

## **11. ALTERNATIVES**

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## 11.1 INTRODUCTION

CEQA Guidelines, Section 15126.6(a) state that an EIR must describe and evaluate a reasonable range of alternatives to the proposed project that would feasibly attain most of the project's basic objectives, but that would avoid or substantially lessen any significant adverse environmental effects of the project. An EIR is not required to consider every conceivable alternative to a proposed project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. In addition to any other alternatives considered, an EIR must include an evaluation of "no project" to allow decision-makers to compare the results of approving or disapproving the proposed project (CEQA Guidelines, Section 15126.6(e)).

### 11.1.1 No Project Alternatives

If the Monterey Amendment had not been implemented in 1995, management of the SWP might have proceeded in any number of ways. It is, of course, impossible to know which path management would have been followed and so, in the following analysis, several possibilities rather than a single path were examined. The several versions of "no project" examined in this EIR encompass a range within which all reasonable possibilities lie. They are listed and briefly described below.

- **No Project Alternative 1 (NPA1).** Under this alternative, none of the elements of the proposed project (Monterey Amendment and Settlement Agreement) would be implemented. The Kern Fan Element property would remain in state ownership and a state-owned but locally operated water bank would be developed there to improve reliability of SWP deliveries in dry periods. The water bank would have a storage capacity of 350,000 acre-feet in 2003 and 500,000 acre-feet in 2020.<sup>1</sup>
- **No Project Alternative 2 (NPA2)** Under this alternative all Monterey Amendment actions that took place between 1995 and 2003 would occur. The actions include the Table A transfers and retirements that occurred between 1995 and 2003, the altered water allocation procedures, the water supply management practices, including out-of-service area storage, and the transfer of the Kern Fan Element property to KCWA. In 2003, some of the water supply management practices and the altered water allocation procedure would be discontinued. Flexible storage in Castaic Lake and Lake Perris, extended carryover storage in San Luis Reservoir and the turnback pool would be discontinued. Storage outside contractor's service areas would still be permitted but would be limited to those programs in place in 2003. No new or expanded out-of-service area storage programs would take place. Beginning in 2003, water would be allocated in accordance with pre-Monterey Amendment allocation rules. The Settlement Agreement and the post-2003 Monterey Amendment Table A transfers would not take place.
- **Court-Ordered No Project Alternative 3 (CNPA3)** In September 2000, the court in PCL v. DWR ordered the Department to prepare a new EIR on the Monterey Amendment that contained an analysis of a no project alternative that included invocation of Article 18(b) of the pre-Monterey Amendment long-term water supply

contracts. Under CNPA3, Article 18(b) of the pre-Monterey Amendment long-term water supply agreements would be invoked and the sum of the Table A amounts would be reduced from 4.23 to 1.9 million acre-feet. The sum of the Table A amounts for CNPA3 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 acre-feet with its existing facilities and within the current regulatory framework in all but one year in the 73-year hydrologic record. Under this alternative none of the elements of the Monterey Amendment would be implemented. In years when available supplies are equal to or less than 1.9 million acre-feet, water would be allocated in accordance with pre-Monterey Amendment Article 18(a) provisions for temporary shortages. In years when available supplies exceeded 1.9 million acre-feet, surplus water would be allocated proportional to contractor's Table A amounts. The Kern Fan Element property would remain in state ownership and a water bank would be developed there as planned by the Department. It would have a storage capacity of 350,000 acre-feet in 2003 and 500,000 acre-feet in 2020. The Settlement Agreement would not be implemented.

- **Court-Ordered No Project Alternative 4 (CNPA4)** CNPA4 is similar to CNPA3. Because there is uncertainty about how water available in excess of the estimated 1.9 million acre-feet sum of the reduced Table A amounts would be allocated by the Department after invocation of Article 18(b), CNPA4 includes a different water allocation method from CNPA3. Under CNPA4, preference would be given to agricultural and groundwater replenishment use in the allocation of surplus water. Otherwise it would be the same as CNPA3.

