey Amendment and because it would be in conflict with the basic terms of the long-term water supply contracts. See discussion on pages 11-5 and 11-6 in the DEIR. The Department also determined, after considerable discussion, that it would not have invoked Article 18(b) in this manner at any time in the past, nor into the near-term future. However, in response to comments, the Department has developed an analysis of the effects of operating the SWP with Article 18(b) invoked and with limited or no Article 21 water delivered to SWP contractors. Although the Department believes that Article 18(b) would not have been invoked in this way, nevertheless, this analysis provides additional information to the public and to decision-makers on the effects of not delivering water to SWP contractors that would otherwise be available under Article 21. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3.

As stated in the DEIR on page 9-11, for the Monterey Plus EIR, the "paper water" problem is really a question of whether local planners recognize the limitations on the reliability of SWP supplies and more specifically whether the Monterey Amendment contributed to misunderstandings of water reliability. Some comments suggest that elimination of Article 18(b) removed a provision that could empower the Department to reduce project Table A amounts to reflect the "safe yield" of the project and that Article 18(b), and the concept of safe or firm yield would protect the Delta or to make local government aware of the limitations of SWP water supply. Like most other surface water supplies, SWP water supplies fluctuate, so in some years more water may be available and in other years less water may be available. The Department has determined that invocation of Article 18(b) and returning to the application of the concept of safe or firm yield in determining the amount of Table A that can be reliably allocated each year, except in extreme droughts, is not a reasonable way to protect the Delta or to make local government aware of the variability and limitations of SWP water supply. Such an action would not alter Delta exports, would not alter water supply reliability, nor would it alter the total amount of SWP water allocated to contractors. The action would decrease Table A allocations and commensurately increase Article 21 allocations, both as scheduled surplus and as unscheduled (interruptible) supplies. See FEIR Subsection 13.2.2.3.

As discussed in FEIR Chapter 7, Subsection 7.2.2.1.3, the Department considers current regulatory processes and evolving Delta constraints to be the appropriate means of protecting the Delta and other environmental resources. As discussed in FEIR Chapter 9, Subsections 9.2.4 and 9.2.6, the Department considers processes such as the Reliability Report (which addresses the impact of climate change and Delta pumping restrictions) and other means of urban water management planning to be a more effective means of making local government aware of the variability and limitations of the SWP water supply. See FEIR Subsection 13.2.2.3.

### 17.2.8 Kern Water Bank

This response addresses the following comments: 19-7, 20-3, 21-6, 27-3, 28-1, 29-4, 33-1, 37-1, 38-1, 39-1, 40-2, 42-9, 43-2, 43-3, 45-2, 46-1, 47-6, 51-1, 53-1, 54-3, 55-1, 57-4, 60-2,

63-2, 64-12, 65-11, 65-21, 66-2, 66-11, 66-13, 67-7, 67-9, 67-11, 67-15, 67-17, 67-21, 67-30, and 67-36.

Some comments state that the transfer of the KFE property to KCWA and then to the KWBA is a give away to private interests of the state-owned KWB, the largest water storage facility in California which was created and developed at the cost of several millions of public dollars and that the KWB is an important public resource which should remain in public ownership. Others express concern over privatization of water and the loss of public control over water storage areas that has lead, in effect, to ownership of a publicly held resource by private business interests. Some comments state concern about the local control of the KWB Lands and others state that the State should oversee and operate the KWB rather than hand it over to another entity. Comments claimed that the Kern Water Bank is controlled by private corporations and that the proposed project allowed corporate controlled water districts to trade paper water (Table A amounts) to southern California. Other comments suggest that new transfer rules allow contractors to sell water outside service areas and that this means privatization of the SWP and loss of accountability to the state.

## Kern Water Bank Discussed in FEIR Chapter 16

See FEIR Subsections 16.2.1 for summary of the planned development of the KFE property prior to transfer, 16.2.2 regarding the Department's decision to transfer the KFE property, 16.2.3 for the effect of the transfer on contractors SWP water supply, 16.2.4 for clarification of the retirement of KCWA Table A amounts in exchange for the KFE property, FEIR Subsection 16.2.5 on the adequacy of the CEQA analysis in the DEIR, 16.2.6 on environmental impacts resulting from a State-owned KFE. 16.2.7 on environmental impacts resulting from a locally-owned KFE, 16.2.8 on KWBA as a public entity, 16.2.9 on assurance regarding the KFE property, 6.2.10 on land use restrictions on the KWB, and 16.2.11 on KWB Lands and water marketing.

## Decision to Transfer KFE Property

Some comments asked why the Department decided to transfer the KFE property and whether the Department had the authority to transfer the property.

As stated in Appendix E of the DEIR (page 1) the Department encountered many legal, institutional, and political impediments to implementation of a groundwater storage facility on the KFE property. In 1993, uncertainties regarding the proposed groundwater facility ultimately convinced the Department to halt feasibility and design work on the project. These uncertainties included proposed revisions of Delta water quality standards and measures to protect threatened and endangered species, which would affect the SWP's ability to pump water from the Delta for recharge on the KFE property. Expected changes in arsenic standards or drinking water also raised questions regarding the ability of the project to meet water quality standards for pump-in to the California Aqueduct. In addition to environmental and water quality issues, the Department and KCWA could not reach agreement on measures to comply with CWC Section 11258, which required approval of local agencies for development of State groundwater banks in their area. These difficulties led the Department to question proceeding with the development of a KFE groundwater storage facility. See also the Department's Bulletin 132-94. See also the Department's Bulletin 132-94. Once the transfer of the KFE property occurred, the KWBA assumed the responsibilities of the property and the development of the KWB Lands. Such responsibilities included finalizing an HCP/NCCP plan that had been proposed by the Department. See FEIR Subsection 16.2.2.

No SWP water was banked/stored on the KFE property prior to its transfer. Several comments have confused an earlier Department-proposed KFE groundwater storage program, and have stated that the Department gave away 1 million AF of SWP water. As noted in the preceding subsection, the Department-proposed 1990 KFE groundwater storage program was to have a 350,000 AF storage capacity. However, in the 1980's the Department did consider a 1 million AF KFE storage program. This storage capacity does not imply that 1 million AF of water existed in the groundwater basin. In 1995, KCWA requested and was granted the use of the KFE property for emergency spreading of water to mitigate projected flooding of agricultural lands due to high flows on the Kern and Kaweah rivers (DEIR Appendix E, Section III.B), but this was the only water recharged on the property prior to its transfer, and this was non-SWP water. See FEIR Subsection 16.2.2.

The transfer of the KFE property to KCWA was included in the Monterey negotiations and principles. In exchange for the transfer of the property to KCWA, and Dudley Ridge WD permanently retired a total of 45,000 AF of agricultural Table A amounts. It has been suggested that the 45,000 AF of Table A transferred is "paper water" and did not result in a benefit to the SWP because it was not available in all years. The 45,000 AF of Table A amount that was retired belonged to agricultural contractors that were requesting full Table A amounts when available prior to the 45,000 AF retirement. As Chapter 9 of the DEIR mentions, the ability of the SWP to deliver water is based on several factors---the availability of the water from the source, the availability of conveyance, and the level and pattern of water demand in the delivery service area. Prior to its retirement, the delivery of the 45,000 AF Table A amount was dependent on the above criteria, no different than any other Table A amount. Although the 2007 State Water Project Delivery Reliability Report cites that under 2005 conditions average Table A delivery from the Delta is 2.818 million AF, allocations of Table A water during 2005 and 2006 (above normal and wet years) were 90 percent and 100 percent respectively, although Table A deliveries were just under 2.8 million AF in each of those years, and total deliveries were about 3.6 million AF in each of those year. Although it is true that the full 45,000 AF Table A amount can only be delivered some of the time, it can be delivered when it is available. Like all other Table A amounts, only a proportionate share is delivered each year depending upon hydrology and environmental constraints. See FEIR Chapter 9 for more discussion on reliability of SWP water supplies. See FEIR Subsection 16.2.4.

## Adequacy of CEQA Analysis

A number of comments argued that the transfer of the KFE property altered a fundamental purpose of a State-owned water bank by shifting control of the water bank from public to quasi-private, or local control or that the Department did not analyze the full impact of the transfer. Some comments raised questions about whether the land should have been transferred at all since a State-owned KFE could have supplemented SWP deliveries. Other comments suggested that the KFE should have been used for statewide environmental benefits. See FEIR Subsection 16.2.5.

The DEIR provides two analyses of the KFE property transfer – one pursuant to CEQA and one pursuant to the Settlement Agreement. Under the CEQA analysis, the DEIR examined the impacts of local development of the KWB Lands (see FEIR Subsections 16.2.6 and 16.2.7). The DEIR also examined the impacts of developing and operating the same property for SWP use as part of several of the no project alternatives (i.e. the KFE property). The transfer did not alter a fundamental purpose of the KFE property when owned by the Department. See FEIR Subsection 5.2.1.2. The same land is involved for similar purposes – to store surplus water during years of abundant supply for extraction and use in dry years by developing a water recharge and recovery facility, which would provide intermittent wetlands. To the extent that the

property is used to store local supply, it can be used to supplement KCWA's SWP supplies in times of shortage. To the extent that it could have been used for SWP supply, it could have provided more SWP water to all SWP contractors in times of shortage. The difference in the delivery impact of the water bank used for local purposes, or used for SWP purposes can be seen by comparing the impacts of the proposed project with No Project Alternative 1. The only difference between these two projects is whether the KFE property is operated to improve reliability of local supplies or reliability of SWP supplies. See FEIR Subsection 16.2.5.