### 11.1.2 Other Alternatives

With respect to alternatives other than the no project alternative, the approach taken with the Monterey Plus EIR was to first analyze the environmental effects of the proposed project and determine whether the proposed project had any significant adverse environmental impacts. If the proposed project had no significant adverse environmental effects there would be no need to analyze alternatives other than the required no project alternative. The analysis indicates that the proposed project could have potentially significant adverse effects on fisheries resources in the Sacramento San Joaquin Delta and on environmental resources at Castaic Lake and Lake Perris, in the San Joaquin Valley portion of Kern County and in Plumas County. It follows that alternatives other than the no project alternative must be examined to determine whether an alternative could meet most of the objectives of the proposed project but with lesser adverse environmental impacts.

Some members of the advisory committee suggested alternatives for evaluation in the EIR. The Department reviewed the suggested alternatives and determined whether they should be analyzed in detail in the EIR using the screening criteria listed below. Alternatives were selected for detailed analysis if they:

- met most of the proposed project's objectives;
- lessened the significant environmental impacts resulting from the proposed project; and,
- are sufficiently technically, financially and institutionally feasible to be implemented in a reasonable period of time.

None of the alternatives suggested met all the screening criteria but one alternative was selected for detailed analysis. The selected alternative is described below:

- **Alternative 5** would be the same as the proposed project except that the Monterey water supply 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. Although there is doubt about the institutional feasibility of Alternative 5 it was decided that it should be analyzed because it would lessen the adverse environmental impacts of the Monterey Amendment. This is because most of the impacts of the Monterey Amendment stem from the Monterey water supply management practices that are excluded from Alternative 5.<sup>2</sup>

Some members of the advisory committee suggested alternatives and alternative project features that are analyzed in this EIR. The plaintiff's suggestions were contained in a letter to the Department dated December 18, 2006. The plaintiffs suggested that an alternative be considered that involves the invocation of Article 18(b) of the pre-Monterey Amendment long-term water supply contracts. This possibility is represented by CNPA3 and CNPA4, both of which are examined in detail in this chapter of the EIR. The plaintiffs suggested an alternative in which the Department would retain ownership of the Kern Fan Element property and would develop a state-owned water bank there, which would be used to improve dry year reliability of SWP deliveries. A state-owned water bank on the Kern Fan Element property is a part of NPA1, CNPA3 and CNPA4. The plaintiffs suggested an alternative that does not include the transfer of 41,000 acre feet of Table A amount from KCWA to Castaic Lake WA that occurred in 2000 but which was subsequently challenged in the courts. The KCWA to Castaic Lake WA transfer is not included in NPA1, CNPA3 and CNPA4.

The contractors' indicated that, in their view, many elements of the Monterey Amendment that were implemented between 1996 and 2003 cannot practically be reversed. The elements of the Monterey Amendment that the contractors believe cannot be reversed are included in NPA2. NPA2 includes the Table A transfers and retirements and water supply management practices that occurred between 1996 and 2003 and the transfer of the Kern Fan Element property for local development and use as a water bank, all of which the contractors consider to be irreversible.

The plaintiffs also suggested that an alternative should be considered that takes account of the effects of climate change on California's hydrology and SWP deliveries. The Department agreed that climate change should be considered in the EIR but that it did not represent an alternative to the proposed project because it is a condition that affects the proposed project and all of the alternatives. The topic is discussed in detail in Chapter 12.

## 11.2 ALTERNATIVES CONSIDERED BUT REJECTED

Some members of the advisory committee suggested alternatives that were rejected from further consideration by the Department because they did not meet the screening criteria described above. Some of the suggestions were for complete alternatives to the proposed project; others were for project features that might be incorporated into an alternative. The two types of suggestions are described separately below.

### 11.2.1 Buildout SWP Alternative

When the long-term water supply contracts were executed the Department intended to build sufficient storage and conveyance facilities to reliably deliver 4.2 million acre-feet of water to the

contractors in all but the most extreme droughts. As discussed in Chapter 2, for a variety of reasons the Department has not been able to build several of the storage and conveyance facilities envisaged when the SWP was planned. Consequently, the Department is currently unable to reliably deliver as much water as originally planned.

This alternative would involve completing sufficient new state-owned water supply facilities to provide completely reliable delivery of approximately 4.2 million acre-feet per year of SWP water in all but the driest years. It would meet some of the objectives of the Monterey Amendment but not in a reasonable amount of time. The Department's efforts to complete new storage and conveyance facilities have had limited success since the early 1970s. Even if political obstacles can be overcome, several decades of planning, permitting, engineering and construction would be required to add the water supply facilities necessary to provide a high level of reliability. The alternative was not evaluated in detail in the EIR because it could not be implemented within a reasonable period of time.

It is useful to note that in the Department's water planning the concept of firm yield (a set amount of water that can be delivered almost every year) has been replaced by water reliability curves that show the likelihood of full Table A deliveries by the SWP under different hydrologic conditions.<sup>3</sup> Furthermore, the Department is encouraging contractors to develop multiple water supply sources so that they can take advantage of years when more water is available from the SWP and supplement SWP water when it is scarce.

### **11.2.2 Urban Preference and Dry Year Reliability Alternative**

This alternative would use pre-Monterey water allocation procedures (urban preference in dry years) but 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. Under this alternative, the SWP would be re-operated to store wet year water in groundwater banks and surface reservoirs within and outside the SWP service area in order to guarantee water to urban development during multiple year droughts. It would require monitoring of water suppliers and local government to assure that the proposed project would result in drought reliability not urban growth.

As an alternative, it would specify favorable delivery priority for SWP contractors with low drought reliability and would require a 75 to 100 percent reliability standard for water supplies used to support urban growth. This would be similar in some ways the Buildout SWP Alternative which also seeks to achieve 100 percent reliability of the SWP. The alternatives would not meet most, if any, of the objectives of the Monterey Amendment including resolving the initial issue that brought the contractors to the table – problems for agricultural contractors during droughts. This alternative would not meet most of the objectives of the Monterey Amendment.

In addition, the alternative would fundamentally change the relationship between the Department and its contractors introducing new monitoring and control measures not contemplated in the Burns-Porter Act nor provided for in the long-term water supply contracts in either their pre- or post-Monterey Amendment form. These measures would require Departmental control over local water supplies and control over SWP supplies after they are delivered to contractors in order to ensure that water was used in a way that conformed with the goals of the alternative. They would also require Departmental control over local land use decisions to address the growth limitations outlined in the alternative. State policy has

consistently left such decisions to local entities, including determining what is an appropriate standard of reliability.

The expansion of state powers through legislation that would be needed to implement this alternative is not likely to be acceptable to state, regional or local entities. The alternative was deemed infeasible and was not considered in detail in the EIR.

Plaintiffs have concerns regarding the relationship between local permitting of new urban developments and the availability of adequate water supplies. The Monterey Amendment is not an appropriate tool for dealing with these concerns. There are other places where these concerns are or could be discussed and can be resolved in a more organized process. These include the Department's Bulletin 160 process which looks at water needs and supplies from a statewide perspective and the legislature where each year bills are introduced to extend or modify the urban water management process and its relationship to local planning.

### **11.2.3 No Urban Preference and Dry Year Reliability Alternative**

This alternative would use post-Monterey water allocation procedures (no preference for either urban or agricultural contractors) but 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. This alternative would not meet most, if any, of the objectives of the Monterey Amendment. Furthermore, it is similar to the "Urban Preference and Dry Year Reliability Alternative", in that it would require an expansion of state powers not likely to be feasible as described under that alternative, above. The alternative was not considered in detail in the EIR for this reason.

### **11.2.4 Improved Reliability through Environmental Enhancement Alternative**

This alternative would involve the Department reducing stress on fishery resources in the Delta by directly implementing water use efficiency measures, water recycling, storm water capture and other local water system enhancements that stabilize water demand and improve SWP reliability. It is not clear whether this alternative proposes a mandatory reduction in pumping based on a theoretical demand reduction produced by such measures (the proposal suggests 50 percent) or whether it assumes the implementation of these measures would automatically lead to such a reduction. It was suggested that the Department use Article 56 funds to partially finance these water supply enhancements. SWP funds are not used to fund local water supply projects. These are locally funded programs in which the Department has no involvement or control.

Plaintiffs would like to see more aggressive "local water enhancement" such as those measures listed above which they think would stabilize water demand and improve water supply reliability in the SWP service area. This EIR examines the effect on water supplies of reducing Table A amounts in CNPA3 and CNPA4 which include implementation of Article 18(b). It also examines the effect of climate change-induced reductions in SWP water supply of up to 10 percent in Chapter 12. The Monterey Amendment is not an appropriate tool for mandating "local water enhancements". There are other forums where these concerns can be discussed as part of a comprehensive process. These include private, administrative and legislative efforts to institute best management practices for water use efficiency.