As stated in the DEIR on page 11-31 and in FEIR Subsection 16.2.3, a State-owned bank under 2003 conditions would reduce deliveries to contractors in wet years by about 0.5 percent because water that would otherwise be delivered to contractors as Article 21 water would instead be placed in storage in the water bank and would increase deliveries to each contractor in critically dry years by about 2.5 percent (37,200 AF) because the Department would be able to withdraw water from the bank to supplement deliveries of Table A water to all SWP contractors. Under 2020 conditions the existence of a State-owned KFE water bank would reduce deliveries to contractors in wet years by about 0.6 percent and would increase deliveries to each contractor in critically dry years by about 4 percent (53,200 AF). The existence of a State-owned KFE water bank would have no effect on total deliveries to contractors averaged over the 73-year period of hydrologic record. Even though this pumping would have been in compliance with then-current and future more stringent regulatory requirements, the FEIR reflects a potentially significant impact to Delta fisheries in DEIR Table 11-23. The Department would have provided appropriate mitigation for any incidental take of winter-run salmon. Regardless, the Department could only move water to a State-owned KFE storage project as allowed under its permits, that is, the requirements of the D-1641 and other regulatory constraints. See FEIR Subsection 17.2.6.1.

As noted in DEIR Section 5.5, the KWB Lands were developed as a locally-owned facility on land transferred from the Department as part of the Monterey Amendment. As noted in DEIR Section 6.4.1, the KWB Lands could represent new south of delta storage for KCWA that would not be available under the baseline scenario and thus could potentially increase deliveries and Delta diversions. As a locally-owned bank, KCWA would request SWP water and bank a portion of such amount in the KWB Lands, typically in wetter years. In trying to determine what deliveries KCWA could have taken absent the KWB Lands, the Department asked KCWA to review the deliveries of SWP water to the KWB Lands and determine how much of that water it could have stored in other storage programs to which KCWA had access that were existing at the time of delivery. The other existing storage programs KCWA considered were limited to projects in the Kern Fan area, including: the Berrenda Mesa Project; City of Bakersfield 2800 acres; and the Pioneer Project, including the Kern River Channel. KCWA conducted a detailed monthly analysis of these storage programs, looking at the historical deliveries that were made to those programs, estimating the remaining recharge capacity that would have been available for additional deliveries, and comparing the SWP deliveries to the KWB Lands to this remaining available recharge capacity. The results of KCWA's analysis show that from 1995 through 2004 all SWP water deliveries to the KWB Lands by KWBA participants located within Kern County could have been recharged in available capacity in these other Kern Fan projects (see Section VII of Appendix E of the DEIR). This conclusion, while based on information received from the KCWA, was independently reviewed at the time the DEIR was prepared and the DEIR concluded that all SWP water delivered to the KWB Lands by KWB participants located within Kern County could have been delivered to KCWA if the Monterey Amendment's transfer of the KFE property had not happened (FEIR Appendix K, page 13). This conclusion was again independently reviewed and confirmed by the Department during the development of the FEIR.

Therefore, there could be more water exported and therefore greater potential impacts on the Delta from a state-owned KFE water bank in comparison to a locally-owned KWB Lands. The terrestrial impacts would be of a similar magnitude for either a locally-owned or State-owned project. See FEIR Subsections 16.2.5, 16.2.6, and 16.2.7.

Some comments suggest that the purpose of the KFE property should have been to serve as a drought mitigation bank or to help balance the State's water supply to cities, farms, and fish, or to manage water resources for a variety of public purposes, including drought storage for emergency preparedness, urban uses, environmental protection, river restoration, and water quality. The Department does not agree. At the time of the Monterey Amendment, the Department owned the KFE property. It had purchased the property with the idea of storing surplus water during years of abundant supply for extraction and use in dry years by developing a water recharge and recovery facility. It had considered a number of options for the lands including the option of transferring the lands to local control. It had not considered using the lands for other purposes such as environmental protection or drought storage for emergency preparedness. At the time of the transfer there was no operation of the lands as a water bank except for a pilot project and there were serious questions about the economic feasibility of operating the KWB as an SWP facility and about whether the Department and KCWA could agree on an operating agreement as required by CWC Section 11258. While the Department could have chosen a broader project and objective such as a variety of uses of a State-owned KFE, it did not and it was under no obligation to do so. See FEIR Subsection 5.2.3.1 regarding the fact that the EIR does not need to consider broader objectives. See FEIR Subsections 16.2.1 and 16.2.5 on the history and purposes of the KWB Lands.

As owner of the KFE property, the Department had the initial responsibility to decide what it wanted to do with the land. The lead agency has the authority and responsibility to initially frame the scope of its proposed purpose and objectives. Although CEQA requires an agency to consider mitigation measures and alternatives that would meet most of its project objectives, the law does not require an agency to examine a project and objectives that are completely different from the one it has chosen to pursue nor is it obligated to look a broader issues and concerns. The court in *PCL v. DWR* recognized that the Department might approach the environmental review of the project in a different or more comprehensive manner because of its statewide perspective and knowledge. After independently considering and reviewing the original Monterey Agreement objectives, the Department limited the proposed project to the objectives listed on pages 4-1 and 4-2 of the DEIR. The proposed project and objectives of the Monterey Amendment have stayed basically the same as those of the Monterey Agreement – changes to the contract that arose primarily out of concerns among the urban and agricultural contractors and the Department about water allocation and related issues pertaining to the management and financing of the SWP. The changes, while significant for the contractors and the Department, do not "fundamentally change" the SWP's "essential mission nor it's statewide environmentally accountability." See FEIR Subsections 5.2.1.2, 5.2.3.1, and 16.2.5.

The DEIR analyzed the impacts of the transfer of land in the relevant sections of Chapter 7. It concluded that although there could be significant adverse impacts from development and operation of the KWB Lands on terrestrial and cultural resources, they would be mitigated under the existing mitigation agreements. See DEIR page ES-5 and Table ES-1 for summary of impacts and mitigation. The DEIR also looked at the effects of use of a state-owned KFE storage facility to improve the reliability of SWP deliveries in dry periods instead of for local use. These are analyzed and discussed in DEIR Chapter 11 as NPA1, CNPA3, and CNPA4. See also FEIR Subsections 16.2.6 and 16.2.7 for clarification of the environmental effects of the use of the property for SWP or local use. See FEIR Subsection 16.2.5.

As discussed on page 4-12 of the DEIR, the Settlement Agreement required the Department to include, in addition to the CEQA analysis, an independent study of the impacts of the transfer, development, and operation of the KWB Lands "in light of the Kern environmental permits that have been issued" (federal ESA permits issued for the KWB). This study is included in Appendix E of the DEIR. The analysis concluded that the "KWB is operating as intended and within the confines of the HCP/NCCP." See Appendix E, page 63. The development of the KWB Lands by the KWBA is discussed in Section V.C. in Appendix E. See FEIR Subsection 16.2.5.

Once the land was transferred, the KWBA, the owner of the KWB Lands, had an obligation to comply with CEQA for any changes in use of the property. The DEIR discussed the environmental documentation that has been completed to date for the transfer of the State-owned KFE property and after, as the locally-owned KWB Lands project, in DEIR Appendix E. The Department is not aware of any plans at this time to prepare any further environmental documentation concerning the locally-owned KWB Lands project. The Department will review, as appropriate, any additional environmental documentation prepared by KWBA or other agencies. To the extent appropriate, later environmental documents may use information in this EIR to provide CEQA-required information. This EIR is not intended to cover additional environmental review, if necessary, including specific operating parameters of the locally-owned KWB nor does it present a detailed analysis of how the water in the bank is stored or allocated. See FEIR Subsections 4.2.2.3.2 and 16.2.5.

## KWBA Authority as a Public Agency and Arrangements with Other Entities

Some comments expressed opposition to what they call a "give away to private interests" of the KFE property which was created and developed with public dollars, or express concern that the KWBA is managed by a private interest or dispute the arrangement among the KWBA and surrounding entities. See FEIR Subsection 16.2.8.

The KWBA is a public agency subject to open meetings and other laws applicable to public agencies. As a public agency the KWBA is subject to CEQA. The KWBA currently has public board meetings on the third Monday of each month at 7 a.m., at 1620 Mill Rock Way Suite 500, Bakersfield, California. The website address is http://www.kwb.org/main.htm. The KWBA includes its annual financial statements in the annual compliance reports that it submits to USFWS and DFG. See FEIR Subsection 16.2.8.

Some of the comments argue that members of the KWBA are private entities; that the KWBA serves the interests of private corporations; and that the transfer of the KFE property has been environmentally destructive. Others argue that the KWB Lands are not being used in the way local interests originally contemplated it use. The nature of the management and membership of the KWBA and the relationships with its participants and surrounding land owners relate primarily to the KCWA entities and their share of use of the KWB Lands. For the most part, these issues are beyond the scope of this EIR because although they may public policy issues, they are generally not environmental issues. Economic or social effects of a project are not treated as significant effects on the environment unless they cause physical changes to the environmental. To the extent that these concerns relate to the environmental impacts of the transfer of the KWB Lands, they are covered in the EIR (see FEIR Subsections 16.2.5 and 16.2.7). To the extent that these concerns relate to each party's share or use of the project, including private parties, these are primarily social and economic issues that pertain to the contractual and other arrangements among water users in Kern County, and legislative issues that pertain to how water entities are formed and operated. See FEIR Subsection 16.2.11 for a

discussion of the KWB Lands and the issue of water marketing. See FEIR Subsection 4.2.1.3 for more discussion on the scope of the EIR. See FEIR Subsection 16.2.8.