The Department funds water efficiency measures proposed by local water agencies through grant programs. The ability of water efficiency programs to reduce demands on the Delta is one of the considerations in the grant process.

It was also suggested that the Department allocate 50 percent of Article 21 water for environmental purposes. Such an action would be in conflict with one of the basic premises of both the pre- and post- Monterey Amendment terms of the long-term water supply contracts, which view Article 21 water as water that goes to the contractors when it is available. It is not extra water, which can be given away for other purposes.

The alternative was not considered in detail in the EIR because it would not meet any of the objectives of the Monterey Amendment. Furthermore, it would be in conflict with the basic terms of the long-term water supply contracts.

The plaintiffs are concerned about the health of the Delta and would like to see more water available for in-Delta uses. The Monterey Amendment is not an appropriate tool for mandating that SWP water be used to benefit the Delta environment. The SWP already operates in compliance with the Delta water quality and flow objectives established by the SWRCB and as constrained by the need to protect threatened and endangered fish species listed pursuant to federal and state Endangered Species Acts. There are several forums where the health of the Delta is being discussed and any remedial actions developed can be pursued as part of a more comprehensive process. These include the Delta Vision Process, the Delta NCCP and the state and federal endangered species processes.

#### **11.2.5 Coordinated CVP-SWP Systems Alternative**

It was suggested that the SWP and CVP be more closely coordinated and reoperated beyond the current coordination under the Coordinated Operating Agreement to capture water in wet years and maximize export of water from the Delta by the SWP and CVP. This is similar to a proposal that arose from meetings between the Department, Reclamation and their respective contractors in Napa in the spring of 2003. The proposal was that the CVP would provide some storage benefits to the SWP and the SWP would provide some Delta pumping and conveyance capacity to the CVP. The proposal was contingent on increasing pumping at the Banks Pumping Plant to 8,500 cfs. The proposal has not been implemented because of concerns over fisheries resources in the Delta and the related lack of progress with obtaining approval for increased pumping at the Banks Pumping Plant.

The alternative was dropped from detailed consideration in the EIR because it would not achieve any of the objectives of the proposed project and it would not lessen the impacts on Delta fish populations, identified as one of the potential effects of the Monterey Amendment.

#### **11.2.6 Kern Fan Transfer with Trust Conditions Alternative**

Under this alternative the Kern Fan Element lands would be transferred from state to local ownership but a trust arrangement would require that water banked in the Kern Water Bank would provide statewide environmental benefits. This alternative would not meet the objectives of the Monterey Amendment. The alternative was not considered in detail in the EIR for this reason.

The plaintiffs are concerned about the health of the environment and would like to see more water available for environmental purposes. The Monterey Amendment is not an appropriate

tool for finding or mandating SWP water to be used for such purposes. Using a state owned water bank in the Kern Fan Element for environmental purposes would involve finding an appropriate funding source and reaching agreement with local entities.

### **11.3 ASSUMPTIONS AND ANALYTICAL METHODS**

As discussed in Chapters 5 and 6, two analytical methods were used to characterize SWP operations with alternatives to the proposed project in place, CALSIM II simulations of SWP operations and analysis of historical data. CALSIM II can be used to estimate SWP deliveries with different Table A amounts and different water allocation methods but it cannot simulate the Monterey water management practices. CALSIM II alone was used to estimate SWP deliveries of Table A and Article 21 water for NPA1, CNPA3 and CNPA4 and Alternative 5 because they do not include the Monterey water supply management practices. NPA2 includes the water supply management practices and so in this case CALSIM simulations were supplemented by an analysis using historical data.

CALSIM II output was post-processed to estimate deliveries of Table A and Article 21 water to individual contractors. A report describing the CALSIM II simulations and associated post-processing is contained in Appendix F.

The Table A amounts in the long-term water supply agreements increase over time. Although most contractors' Table A amounts had reached their maximum value by 1995 when the Monterey Amendment was executed, some contractors' Table A amounts had not. Under the baseline scenario and all alternatives, Table A amounts would continue to increase after 1995 in accordance with the long-term water supply contracts.