The following information is included in this FEIR to provide additional background and information to help the public and decision-makers understand the environment and context in which the Monterey Agreement and the Monterey Amendment were negotiated. The KWBA was created to own, develop, operate, and manage the KWB. Its Member Entities were members of the KCWA and Dudley Ridge WD, the two water districts that collectively retired 45,000 AF of Table A amounts as part of the Monterey Amendment (see FEIR Subsection 16.2.4). Their ownership allocation in the KWBA mirrors their share of Table A that was retired (see Table 3 in DEIR Appendix E). Westside Mutual Water Company is a not a public agency and the water company may be composed of members that are private corporations, including Paramount Farming. However California law permits mutual water companies to be a member of a joint power authority. As a water service provider to landowners within the Belridge WSD and Lost Hills WD, Westside Mutual Water Company was allocated Table A amounts which were retired and which gave it the right under the KWBA Joint Powers Agreement to have a similar share in the KWBA (see DEIR Appendix E, pages 13-15). See FEIR Subsection 16.2.8.

The KWBA operates the KWB Lands subject to the requirements of the Memorandum of Understanding Regarding Operation and Monitoring of the KWB Groundwater Program (KWB MOU). This agreement was a prerequisite to the KWBA member entities' agreement to retire the 45,000 AF Table A amounts in exchange for the transfer of the KFE property from the Department for the member entities' development of a water bank. The KWB MOU parties include the KWBA, its member entities, and the Adjoining Entities (the districts surrounding the KWB Lands). The overall objective of the KWB MOU parties is that the "design, operation and monitoring of the Project be conducted and coordinated in a manner to insure that the beneficial effects of the Project to the Project Members [Member Entities] are maximized but that the Project does not result in significant adverse impacts to water levels, water quality or land subsidence within the boundaries of the Adjoining Entities." The adjoining entities include Buena Vista WSD, Rosedale-Bravo WSD, Kern Delta WD, Henry Miller WD and West Kern WD. The MOU prescribes various measures to protect water levels and water quality and establishes a Monitoring Committee which includes several basin stakeholders including the KCWA and all adjoining water districts (see DEIR Appendix E, pages 15 and 16). See FEIR Subsection 16.2.8.

## KWB Lands and Water Marketing

Several comments indicated that the KWB Lands have been operated primarily for water marketing purposes and financial gains. Comments assert that the proposed project is so that big agribusiness interests can profit from marketing the water and that those selling their water south of the Delta are making a profit on it.

Economic or social effects of a project are not treated as significant effects on the environment unless they cause physical changes to the environmental. Financial gain may be an intended or incidental result of the Monterey Amendment, but it is only a CEQA issue if it could result in potential significant adverse environmental impact. To the extent that these comments relate to the environmental impacts of the transfer of the KWB Lands, they are covered in the EIR (see the discussion below and FEIR Subsections 16.2.5 and 16.2.7). In addition some of the following information is included to provide additional background and information to help the public and decision-makers understand the environment and context in which the Monterey Agreement (and the Monterey Amendment) was negotiated. See FEIR Subsection 16.2.11.

The KWB Lands is part of an extensive and complicated water management system in the San Joaquin Valley which includes numerous water management exchanges and same landowner transfers (i.e. a landowner with water in two different water districts). See DEIR Appendix E, pages 26 and 27. Monterey Amendment-facilitated storage outside the service area has all taken place in Kern County – although only a small portion has taken place in the KWB Lands (see DEIR 6-55 and 6-56). From 1995 to 2005, the KWBA delivered approximately 1.3 million AF of water for recharge. Most of this recharge occurred during 1995 to 1998 and 2005, years in which precipitation was above average. Sixty percent of the amount recharged came from the SWP (only a very small percentage of that is Dudley Ridge WD's SWP water for storage outside of its service area; the rest is use by KCWA of its SWP water in its SWP approved service area), 13 percent from the CVP Friant-Kern and 27 percent from the Kern River (local sources). Water stored in the KWB Lands has been recovered by the KWBA participants either for their own direct use or for sale to others. From 1995 through 2005 (years including or following dry years), recovery for participants totaled 138,224 AF. During the same period, water sales totaled 423,320 AF. Three quarters of this amount was sold to the EWA. The remainder went to agricultural entities within the San Joaquin Valley, a wildlife refuge, a power plant located within Kern County, and four percent made available to adjoining water districts. KWB Lands water operations are described in DEIR Appendix E, pages 26-37. No water from the KWB Lands was sold to SWP M&I contractors. See FEIR Subsection 16.2.11.

Transfers, exports or sales of water from the KWB Lands are also likely to be limited in the future. There is no plan at this time to provide for additional public funding to continue EWA. Since 2008, public funding has been insufficient to provide replacement water to compensate for reductions in Delta pumping to protect Delta fish species as has been the case in prior years. See FEIR Subsection 7.2.2.1.5. As noted in Section V(B)(5) of DEIR Appendix E (pages 16 and 17), priorities for the water from the KWB Lands are for KCWA entities and Dudley Ridge WD. Any excess capacity beyond that needed for these priorities can be used by others only under terms and conditions acceptable to KWBA and KCWA. Therefore any transfers from the KWB Lands require the approval of KCWA. Department approval is required for conveyance of banked SWP water through SWP facilities for return to Dudley Ridge WD or to downstream KCWA member units. CVP contracts place limitations on potential sales of Friant-Kern CVP water. A place-of-use restriction requires the use of banked Friant-Kern groundwater within the CVP place of use. Consequently, these agreements and restrictions limit the amount and classification of water that may be transferred to water agencies outside of Kern County. See FEIR Subsection 16.2.11.

As discussed in FEIR Subsection 16.2.5, once the land was transferred the KWBA as owner of the KWB Lands had an obligation to comply with CEQA for any changes in use of the property. See discussion in FEIR Subsection 16.2.1 on the Addendum prepared by KWBA in 1997. The Monterey Plus EIR is not intended to cover additional environmental review, if necessary, including specific operating parameters of the locally-owned KWB nor does it present a detailed analysis of how the water in the bank is stored or allocated. See FEIR Subsection 4.2.2.3.2. As discussed in FEIR Subsection 8.2.2.2, even though the Department could identify some of the local decisions that may rely on water made available from the proposed project, these decisions require extensive information about local facilities, local water resources, and local water use. Under existing law, the Department does not have the authority to control land use decisions involving private activities or to oversee land use regulation by cities and counties. Moreover such an analysis would require decisions about water supply and use that traditionally have been made by local water service agencies acting under their powers granted in the CWC. These decisions are within the authority and control of and properly deferred to local decision-makers where specific projects can be more fully described and are ready for detailed analysis. The authorities of the local agencies and of the Department would need to be changed by

legislation before the Department could exercise the suggested powers over local water service agency decisions. The Department believes local officials should continue this role. See FEIR Subsection 16.2.11.

The transfer of the KFE property to KCWA and subsequently to KWBA has given the KWB Lands participants more flexibility in the storage and management of their water supplies. It has provided more flexibility of total water supplies not only from the SWP, but water supplies from the Friant-Kern system, and the Kern River. In very wet years, significant quantities of flood waters from the Friant-Kern system and the Kern River that otherwise would be diverted into the California Aqueduct Intertie, are available for recharge in the KFE area, since upstream water right holders cannot beneficially use the water. As noted in DEIR Appendix E, Section VII, KCWA could have stored all SWP water deliveries from 1995 though 2004 in other Kern Fan projects, absent the KWB Lands. Additionally, it is not unrealistic to think that KCWA member units would have expanded their existing recharge projects or created new recharge opportunities due to the favorable geology for groundwater banking in Kern County, and their location in relation to the SWP, the Friant-Kern, and the other rivers that bring occasional high flows into Kern County. See FEIR Subsection 16.2.11.

As noted in DEIR Subsection 6.4.2.1 on pages 6-21 through 6-28, the period from 1996 through 2005 had more favorable hydrology, and as shown in Table 6-8, seven of the 10 years were at or above the “Above-Normal” water year classification. KCWA and its member units not only can store water in the KWB Lands, but also in groundwater storage facilities near and adjacent to the Kern River. This abundant supply in 2005 and 2006 created numerous recharge opportunities for KCWA. There are now close to 20 groundwater recharge sites in the Southern San Joaquin Valley portion of Kern County; with about six groundwater recharge projects adjacent to the Kern River and near the KWB Lands. See FEIR Subsection 16.2.11.

Once recharged into a groundwater basin, the various sources of water occurring in a groundwater basin cannot be differentiated. Groundwater is a shared resource that can be pumped by users for beneficial use. In California, there is no mandatory State groundwater management statute. Through time however, six methods of groundwater management have evolved, three of which deal with overlying property rights, court-ordered rights, and city and county ordinances (DWR, “Groundwater Management in California: A Report to the Legislature Pursuant to Senate Bill 1245 (1997),” dated 1999, Chapter 1). For example, a permanent county ordinance requires environmental review of any groundwater transfer out of the southeast portion of Kern County, which overlies the Lahontan Basin. See FEIR Subsection 16.2.11.

### 17.2.9 Kern Water Bank – Endangered Species, Terrestrial Wildlife and Educational and Recreational Opportunities

This response addresses the following comments: 33-1, 37-1, 42-9, 67-30, and 67-36.

Some comments suggest that the KWB area can provide a place for city kids to see endangered species. Some comments suggest that the KWB should be used for recreational activities, especially hunting. Several comments expressed concern that the KWB Lands and other facilities made to store water will further reduce endangered species habitat.

#### Impacts Related to Endangered Species

KCWA prepared an addendum to the Monterey Agreement EIR which addresses the environmental issues related to the development and construction of a KWB Lands that had

been addressed in the programmatic EIR. The primary focus of the addendum was the "Kern Water Bank Habitat Conservation Plan" (HCP) and the Natural Community Conservation Plan (NCCP), which primarily addressed the impacts of the project on endangered species. As noted in DEIR Section 7.4.2.5, the USFWS and CDFG approved the HCP/NCCP in October 1997. The federal and state HCP and NCCP programs seek to make the permit application process more efficient, while still complying with current federal, state and county laws that protect threatened or endangered species. See FEIR Subsection 16.2.7.2.