The Monterey Amendment-related transfers and retirements of Table A amounts that actually occurred between 1995 and 2003 were assumed to occur under NPA2. These transfers and retirements of Table A amounts together with expected future Monterey Amendment-related transfers were assumed to occur under Alternative 5. The transfers and retirements of Table A amounts assumed for each of the alternatives analyzed in detail are shown in Table 11-1. Table A amounts for each of the alternatives are shown in Table 11-2. The Table A amounts reflect both the increases called for in the long-term water supply contracts and assumed transfers between contractors.

### **11.4 SWP DELIVERIES FOR NO PROJECT ALTERNATIVES**

The following discussion provides information on collective SWP deliveries to agricultural and M&I contractors assuming implementation of the no project alternatives. The proportional deliveries to the two contractor groups under 2003 conditions with the no project alternatives in place are shown in Tables 11-3 and 11-4. The proportional deliveries under the baseline scenario and with the proposed project for the two groups are included in the tables for comparative purposes. Table 11-3 shows Table A deliveries. Table 11-4 shows total deliveries; that is, the sum of Table A and Article 21 deliveries. Tables 11-5 and 11-6 show proportional deliveries to the two contractor groups under 2020 conditions.

Table A deliveries to individual contractors under 2003 and 2020 conditions assuming implementation of the no project alternatives are shown in Tables 11-7 through 11-14. Total deliveries (Table A + Article 21) to individual contractors under 2003 and 2020 conditions assuming implementation of the no project alternatives are shown in Tables 11-15 through 11-22.

TABLE 11-1

TABLE A TRANSFERS (AF)

Transferor	Transferee	Baseline/ No Project Alternative 1	No Project Alternative 2	Court-Ordered No Project Alternative 3	Court-Ordered No Project Alternative 4	Proposed Project/ Alternative 5	Applicable Levels of Development
KCWA	Mojave WA	0	25,000	0	0	25,000 <sup>1</sup>	2003, 2020
KCWA	Alameda Co., Zone 7	0	7,000	0	0	7,000 <sup>1</sup>	2003, 2020
KCWA	Alameda Co., Zone 7	0	15,000	0	0	15,000 <sup>1</sup>	2003, 2020
KCWA	Castaic Lake WA	0	41,000	0	0	41,000 <sup>1</sup>	2003, 2020
KCWA	Palmdale WD	0	4,000	0	0	4,000 <sup>1</sup>	2003, 2020
KCWA	Alameda Co., Zone 7	0	10,000	0	0	10,000 <sup>1</sup>	2003, 2020
KCWA	Alameda Co., Zone 7	0	2,219	0	0	2,219 <sup>1</sup>	2003, 2020
KCWA	Napa Co.	0	4,025	0	0	4,025 <sup>1</sup>	2003, 2020
KCWA	Solano County WA	0	5,756	0	0	5,756 <sup>1</sup>	2003, 2020
KCWA	Coachella VWD	0	0	0	0	12,000 <sup>1</sup>	2020
KCWA	Desert WA	0	0	0	0	4,000 <sup>1</sup>	2020
Tulare LB WSD	AVEK WA	3,000	3,000	3,000	3,000	3,000	2003, 2020
Tulare LB WSD	Dudley Ridge WD	3,973	3,973	3,973	3,973	3,973	2003, 2020
Tulare LB WSD	Alameda Co., Zone 7	400	400	400	400	400	2003, 2020
Tulare LB WSD	County of Kings	5,000	5,000	5,000	5,000	5,000	2003, 2020
Tulare LB WSD	Coachella VWD	9,900	9,900	9,900	9,900	9,900	2003, 2020
MWDSC	Coachella VWD	88,100	88,100	88,100	88,100	88,100	2020
MWDSC	Desert WA	11,900	11,900	11,900	11,900	11,900	2020

Note:

1. This Table A transfer is a component of the Monterey Amendment Article 53 KCWA commitment of 130 TAF of Table A transfers.

TABLE 11-2

TABLE A AMOUNTS FOR ALTERNATIVES (AF)

SWP Contractor	2003 No Project 1	2020 No Project 1	2003 No Project 2	2020 No Project 2	2003 Court-Ordered No Project 3 & 4	2020 Court-Ordered No Project 3 & 4	2003 Proposed Project	2020 Proposed Project
County of Butte	3,500	27,500	3,500	27,500	1,594	12,388	3,500	27,500
Plumas County FC&WCD	1,690	2,700	1,690	2,700	770	1,216	1,690	2,700
City of Yuba City	9,600	9,600	9,600	9,600	4,372	4,325	9,600	9,600
Napa County FC&WCD	17,450	24,900	21,475	28,925	7,947	11,217	21,475	28,925
Solano County WA	41,000	42,000	46,756	47,756	18,672	18,920	46,756	47,756
Alameda Co. FC&WCD, Zone 7	46,400	46,400	80,619	80,619	21,132	20,902	80,619	80,619
Alameda County WD	42,000	42,000	42,000	42,000	19,128	18,920	42,000	42,000
Santa Clara Valley WD	100,000	100,000	100,000	100,000	45,543	45,048	100,000	100,000
Oak Flat WD	5,700	5,700	5,700	5,700	2,596	2,568	5,700	5,700
County of Kings	9,000	9,000	9,000	9,000	4,099	4,054	9,000	9,000
Dudley Ridge WD	61,673	61,673	61,673	61,673	28,087	27,783	57,343	57,343
Empire West Side ID	3,000	3,000	3,000	3,000	1,366	1,351	3,000	3,000
KCWA (M&I)	134,600	134,600	134,600	134,600	61,300	60,635	134,600	134,600
KCWA (Ag)	1,018,800	1,018,800	904,800	904,800	463,987	458,953	864,130	848,130
Tulare Lake Basin WSD	96,227	96,227	96,227	96,227	43,824	43,349	96,227	96,227
San Luis Obispo Co. FC&WCD	25,000	25,000	25,000	25,000	11,386	11,262	25,000	25,000
Santa Barbara Co. FC&WCD	45,486	45,486	45,486	45,486	20,715	20,491	45,486	45,486
Antelope Valley-East Kern WA	141,400	141,400	141,400	141,400	64,397	63,698	141,400	141,400
Castaic Lake WA (31A)	12,700	12,700	12,700	12,700	5,784	5,721	12,700	12,700
Castaic Lake WA	41,500	41,500	82,500	82,500	18,900	18,695	82,500	82,500
Coachella Valley WD	33,000	121,100	33,000	121,100	15,029	54,554	33,000	133,100
Crestline-Lake Arrowhead WA	5,800	5,800	5,800	5,800	2,641	2,613	5,800	5,800
Desert WA	38,100	50,000	38,100	50,000	17,352	22,524	38,100	54,000
Littlerock Creek ID	2,300	2,300	2,300	2,300	1,047	1,036	2,300	2,300
Mojave WA	50,800	50,800	75,800	75,800	23,136	22,885	75,800	75,800
Metropolitan WDSC	2,011,500	1,911,500	2,011,500	1,911,500	916,088	861,100	2,011,500	1,911,500
Palmdale WD	17,300	17,300	21,300	21,300	7,879	7,793	21,300	21,300
San Bernardino Valley MWD	102,600	102,600	102,600	102,600	46,727	46,220	102,600	102,600
San Gabriel Valley MWD	28,800	28,800	28,800	28,800	13,116	12,974	28,800	28,800
San Geronio Pass WA	5,000	17,300	5,000	17,300	2,277	7,793	5,000	17,300
Ventura County FCD	20,000	20,000	20,000	20,000	9,109	9,010	20,000	20,000
Total Agriculture	1,207,100	1,207,100	1,093,100	1,093,100	549,744	543,779	1,048,100	1,032,100
Total M&I	2,964,826	3,010,586	3,078,826	3,124,586	1,350,256	1,356,221	3,078,826	3,140,586
Total	4,171,926	4,217,686	4,171,926	4,217,686	1,900,000	1,900,000	4,126,926	4,172,686

	Baseline	Proposed Project <sup>a</sup>	Alternatives				
			NPA1	NPA2 <sup>a</sup>	CNPA3	CNPA4	A5
Wet Year							
Agricultural Contractors	36.6	33.1	36.6	33.1	37.0	37.3	33.1
M&I Contractors	63.4	66.9	63.4	66.9	63.0	62.7	66.9
Critical Year							
Agricultural Contractors	23.6	26.3	23.4	26.3	26.0	27.5	26.3
M&I Contractors	76.4	73.7	76.6	73.7	74.0	72.5	73.7
Average All							
Agricultural Contractors	32.6	30.8	32.6	30.8	34.7	35.7	30.8
M&I Contractors	67.4	69.2	67.4	69.2	65.3	64.3	69.2
Note:							
a. Does not include effects of water supply management practices.							