As noted on DEIR page 7.4-26, "Because the KFE property is under a HCP/NCCP, the KWBA is required to follow specific guidelines to prevent take of special-status species and to enhance and preserve the natural habitat currently present." Under the conditions of the KWB HCP/NCCP, the KWBA is required to prepare annual reports summarizing activities within the KFE property including updates on the water supply management and related activities; any amendments to the HCP/NCCP; a summary of any take occurrences; land and habitat management and mitigation measures; monitoring programs and studies; mitigation measures and cooperation with wildlife agencies; and the status of conservation credits. See FEIR Subsection 16.2.7.2.

The KWB HCP/NCCP planning area comprises the entire 19,900-acre KFE property. A breakdown of permitted land uses is shown in DEIR Table 7.4-4 on page 7.4-20. The KWB HCP/NCCP allows for the incidental take of up to 161 individuals of rare, threatened, or endangered species with documented occurrences or potential habitat in the project area that may be affected by the proposed project, or species that do not currently occur and for which habitat does not currently exist in the project area, but for which habitat may be created in the future. See FEIR Subsection 16.2.7.2.

During the 1996 to 2003 period of analysis, the DEIR concluded that KWBA's implementation of the mitigation measures reduced the potential impacts on terrestrial biological resources to a "less than significant" level. The DEIR describes the same impacts as potentially significant but concludes that the same mitigation measures required in the KWB HCP/NCCP will be implemented in the future and therefore the impacts to terrestrial and cultural and paleontological resources will be less than significant (see DEIR pages ES-17 through ES-26). See FEIR Subsection 16.2.7.2.

The KWBA is required to prepare and submit annual reports to the USFWS and CDFG. The report includes but is not limited to a summary of mitigation measures implemented, results from the implementation of monitoring programs, avoidance, and minimization measures. The HCP/NCCP also requires the KWBA to monitor major construction activities by a qualified biologist. See FEIR Subsection 16.2.7.2.

As discussed on page 4-12 of the DEIR and in FEIR Subsection 16.2.5, the Settlement Agreement required the Department to include, in addition to the CEQA analysis, an independent study of the impacts of the transfer, development, and operation of the KWB Lands "in light of the Kern environmental permits that have been issued" (federal ESA permits issued for the KWB). This study is included in Appendix E of the DEIR. The analysis concluded that the "KWB is operating as intended and within the confines of the HCP/NCCP." See Appendix E, page 63. The development of the KWB Lands by the KWBA is discussed in Section V.C. in Appendix E. See FEIR Subsection 16.2.7.2.

A landowner near the KWB states that the KWBA has conscientiously avoided significant adverse impacts on sensitive habitat and special-status terrestrial biological resources. He

states that they have enhanced not only the biological diversity of the area, but the numbers of all species. See Comment 33-1.

### Recreational and Education Uses

The DEIR did not identify any significant adverse recreational impacts associated with the KWB and none were identified during the comment process. Several comments, however, were made during the comment process with regard to what KWBA is doing about recreation and education.

A landowner near the KWB states that the KWBA has been willing to provide "opportunities to residents of Kern County and others to view and appreciate the species and habitats which they have been protecting." The Tulare Basin Wetlands Association (owners of private wetlands) states that it believes having the resource in the area for migratory birds and local wildlife is a benefit to all. KWBA stated that it does allow public hunts which go through the CDFG which has hunts when conditions are appropriate. It also stated that it supports educational activities and does tours of the water bank as many as three times a month and that it is looking into finding grant money to build an educational center. See Comments 33-1, 37-1, 67-36.

## 17.2.10 Alternatives

### 17.2.10.1 Alternatives that Meet Most Objectives

This response addresses the following comment: 64-36.

Some of the comments suggest that in order for an alternative to be evaluated in detail in the DEIR, the DEIR criteria require that it must meet all of the stated project objectives.

Some of the comments suggest that the DEIR criteria require that an alternative must meet all of the stated project objectives in order for it to be evaluated in detail in the DEIR, Other comments seemed to indicate that as long as an alternative met some of the objectives, it should be analyzed in the EIR. The proposed project objectives were established taking into consideration the whole of the proposed action. The history and description of both the Monterey Amendment and the Settlement Agreement describe the negotiation process leading up to both agreements. Because they were negotiated agreements, all parties to the agreements must have perceived a benefit or there would have been no reason to sign the agreements. The reasons for signing may have been different for each party, but each one had to believe that it would benefit from the changes as a whole. Some parties may have given up some rights or benefits in exchange for other benefits. These benefits are incorporated into the objectives. If any component is removed or any objective is not met, one of the parties is likely to have not gained the benefit it thought it was gaining from signing the agreement. See DEIR Chapters 3 and 4 and FEIR Subsection 11.2.1. See FEIR Subsection 5.2.3.1.

The California Supreme Court recently reaffirmed in *In re Bay-Delta* (pages 1162 through 1169, see especially page 1165) that an EIR's consideration of alternatives is based on the rule of reason considering the facts and circumstances involved. The focus of the Supreme Court was not on whether a rejected alternative met some or most of the objectives but rather on whether the lead agency has reasonably determined that the rejected alternative cannot achieve the project's underlying fundamental purpose. The Supreme Court recognized that, in certain instances, when the proposed project reflects a negotiated solution to a problem that provides benefits for different parties, the CEQA analysis can reject alternatives that do not achieve all of

the objectives concurrently. See FEIR Chapter 11 for more discussion on the DEIR alternatives and the rule of reason. See FEIR Subsection 5.2.3.1.

### 17.2.10.2 Water Conservation and Reducing Demand

This response addresses the following comments: 19-7, 24-5, 25-5, 26-8, 32-2, 39-1, 44-4, 46-4, 48-1, 49-1, 52-4, 58-3, 59-2, 61-4, 62-1, and 66-23.

Some comments claim that increased conservation and more efficient water management practices could reduce the demands for water by SWP contractors. The comments point out that for a variety of physical, hydrologic and regulatory reasons, higher levels of water conservation and efficient water management practices are likely in the future. Some comments have proposed water conservation and recycling as an alternative to increasing water supplies.

Water Supply Reliability and Delta Problems not Solved by Reduced Demand

The Department agrees that higher levels of water conservation and efficient water management practices are likely in the future. Conservation is an essential element in facing California's water challenges. However, higher levels of water conservation and more efficient water management practices are still unlikely to reduce the demand for SWP supplies considering the consistent increase in population within the SWP service area and reduction in the supply of other sources of water. See FEIR Subsection 15.2.3. In addition, conservation alone cannot adequately address climate change and the declining health of the environment, all of which continue to reduce water supply reliability in the Delta. See FEIR Subsections 6.2.2 on climate change and changing hydrologic conditions and Subsection 7.2.2.1 on changing regulatory conditions. See FEIR Subsection 11.2.4.1.2.

Increasing SWP Water Supplies not an Objective of the Proposed Project

Increasing water conservation and recycling within SWP contractor's service areas would not meet most of the objectives of the Monterey Amendment including the principal objective that was to resolve disputes among the contractors with respect to the allocation of SWP water, particularly during dry periods. The Monterey Amendment reallocates water among the SWP contractors but has little effect on overall availability of SWP water. Consequently, increasing water conservation and recycling to curb water demand within the SWP service area may help local water suppliers meet local demand, but it does not represent an alternative to the proposed project. The DEIR did not include an analysis of reducing demand as an alternative, nor did it evaluate the implications of reduced demand for SWP supplies. Such an evaluation of reducing demand would require a study of each of the 29 SWP contractors and an evaluation of the impacts on each contractor of methods of reducing demand. Demand reduction for the 29 SWP contractors is not an objective of the proposed project and is beyond the scope of this EIR. As discussed in the DEIR on pages 11-5 and 11-6, demand reduction was an alternative that was rejected because it would not meet any of the project objectives as listed in DEIR Subsection 4.3.1. See FEIR Subsection 11.2.4.2 for a discussion on the effects of reducing supplies by reducing Delta pumping. See FEIR Subsection 11.2.4.1.1.

Alternatives suggested that include reducing demand are not alternatives to the proposed project, but rather different projects with different objectives designed to address issues related to operation of the SWP as a whole or to address issues only tangentially (or not at all) related to the SWP or the Monterey Amendment. As discussed in FEIR Subsection 8.2.2.2, although the Department does not have statutory authorization to establish mandatory requirements

regarding water reliability and growth, it supports local and regional water planning and conservation efforts through statewide planning and through grants and local assistance programs. Demand reduction and water conservation strategies are important tools in water management planning and the Department is involved in a number of legislative and administrative actions designed to provide a regional or statewide approach to these strategies. See DEIR pages 11-5 through 11-7. The Department is taking a leadership role and is actively involved in many of these efforts. See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection. As discussed above, such measures are not alternatives to the Monterey Amendment and implementation of such measures would not be affected by the Monterey Amendment. See FEIR Subsection 11.2.4.1 for more discussion on the issue of demand reduction.

See also FEIR Subsection 17.2.5.9 for further discussion on demand. See also FEIR Subsection 17.2.4.4 above for a discussion on the Department's role in other water policy issues, including water conservation.

### 17.2.10.3 Reducing Exports

This response addresses the following comments: 19-7, 24-5, 25-5, 26-8, 32-2, 39-1, 44-4, 46-4, 48-1, 49-1, 52-4, 58-3, 59-2, 61-4, 66-12, and 66-23.