	Baseline	Proposed Project <sup>a</sup>	Alternatives				
			NPA1	NPA2 <sup>a</sup>	CNPA3	CNPA4	A5
Wet Year							
Agricultural Contractors	38.5	33.3	38.5	33.3	38.9	39.2	33.3
M&I Contractors	61.5	66.7	61.5	66.7	61.1	60.8	66.7
Critical Year							
Agricultural Contractors	24.4	26.7	24.2	26.7	26.7	28.1	26.7
M&I Contractors	75.6	73.3	75.8	73.3	73.3	71.9	73.3
Average All							
Agricultural Contractors	33.9	31.2	33.9	31.2	35.9	37.1	31.2
M&I Contractors	66.1	68.8	66.1	68.8	64.1	62.9	68.8
Note:							
a. Does not include effects of water supply management practices.							

	Baseline	Proposed Project <sup>a</sup>	Alternatives				
			NPA1	NPA2 <sup>a</sup>	CNPA3	CNPA4	A5
Wet Year							
Agricultural Contractors	27.2	24.1	27.2	23.7	28.0	28.7	24.1
M&I Contractors	72.8	75.9	72.8	76.3	72.0	71.3	75.9
Critical Year							
Agricultural Contractors	20.4	25.0	20.6	17.3	24.2	28.8	25.0
M&I Contractors	79.6	75.0	79.4	82.7	75.8	71.2	75.0
Average All							
Agricultural Contractors	25.1	24.5	25.1	22.0	27.9	31.0	24.5
M&I Contractors	74.9	75.5	74.9	78.0	72.1	69.0	75.5
Note:							
a. Does not include effects of water supply management practices.							

	Baseline	Proposed Project <sup>a</sup>	Alternatives				
			NPA1	NPA2 <sup>a</sup>	CNPA3	CNPA4	A5
Wet Year							
Agricultural Contractors	28.4	24.6	28.3	25.1	29.1	29.8	24.6
M&I Contractors	71.6	75.4	71.7	74.9	70.9	70.2	75.4
Critical Year							
Agricultural Contractors	21.3	25.6	21.5	18.5	24.9	29.2	25.6
M&I Contractors	78.7	74.4	78.5	81.5	75.1	70.8	74.4
Average All							
Agricultural Contractors	26.1	24.9	26.0	23.0	28.7	31.7	24.9
M&I Contractors	73.9	75.1	74.0	77.0	71.3	68.3	75.1
Note:							
a. Does not include effects of water supply management practices.							