Some comments state that there have been significant increases in pumping from the Delta since implementation of the Monterey Amendment and that the EIR should include an alternative of reduced supply.

<u>No Increased Delivery Increases from Table A Transfer or Altered Allocation Changes</u>

As discussed in FEIR Subsection 15.2.2, because there was no change in total requests for Table A deliveries (except a small decrease prior to 2001 as the demand of the urban agencies caught up to the new supplies due to urban growth), there are no delivery increases attributable to the Table A transfers or to altered allocation procedures. However, under the proposed project there is a potential for increased demands by some urban agencies as a result of Table A transfers and the water supply management practice to store water outside of SWP contractor service areas. The potential changes in demand for SWP water and the growth-inducing potential resulting from the water supply management practices and the Table A transfers are reflected and analyzed in FEIR Subsection 8.2.4 where the added growth supported by out-of-service-area storage is estimated and Section 8.2 of the DEIR as updated in FEIR Section 8.4 where the growth supported by the Table A transfers is estimated. That added growth increment is the sole factor of the Monterey Amendment that increased SWP contractor demand. Study Number 3, Historical Operations Analysis, DEIR Appendix K, identifies the estimated increase in deliveries from the SWP due to the water supply management practices that have historically occurred and which could occur in the future to meet part of the increased demands within the SWP service area.

See FEIR Subsection 11.2.4.2 on reducing supply as an alternative.

<u>Reducing Exports Would not Meet Most, if Any, of the Proposed Project Objectives</u>

The Department has concluded that reduced pumping is not a feasible alternative to the proposed project. Reducing exports would not meet most, if any, of the proposed project objectives. While reductions in pumping from the Delta might help mitigate impacts of the SWP

in general or other projects unrelated to the SWP, these are not impacts of the proposed project and are not covered in this EIR. The DEIR concluded that there was a small, but potentially significant, impact from the proposed project on fisheries due to future application of the water supply management practices as a result of increased exports. Under the current regulations that limit SWP export pumping in the winter and spring to San Luis Reservoir would fill less often and the SWP would remain supply-limited almost all of the time. As a result, there will be fewer opportunities for the added Delta exports that would provide water supply benefits as a result of the water supply management practices. See FEIR Subsection 11.2.4.2.

As discussed in FEIR Subsection 11.2.3.1.4, the DEIR identified an alternative that could have avoided or substantially lessened potential significant adverse impacts that could result from an increase in pumping from the Delta. The Department has also determined that compliance with the requirements of the existing regulatory process under the circumstances described in the DEIR and FEIR will comprise the mitigation measures that will minimize, avoid or reduce potential effects to a less than significant effect on the Delta aquatic environment from the proposed project now and in the future. The Department has determined that relying on the existing regulatory process is not improper deferral of mitigation. See FEIR Subsection 11.2.4.2.

Although the DEIR concluded that the Monterey Amendment is not an appropriate tool for mandating the reduction in pumping changes suggested by the alternatives rejected in DEIR Subsection 11.1.2, it stated that there are other places where these concerns are or could be discussed and can be resolved in a more appropriate process. SWP impacts on water quality and endangered species are subject to SWRCB orders and to state and federal endangered species actions. See FEIR Subsections 7.2.2.1 and 7.2.2.3 for more discussion on recent and current actions with regard to Delta fisheries and mitigation for impacts from the Monterey Amendment. There are a number of efforts being made to provide for protection of Delta water quality, fisheries and environmental resources, including the BDCP and Delta Vision processes. See DEIR page 11-6. The Department is taking a leadership role and is actively involved in all these processes and engaged with the legislature, the Governor's office and other state and local government forums to deal with other issues relating to SWP operations and other actions which affect the Delta. See FEIR Subsection 5.2.3.2 for a discussion of the relationship of the proposed project to other water policy actions dealing with water supply reliability and growth, water conservation, and Delta protection. Such measures are not alternatives to the Monterey Amendment and implementation of such measures would not be affected by the Monterey Amendment. See FEIR Subsection 11.2.4.8.

## Effects of Reduced Supply

Although reduced pumping is not an alternative, the DEIR analysis of the water supplies available for allocation in different hydrologic year types and the water available to contractors in dry years illustrates the implications of reduced SWP supplies. The allocation data for dry and critically dry years illustrate a variety of conditions in which deliveries of SWP water from the Delta are less than Table A amounts and that do not include delivery of Article 21 water. Reduced pumping due to hydrology replicates fairly well the situation that would exist if SWP supplies were reduced, such as could happen as a result of climate change, dry hydrologic periods including droughts, and Delta export reductions due to regulatory or other reasons. The analysis of the proposed project evaluates the allocation of water that is available each year under a full range of hydrologic conditions, with the results illustrating the relative supplies that would be available to each contractor in any given water year type under 2003 regulatory conditions. The allocations are based on post-processing of the CALSIM II output that estimates available annual supplies. The reduced deliveries occur to various degrees,

depending on year type, with the most severe reductions in the driest years. See Section 6.4 in the DEIR (starting on page 6-15). See also FEIR Subsections 6.2.2.2 and 11.2.4.5.

Thus since the publication of the DEIR, new regulatory restrictions have been imposed on SWP operations which significantly reduce exports from the Delta. These restrictions include the 2007 interim Wanger decision which was replaced by the USFWS Biological Opinion for delta smelt issued in December 2008. In February 2009, additional restrictions were included in the DFG Incidental Take Permit for longfin smelt and NMFS added more restrictions in its Biological Opinion for salmonids issued in June 2009. These new regulatory restrictions assess the operation of the SWP and include the Monterey Amendment as part of SWP operations. These restrictions are based upon what the regulatory agencies consider to be the current best available science and are, in their view, necessary to minimize the effects of pumping on fisheries populations currently and in the future in order to prevent jeopardy and protect listed fish species and habitat. The biological opinions and permits for these listed species include requirements that improve Delta aquatic habitat through export restrictions, changes in Delta flows, and land-based projects to restore fish habitat. In addition, requirements include improvements in handling of fish salvaged at the fish protection facilities and other measures to improve fish survival. Such requirements also improve the Delta ecosystem and provide benefits to other fish besides those listed under the state and federal endangered species acts. Although the DEIR presented information that effects of the proposed project on non-listed species are less than significant, the protections provided by the current and future regulatory requirements will provide benefits to the non-listed species. These decisions, SWRCB orders and Corps permits control the conditions under which the Department can export SWP water from the Delta, and do not restrict how the Department classifies the exported water with respect to Table A, Article 21, or other water types, nor do they restrict how SWP water can be managed once it is exported. See FEIR Subsections 7.2.2 and 11.2.4.5.

During the preparation of the DEIR, and in trying to determine how to comply with the court's order on Article 18(b), the Department reviewed various ways to invoke Article 18(b) including invocation of Article 18(b) with no delivery of Article 21 water to SWP contractors. The invocation of Article 18(b) without Article 21 deliveries was not considered in detail in the DEIR because the Department concluded that it would not meet any of the objectives of the Monterey Amendment and because it would be in conflict with the basic terms of the long-term water supply contracts. See discussion on pages 11-5 and 11-6 in the DEIR. The Department also determined, after considerable discussion, that it would not have invoked Article 18(b) in this manner at any time in the past, nor into the near-term future. However, in response to comments, the Department has developed an analysis of the effects of operating the SWP with Article 18(b) invoked and with limited or no Article 21 water delivered to SWP contractors. Although the Department believes that Article 18(b) would not have been invoked in this way, nevertheless, this analysis provides additional information to the public and to decision-makers on the effects of not delivering water to SWP contractors that would otherwise be available under Article 21. This analysis is not presented as an alternative or as a modification of any alternatives discussed in the DEIR, but as clarification of why the Department rejected the approach as an alternative. See FEIR Subsection 9.2.5.3.

### 17.2.11 Economic and Social Issues

This response addresses the following comments: 20-3, 20-6, 21-5, 21-6, 27-5, 28-1, 38-1, 39-1, 40-2, 40-5, 43-4, 46-3, 47-4, 47-6, 51-1, 53-3, 54-3, 54-5, 57-5, 63-2, 64-12, 65-10, 65-11, 66-2, 66-11, 66-13, 67-7, 67-9, 67-11, 67-15, and 67-21.

## CEQA and Economic and Social Issues

The issues raised by these comments are primarily economic and social and relate to concerns about how water in managed in the state. CEQA Guidelines Section 15131(a) states:

> Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the *physical changes*. [Emphasis added]

However, this EIR provides some information and background on some of these issues so that the public and decision-makers can have a better understanding of the context in which the Monterey Amendment and the Settlement Agreement were negotiated and how they relate to the environmental issues discussed in the EIR. To the extent that these issues are related to potential physical changes in the environment, they have already been included in the EIR. See FEIR Subsection 4.2.1.3.

Some of the information relating to these issues may also be included, as appropriate, in required CEQA documents such as the findings on impacts, mitigation measures and alternatives and any statement of overriding considerations. Some of the information relating to these issues may be appropriate to bring before the Director in the context of his decision of whether to continue to operate under the Monterey Amendment and the Settlement Agreement, or in the context of other decisions he makes as the Director of the Department of Water Resources. The comments received are part of the permanent record for this proposed project and will be forwarded, as appropriate, to the Director for his consideration. See FEIR Subsection 4.2.1.3.

## Transfer of Costs to Taxpayers

Some claim that the Monterey Amendments transfer millions of dollars in costs to taxpayers while rebating millions of dollars to individual water agencies, driving up resident's water bills and requiring drought urban users to pay inflated prices on the open market.

These comments are not specific and provide no further information to support the idea that Monterey Plus would transfer costs to taxpayers and provide rebates to water agencies.

As stated in DEIR Subsection 2.6.2 on page 2-19, SWP contractors pay their share of SWP conservation and transportation facilities. It is likely that the public which receives SWP water has paid into the development of such facilities through collection of costs from the water contractor. Each contractor determines how its costs are recovered from those who benefit from SWP water. Their decisions are determined by their independently elected boards of directors. Costs of SWP facilities allocated to flood control, recreation and fish and wildlife enhancement come from other funds. The DEIR did not identify any provision of the Monterey Amendment that could transfer SWP contractor costs to taxpayers.

Article 51 of the Monterey Amendment provided for restructuring of the contractor rates. As noted in the DEIR on page 4-8, "contractors receive a reduction to their charges if the revenues exceed the payments for general obligation bonds, revenue bonds, maintenance, operation, and replacement costs, reimbursement of the California Water Fund, and deposits into the State

Water Facilities Capital Account." If an article added or amended by the Monterey Amendment was found to change the way in which water is stored or conveyed, it was assumed that it could have the potential to produce a change in SWP or contractor operations, which might in turn have environmental effects. If it did not produce an operational change, it was not analyzed for environmental impacts (see DEIR page 6-15). The DEIR found that Article 51 did not have an effect on the SWP or contractor operations (see DEIR Table 6-3). The DEIR does not include an analysis of the environmental impacts caused by Article 51 either in the resource impact analyses or in the cumulative impact analysis because it is highly speculative to try to determine how the economic change would lead to a physical or environmental change. The Department cannot trace where, how, and when the funds not given to the Department are distributed or used by each SWP contractor, and therefore the Department cannot identify or analyze physical changes or "environmental impacts that can be traced to such [economic or social] changes." See FEIR Subsection 4.2.1.1 and Response to Comment 30-54 in Chapter 4. Since Article 51 reduced costs of M&I contractors, it is possible that rates to ratepayers are reduced.

Several comments state that the Monterey Amendment removes provisions "that empower DWR to reduce project entitlements to reflect the safe yield of the project without compensating contractors at public expense for the water that they lost." If the comment is referring to Article 51 of the Monterey Amendment which provided a rebate for costs previously collected for facilities that have not been realized (thus part of the reason for a lower project supply), this is discussed in the paragraph above on Article 51. It may refer to a suggestion that elimination of Article 18(b) would provide more water for the environment which could be used in place of the use of the EWA which purchased water to compensate SWP contractors for water voluntarily not pumped at times requested by the fishery agencies. See FEIR Subsection 17.2.5.5 for a discussion that elimination of Article 18(b) would not lead to increased water for the environment. There is no plan at this time to provide for additional public funding to continue EWA. Since 2008, public funding has been insufficient to provide replacement water to compensate for reductions in Delta pumping to protect Delta fish species as has been the case in prior years. See FEIR Subsection 7.2.2.1.5.

## Fiscal Impacts of Different Provisions

One comment suggested that the Department should address its financial responsibility if Monterey Plus cannot commit to an "increased ratio of 50 percent of the water to farmers, thus destroying orchards." Monterey Plus does not result in an increased ratio of 50 percent of water to agricultural contractors. The same comment also suggests that the DEIR should have analyzed the potential financial impact of eliminating the "urban preference" or Article 18(a). The comment further claims that because of the State's fiscal emergency, the Department should provide this economic analysis in the DEIR. The altered allocation procedures and permanent transfers of Table Amounts generally result in less water in wetter years and more water in drier years for agricultural contractors. M&I contractors may have more or less water in different type years depending on whether they purchased additional Table A water. See DEIR Chapter 6. DEIR Subsection 6.4.5 provides a summary of Monterey-induced changes on SWP operations and deliveries. See FEIR Subsection 17.2.5.8 for a discussion of whether the altered allocation Monterey Amendment eliminated drought safeguards. Some M&I contractors received a reduction in average annual deliveries in critically dry years. However, the Monterey Agreement was a negotiated agreement that included a number of provisions that may offset this reduction. Even if there were a negative economic impact for some SWP contractors, it would be difficult, if not impossible, to trace where, how, and when the funds not given to the Department are distributed or used by each SWP contractor.

### Privatizing Water and Making Profits

Some comments expressed concern about "privatizing water." Comments described the Monterey Amendment as a proposal to "give control of SWP to giant agribusiness and development interests in the State to the detriment of the environment"; provide new transfer rules which allow contractors to seek water outside service areas which "means privatization of the SWP and loss of accountability to the state"; "convert what water can be taken out of the system into the free market so that people, especially big agribusiness, can profit from marketing water." Others expressed a concern generally about privatizing water, not giving it to big agriculture and the developers to manage on our behalf (in general); against allowing water contractors to profit from reselling water; and against transfers, or trading, of water because if "runs up the price (profit) which is like a red flag reminder of the energy transfers between power traders that ran up costs and contributed to California's energy crisis."

The Monterey Amendment did not change control of or privatize the SWP. The primary focus of the Monterey Amendment is on how the Department will allocate and how the contractors may be able to increase the flexibility and reliability of the available SWP water. The terms of the long-term water supply contracts, including the Monterey Amendment, do not determine how the Department will operate the SWP facilities to meet regulatory requirements, but determine how SWP supplies and costs are allocated among the contractors. See FEIR 17.2.8 above for discussion on the transfer of the KFE property.

Ownership and use of water in California is regulated by a variety of laws. The Monterey Amendment did not change any of these laws. To the extent that the concerns discussed above relate to how water entities are formed, how rights to water are determined; whether private ownership of water should be allowed or whether private entities should be allowed to profit from water sales are social and economic issues beyond the scope of this EIR.

## 17.2.12 DEIR Review Process

This response addresses the following comments: 27-1, 27-7, 35-2, 66-19, and 67-21.

### Extending the Time Period for Response

Some comments requested the Department to extend the time period for responding to the DEIR.

The time period was extended one month to January 14, 2008.

### Hearing Location

Several comments expressed concern regarding the hearing in Ventura. Commenters said that it was hard to find on the website, that the building and room were difficult to find, that the lighting in the parking lot was bad, and the hearing closed before the time announced for lack of attendance.

The comments regarding the hearing location will be taken into consideration in booking future hearing locations. See FEIR Chapter 1 for a list of the hearing locations and dates.

## 17.2.13 Incorporating or Including Other Comments

This response addresses the following comments: 11-8, 17-11, 20-10, 21-8, 22-2, and 66-7.

Some comments state that the comment incorporates comments from other commenters either in letters submitted or at one of the public hearings held during the comment period. Another comment states that it incorporates all other comments opposing this Draft EIR in its present form. Some comments also include attachments and some request that the attachments be incorporated into the EIR or be included in the record.

The FEIR contains responses to each comment submitted on the DEIR. Those comments incorporating comments from a specific letter or hearing are referred to the responses to that letter or hearing.

All attachments were reviewed. Any issues raised in the attachments are usually covered in the DEIR, FEIR or responses to comments in the letter including the attachments. In some cases, an attachment was determined to have separate issues and it was assigned specific comment numbers. Unless it was assigned a specific comment number, none of the attachments to comments listed in this subsection are officially incorporated into the FEIR. All attachments are included as part of the record.

# 18. REFERENCES

# 18. REFERENCES

## 18.1 Documents and Personal Communications Used to Prepare the FEIR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U.S. Fish and Wildlife Service. 2006 and 2007. Updates from Delta Native Fishes Recovery. Center for Biological Diversity. The Bay Institute, Natural Resource Defense Council.

## 18.2 Documents Incorporated by Reference

The following documents are incorporated by reference as permitted in CEQA Guidelines, Section 15150. These documents shall be considered to be set forth in full as part of the text of this EIR. Each document and its relationship to the EIR is described in the FEIR.

These documents are available to the public for inspection at the Department of Water Resources:

Mitigation Restoration Branch
Division of Environmental Services
3500 Industrial Blvd.
West Sacramento, CA 95691

All of the documents are public agency documents and most are also available on the agency websites listed for each document. A copy of all of the documents is included as FEIR Appendix F.

1. California Department of Fish and Game. 2009. *Longfin smelt California Endangered Species Act Incidental Take Permit 2081-2009-001-03 for the Department of Water Resources California State Water Project Delta Facilities Operations*. Commonly referred to as the CDFG Incidental Take Permit for longfin smelt. http://www.delta.dfg.ca.gov/data/longfinsmelt/documents/LongfinSmeltIncidentalTakePermitNo.2081-2009-001-03.asp.

This document (*Longfin smelt California Endangered Species Act Incidental Take Permit 2081-2009-001-03 for the Department of Water Resources California State Water Project Delta Facilities Operations* or ITP) is incorporated by reference because it assesses the operation of the SWP, including the Monterey amendment as part of SWP operations and because it specifies protective measures required by the Department of Fish and Game (DFG) to ensure the protection and conservation of the longfin smelt (*Spirincus thaleichthys*) in compliance with the California Endangered Species Act (CESA). These protective measures, in the form of additional restrictions on SWP operations, represent what the regulatory agency considers necessary to minimize the effects of the SWP operations on longfin smelt.

The CESA Incidental Take Permit (ITP) authorizes take of longfin smelt by the Department in its on-going operation of the SWP facilities in the Sacramento-San Joaquin Delta. The permit authorizes the Department to take longfin smelt incidentally in operating the SWP facilities. The ITP was issued by DFG on February 23, 2009, covering longfin smelt during the remainder of its candidacy period and continuing after the effective date of the Fish and Game Commission's decision to list the longfin smelt as threatened. The Department of Fish and Game, prior to making a decision to issue the ITP, considered the environmental effects described in the Department's adopted *Negative Declaration for the Ongoing California State Water Project Operations in the Sacramento-San Joaquin Delta for the Protection of Longfin Smelt*. The Negative Declaration does not include additional operational restrictions and measures for the protection of longfin smelt beyond actions already in place for protection of delta smelt. DWR believes these actions are effective in protecting longfin smelt from the effects of SWP operations to authorize take. The actions include a weekly adaptive management process for DFG to provide input on SWP operations for the protection of longfin smelt. The DFG, however, found that the project's description did not include all of the required protective measures it considered necessary for State Water Project impacts to longfin smelt and, in issuing the ITP, DFG adopted an Addendum to the Negative Declaration.

2. California Department of Fish and Game. 2009. *Notice of Determination, Addendum and Negative Declaration on Ongoing California State Water Project Operations in the Sacramento-San Joaquin Delta for the Protection of Longfin Smelt*. SCH #2009012022. Commonly referred to as the DFG Longfin Smelt Notice of Determination and Negative Declaration. http://www.dfg.ca.gov/delta/projects.asp?ProjectID=LONGFINSMELT.

This document (*Addendum and Negative Declaration on Ongoing California State Water Project Operations in the Sacramento-San Joaquin Delta for the Protection of Longfin Smelt*) is based on an assessment of the SWP operations, including the Monterey amendment as part of SWP operations, this document specifies protective measures required by the Department of Fish and Game (DFG) that are in addition to measures outlined in DWR's *Initial Study and Negative Declaration on Ongoing California State Water Project Operations in the Sacramento-San Joaquin Delta for the Protection of Longfin Smelt* to ensure the protection and conservation of the longfin smelt (*Spirincus thaleichthys*) in compliance with the California Endangered Species Act (CESA). These protective measures, in the form of additional restrictions on SWP operations represent what the regulatory agency considers necessary to minimize the effects of the SWP operations on longfin smelt.

DFG issued an Incidental Take Permit (ITP) to the Department of Water Resources (DWR) on February 23, 2009 as part of the on-going and long-term operation of the State Water Project (SWP), which includes the Monterey Amendment as part of its operations. The ITP covers the incidental take of longfin smelt at SWP facilities. However, prior to issuing the ITP, DFG considered the environmental effects described in the DWR's *Negative Declaration on On-going California State Water Project Operations in the Sacramento-San Joaquin Delta for the Protection of Longfin Smelt* adopted. DFG found that the project's description did not include all of the required protective measures it considered necessary for State Water Project impacts to longfin smelt. Therefore, in issuing the ITP, DFG adopted an Addendum to The Department's *Negative Declaration on Ongoing California State Water Project Operations in the Sacramento-San Joaquin Delta for the Protection of Longfin Smelt* pursuant to CEQA Guidelines sections 15096(f) and 15164. The Addendum specifies additional measures to protect longfin smelt including pumping restrictions, fish screens, habitat restoration, and monitoring and reporting. While these additional protective measures triggered development of an addendum, DFG did not believe the changes exposed any new, previously undisclosed environmental impacts or that it increased the severity of any impacts previously disclosed.

3. California Department of Water Resources. 2009. *Notice of Determination, Initial Study and Negative Declaration on Ongoing California State Water Project Operations in the Sacramento-San Joaquin Delta for the Protection of Longfin Smelt*. Clearinghouse Number #2009012022. Commonly referred to as the DWR Longfin Smelt Notice of Determination and Negative Declaration. http://www.water.ca.gov/environmentalservices/monterey_plus.cfm.

This document (*Notice of Determination, Initial Study and Negative Declaration on Ongoing California State Water Project Operations in the Sacramento-San Joaquin Delta for the Protection of Longfin Smelt*) is incorporated by reference because it assesses the operation of the State Water Project (SWP), including the Monterey amendment as part of SWP operations and because it specifies protective measures required by the Department of Fish and Game (DFG) to ensure the protection and conservation of the longfin smelt (*Spirincus thaleichthys*) in compliance with the California Endangered Species Act (CESA). These protective measures, in the form of additional restrictions on SWP operations, represent what the regulatory agency considers necessary to minimize the effects of the SWP operations on longfin smelt.

The proposed project, or action, is the Department of Water Resources' (DWR) on-going and long-term operation of the SWP, which includes the Monterey Amendment as part of its operations, in the manner consistent with the protection and conservation of the longfin smelt in compliance with the CESA as authorized by the DFG through issuance of a permit for take of longfin smelt under Section 2081 of CESA (California Fish and Game Code Section 2081). The action consists of operation of SWP facilities consistent with certain actions identified in the *U.S.*

*Fish and Wildlife Service Delta Smelt Biological Opinion of the Operating Criteria and Plan for the Coordinated Operations of the Central Valley Project and State Water Project* (USFWS 2008). The action includes operation of SWP facilities from December through June to protect adult longfin smelt migration and spawning and larvae and juvenile rearing. The protection of longfin smelt is achieved through operations undertaken during the same period to protect delta smelt, which DWR believes are sufficient for the protection of longfin smelt because of adaptive management provisions and the substantial overlap in timing and distribution of these species in the Sacramento-San Joaquin Delta. Specific operations to protect delta smelt at SWP facilities and their triggers as well as additional monitoring measures are described in this Initial Study and Negative Declaration.

4. California Department of Water Resources. 2009. *2007 Annual Emissions Report*, (Emissions from California operations). California Climate Action Registry. https://www.climateregistry.org/CARROT/public/Reports.aspx.

The California Climate Registry (CCAR) sets standards for the calculation, verification and public reporting of greenhouse gas emissions into a single registry. The Department joined the CCAR in June 2007, to begin formally measuring and tracking its annual carbon footprint. This process ensures that an accurate, independently verified set of data can provide the basis for greenhouse gas reductions strategies. The annual reports include direct and indirect carbon dioxide ($CO_2$) emissions associated with the State Water Project (SWP), the Department's facilities and stations, on- and off-road vehicles, and equipment. The primary source of emissions is the electricity purchased to operate the SWP. The Department is continually evaluating its operational strategies and energy portfolio to decrease its fossil fuel based energy resources, and to deliver water using environmentally sensitive and sustainable energy resources. In June 2009, the Department filed its most recent (2008) Annual Emissions Report.

5. National Marine Fisheries Service. Southwest Region. 2009. *Biological and Conference Opinion on the Long-term Operations of the Central Valley Project and State Water Project.* Commonly referred to as the NMFS Biological Opinion for salmonids. http://swr.nmfs.noaa.gov/ocap.htm.

This document (*Biological and Conference Opinion on the Long-term Operations of the Central Valley Project and State Water Project*) or Biological Opinion or BO assesses the operation of the State Water Project (SWP), including the Monterey amendment as part of SWP operations, and specifies protective measures required by the National Marine Fisheries Service to ensure the protection and conservation of the anadromous salmonids and green sturgeon in compliance with the Endangered Species Act (ESA). These protective measures, in the form of additional restrictions on SWP operations, represent what the regulatory agency considers necessary to minimize the effects of the SWP operations on anadromous salmonids, green sturgeon, and Southern Resident killer whales.

This BO is a product of formal consultation, stating NMFS' opinion on whether or not a Federal action is likely to jeopardize the continued existence of species protected under the Endangered Species Act.

The NMFS provided the BO to the affected federal agency (Bureau of Reclamation), detailing how the Coordinated Operations of the Central Valley Project (CVP) and SWP, which included the Monterey Amendment as part of its operations, would likely jeopardize the continued existence of winter and spring-run Chinook salmon, Central Valley steelhead, the southern population of North American green sturgeon and Southern Resident killer whales.

The BO includes new operational restrictions and measures aimed at preventing jeopardy by protecting and enhancing abundance of anadromous salmonids and green sturgeon, such as; limits on exports, reduction of pre-screen loss at Clifton Court Forebay, entrainment or salvage at the export facilities, formation of interagency fish passage steering committee, implementation of end-of-September storage, development of fish passage program, implementation of pilot reintroduction program, spring attraction flows, channel maintenance flows spawning gravel augmentation, improvements to water temperature, adaptive management to salmonid habitat suitability studies, and performance measures reported to NMFS every 5 years—with reconsultation resulting if there is significant deviation over a 10 year period, not explained by hydrologic cycle.

6. State Water Resources Control Board. 1995. *Water Quality Control Plan for the San Francisco Bay/Sacramento San Joaquin Delta Estuary.* Commonly referred to as the 1995 Bay-Delta WQCP. http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/wq_control_plans/1995wqcp/1995_plan.shtml

This document (*Water Quality Control Plan for the San Francisco Bay/Sacramento San Joaquin Delta Estuary*) includes plans and policies to protect the water quality and to control the water resources which affect the beneficial uses of the Bay-Delta Estuary. These plans and policies have been adopted consistent with section 13000 et seq. of Division 7 of the California Water Code (Stats. 1969, Chapter 482) and pursuant to the authority contained in section 13170 (Stats. 1971, Chapter 1288).

This plan supersedes both the Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh, adopted August 1978 (1978 Delta Plan), and the Water Quality Control Plan for Salinity for the San Francisco Bay/Sacramento-San Joaquin Delta, adopted May 1991 (1991 Bay-Delta Plan). The SWRCB implements this plan principally through the adoption of a water right decision or decisions.

The purpose of this plan is to establish water quality control objectives which contribute to the protection of beneficial uses in the Bay-Delta Estuary. Like all water quality control plans, this plan consists of: (1) beneficial uses to be protected; (2) water quality objectives for the reasonable protection of beneficial uses; and (3) a program of implementation for achieving the water quality objectives.

This plan provides the component of a comprehensive management package for the protection of the Estuary's beneficial uses that involves salinity (from saltwater intrusion and agricultural drainage), water project operations (flows and diversions), and a dissolved oxygen objective. This plan supplements other water quality control plans adopted by the SWRCB and regional water quality control boards (RWQCBs), and State policies for water quality control adopted by the SWRCB, relevant to the Bay-Delta Estuary watershed. These other plans and policies establish water quality standards and requirements for parameters such as toxic chemicals, bacterial contamination, and other factors which have the potential to impair beneficial uses or cause nuisance.

7. State Water Resources Control Board. 1999. *Final EIR for Implementation of the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento San Joaquin Delta Estuary*. SCH #97-122056. Commonly referred to as the 1999 Bay-Delta WQCP Implementation EIR. http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/eirs/eir1999/index.shtml

The State Water Resources Control Board (SWRCB) is responsible for the regulation of activities and factors that may affect the quality of the waters of the state. (Wat. Code, §§ 13000, 13001.) This document (*Final EIR for Implementation of the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento San Joaquin Delta Estuary*) (FEIR) meets the requirements of CEQA for the implementation of the 1995 water quality control plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay/Delta Plan) through water rights Decision 1641 (D-1641) adopted by the SWRCB.

The Bay/Delta Plan identifies municipal and industrial, agricultural, and fish and wildlife beneficial uses for waters of the estuary, and specifies objectives to protect these uses. The objectives consist of numeric objectives for flow; numeric objectives for water quality constituents (salinity and dissolved oxygen); numeric operational constraints for the State Water Project (SWP) and the Central Valley Project (CVP); a narrative objective for the protection of salmon; and a narrative objective for the protection of brackish tidal marshes in Suisun Marsh. The SWRCB prepared an Environmental Report (ER) for the Bay/Delta Plan, which is allowed under CEQA as a certified regulatory program. The ER is a programmatic document that provided a foundation for the FEIR.

As described In the FEIR for D-1641, the DWR and the USBR agreed to implement the Plan objectives until the SWRCB adopted a water right decision that allocates responsibility to meet the Plan objectives. The proposed project was a SWRCB administrative action to implement the Plan by allocating responsibility for achieving the Plan objectives to water right holders whose diversions affect the beneficial uses of water in the estuary.

This FEIR analyzed alternative actions for implementing the 1995 Plan and the environmental impacts of those alternatives. Most of the potential actions implemented one group of objectives independently of actions to implement other groups of objectives. As a result, many combinations of actions could be taken to implement the Plan.

The FEIR provided that any decision of the SWRCB to implement the 1995 Bay/Delta Plan would fall within the range of alternatives described and analyzed within this document. The FEIR analyzed the following sets of alternatives: (1) alternatives for implementing the flow objectives, (2) alternatives for implementing Suisun Marsh salinity objectives, (3) alternatives for implementing salinity control measures in the San Joaquin River Basin, (4) alternatives for implementing southern Delta salinity alternatives (other than Vernalis), (5) alternatives for implementing the dissolved oxygen objective, and (6) alternatives for implementing combined use of SWP and CVP points of diversion.

The objectives in the Bay/Delta Plan were implemented through SWRCB D-1641 with responsibility for meeting most of the objectives assigned to the SWP, operated by the California Department of Water Resources (DWR), and the CVP, operated by the U.S. Bureau of Reclamation (USBR).

8. State Water Resources Control Board. 1999. *Revised Water Right Decision 1641 in the Matter of: Implementation of Water Quality Objectives for the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary; A Petition to Change Points of Diversion of the Central Valley Project and the State Water Project in the Southern Delta; and A Petition to Change Places of Use and Purposes of Use of the Central Valley Project*. Commonly called SWRCB Decision 1641. Revised in Accordance with Order WR 2000-02 March 15, 2000. http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/decision_1641/index.shtml

This document (*Revised Water Right Decision 1641 in the Matter of: Implementation of Water Quality Objectives for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; A Petition to Change Points of Diversion of the Central Valley Project and the State Water Project in the Southern Delta; and A Petition to Change Places of Use and Purposes of Use of the Central Valley Project*) sets restrictive limits and standards on the SWP and the Central Valley Project (CVP), controlling the conditions under which the Department of Water Resources (DWR) and the U.S. Bureau of Reclamation (USBR) can export water from the Delta.

This water rights decision is part of the SWRCB's implementation of the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan). Water Rights D-1641 amends certain water rights by assigning responsibilities to the persons or entities holding those rights to help meet the objectives. In this decision, the SWRCB accepts the contributions that certain parties, through their agreements, will make to meet the flow objectives in the Bay-Delta Plan, and continued the interim responsibility of DWR and the USBR for the remaining measures to meet the flow objectives. This decision also expands upon the responsibility of the DWR and the USBR, by including some objectives that were not included in two previous limited term orders.

9. US Department of the Interior, Bureau of Reclamation, Mid-Pacific Region. 2008. *Biological Assessment on the Continued Long-term Operations of the Central Valley Project and the State Water Project*. Commonly referred to as the Long-Term Operational Criteria and Plan for Coordination of the Central Valley Project and State Water Project or OCAP. http://www.usbr.gov/mp/cvo/ocap_page.html

The Biological Assessment (BA) was developed by the Bureau (Bureau of Reclamation) as the lead Federal Agency along with the Department and in coordination with the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) to initiate formal Endangered Species Act consultation for the *Long-Term Operational Criteria and Plan for Coordination of the Central Valley Project and State Water Project or OCAP.* The Monterey Amendment is included in the OCAP BA because it is a part of State Water Project (SWP) operations. The BA discloses the perceived impacts of OCAP on ESA-listed species. Both the USFWS and NMFS evaluated the BA and each agency issued a Biological Opinion stating whether or not OCAP would jeopardize the continued existence of ESA-listed species. The United States Fish and Wildlife Service evaluated the effects of OCAP on delta smelt and its critical habitat. The National Marine Fisheries Service evaluated the effects of OCAP on Sacramento River winter-run Chinook salmon, Central Valley spring-run Chinook salmon, Central Valley steelhead, Central California Coast steelhead, Southern Distinct Population Segment of North American green sturgeon, and Southern Resident killer whales.

10. USFWS. California-Nevada Region. 2008. *Formal Endangered Species Act Consultation on the Proposed Coordinated Operations of the Central Valley Project (CVP) and State Water Project (SWP)*. Commonly referred to as the USFWS Biological Opinion for delta smelt. http://www.fws.gov/sacramento/es/delta_smelt.htm

This document (*Formal Endangered Species Act Consultation on the Proposed Coordinated Operations of the Central Valley Project (CVP) and State Water Project (SWP) or Biological Opinion or BO*) assesses the operation of the SWP, including the Monterey amendment as part of SWP operations, and specifies protective measures required by the United State Fish and Wildlife Service to ensure the protection and conservation of the delta smelt (*Hypomesus transpacificus*) in compliance with the Endangered Species Act (ESA). These protective measures, in the form of restrictions on SWP operations, represent what the regulatory agency

considers necessary to minimize the effects of the SWP operations on delta smelt and prevent jeopardy to the continued existence of the species.

This BO is a product of formal consultation, stating USFWS' opinion on whether or not a Federal action is likely to jeopardize the continued existence of a species protected under the Endangered Species Act. The USFWS provided this BO to the affected federal agency (Bureau of Reclamation), detailing how the Coordinated Operations of the Central Valley Project (CVP) and State Water Project, which included the Monterey Amendment as part of its operations, would likely jeopardize the continued existence of delta smelt and adversely modify its critical habitat. The BO includes new operational restrictions and measures aimed at protecting each delta smelt life stage and its critical habitat such as limits on exports, installation of temporary barriers, delta smelt rearing habitat improvements, habitat restoration, monitoring and reporting.

## 18.3 Cases Cited in the FEIR

### State Cases

*Assn. of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383

*Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2007) 158 Cal.App.4th 1336, review granted Apr. 16, 2008, S161190

*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401

*DaVita v. County of Napa* (1995) 9 Cal.4th 763

*Friends of the Eel River v. Sonoma County Water Agency* (2003) 108 Cal.App.4th 859

*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143

*Laurel Heights Improvement Assn. of S.F., Inc. v. The Regents of the Univ. of California* (1988) 47 Cal.3d 376

*Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342

*Nat. Audubon Society v. Super. Ct. (Dept. of Water and Power of the City of Los Angeles)* (1983) 33 Cal.3d 419

*Planning and Conservation League v. Dept. of Water Resources* (2000) 83 Cal.App.4th 892

*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713

*U.S. v. State Water Resources Control Bd.* (1986) 182 Cal.App.3d 82

*State Water Resources Control Bd. Cases* (2006) 136 Cal.App.4th 674

*Citizens of Goleta Valley v. Bd. of Supervisors of Santa Barbara County* (1990) 52 Cal.3d 553

*Cleary v. County of Stanislaus* (1981) 118 Cal.App.3d 348

*Environmental Planning and Information Council of Western El Dorado County v. County of El Dorado* (1982) 131 Cal.App.3d 350

*County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931

*People v County of Kern* (1974) 39 Cal.App.3d 830

*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692

*San Franciscans Upholding the Downtown Plan v. City and County of S.F.* (2002) 102 Cal.App4th 656

*Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437

*Save our Peninsula Com. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99

*Twain Harte Homeowners Assn. v. County of Tuolumne* (1982) 138 Cal.App.3d 664

*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412

## Federal Cases

*Methow Valley Citizens Council v. Regional Forester* (9th Cir. 1987) 833 F.2d 810

*NRDC v. Kempthorne (Wanger Decision)* – Interim Remedial Order Following Summary Judgment and Evidentiary Hearing (case No. 1:05-cv-1207 OWW GSA) December 14, 2007

*Planning and Conservation League v. U.S. Bureau of Reclamation* (N.D.Cal. Feb. 15, 2006, No. C 05-2537 CW)