TABLE 11-7

**ESTIMATED AVERAGE TABLE A DELIVERIES UNDER 2003 CONDITIONS FOR BASELINE SCENARIO AND  
NO PROJECT ALTERNATIVE 1**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	NPA1	% Diff	Baseline	NPA1	% Diff	Baseline	NPA1	% Diff
Napa County FC&WCD	6.8	6.8	0	4.7	4.9	4	6.5	6.5	0
Solano County WA	37.7	37.7	0	17.8	18.3	3	34.2	34.3	0
Alameda Co. FC&WCD, Zone 7	46.4	46.4	0	19.9	20.4	7	41.1	41.2	0
Alameda County WD	35.2	35.2	0	16.8	17.3	3	31.9	32.0	0
Santa Clara Valley WD	84.7	84.7	0	40.1	41.3	3	76.6	76.8	0
Oak Flat WD	5.3	5.3	0	1.6	1.7	6	4.4	4.4	0
County of Kings	8.6	8.6	0	2.5	2.6	4	7.0	7.0	0
Dudley Ridge WD	57.0	57.0	0	17.5	17.9	2	47.2	47.3	0
Empire West Side ID	2.8	2.8	0	0.9	0.9	0	2.3	2.3	0
KCWA (Ag)	938.5	938.5	0	289.9	295.2	2	778.3	779.5	0
KCWA (Muni)	134.6	134.6	0	57.8	59.3	3	119.4	119.8	0
Tulare Lake Basin WSD	87.3	87.3	0	27.4	27.9	2	73.0	73.1	0
San Luis Obispo Co. FC&WCD	4.4	4.4	0	3.5	3.6	3	4.3	4.3	0
Santa Barbara Co. FC&WCD	26.3	26.3	0	19.5	20.2	4	25.2	25.3	0
Antelope Valley-East Kern WA	64.9	64.9	0	46.0	47.6	3	61.8	62.1	1
Castaic Lake WA (Ag)	11.7	11.7	0	3.6	3.7	3	9.7	9.7	0
Castaic Lake WA (Muni)	41.5	41.5	0	17.8	18.3	3	36.8	36.9	0
Coachella Valley WD	19.3	19.3	0	9.2	9.5	3	17.5	17.5	0
Crestline-Lake Arrowhead WA	1.9	1.9	0	1.7	1.7	0	1.9	1.9	0
Desert WA	31.2	31.2	0	15.1	15.5	3	28.3	28.4	0
Littlerock Creek ID	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Mojave WA	13.2	13.2	0	12.2	12.4	2	13.0	13.1	1
Metropolitan WDSC	1,272.5	1,272.5	0	771.5	792.7	3	1,310.1	1,314.3	0
Palmdale WD	14.9	14.9	0	7.0	7.2	3	13.5	13.5	0
San Bernardino Valley MWD	69.8	69.8	0	38.1	39.2	3	64.4	64.6	0
San Gabriel Valley MWD	18.1	18.1	0	10.4	10.7	3	16.8	16.9	1
San Geronio Pass WA	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0
Ventura County FCD	5.0	5.0	0	4.6	4.7	2	4.9	4.9	0
Total All Contractors	3,039.7	3,039.7	0	1,457.3	1,494.5	3	2,830.1	2,837.5	0
Total Agricultural Contractors	1,111.2	1,111.2	0	343.5	349.7	2	921.8	923.2	0
Total Municipal Contractors	1,928.4	1,928.4	0	1,113.9	1,144.8	3	1,908.3	1,914.3	0

TABLE 11-8

**ESTIMATED AVERAGE TABLE A DELIVERIES UNDER 2003 CONDITIONS FOR BASELINE SCENARIO AND  
NO PROJECT ALTERNATIVE 2**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	NPA2	% Diff	Baseline	NPA2	% Diff	Baseline	NPA2	% Diff
Napa County FC&WCD	6.8	6.8	0	4.7	4.8	2	6.5	6.5	0
Solano County WA	37.7	37.7	0	17.8	18.1	2	34.2	34.3	0
Alameda Co. FC&WCD, Zone 7	46.4	66.5	43	19.9	26.5	34	41.1	57.7	40
Alameda County WD	35.2	35.2	0	16.8	17.0	1	31.9	31.9	0
Santa Clara Valley WD	84.7	84.7	0	40.1	40.7	1	76.6	76.8	0
Oak Flat WD	5.3	5.4	2	1.6	1.8	13	4.4	4.5	2
County of Kings	8.6	8.8	2	2.5	2.9	16	7.0	7.2	3
Dudley Ridge WD	57.0	53.9	-5	17.5	18.2	4	47.2	45.2	-4
Empire West Side ID	2.8	2.8	0	0.9	1.0	11	2.3	2.4	4
KCWA (Ag)	938.5	804.2	-14	289.9	274.1	-5	778.3	677.5	-13
KCWA (Muni)	134.6	134.6	0	57.8	58.6	1	119.4	120.1	1
Tulare Lake Basin WSD	87.3	89.3	2	27.4	30.5	11	73.0	75.3	3
San Luis Obispo Co. FC&WCD	4.4	4.4	0	3.5	3.6	3	4.3	4.3	0
Santa Barbara Co. FC&WCD	26.3	26.3	0	19.5	19.9	2	25.2	25.2	0
Antelope Valley-East Kern WA	64.9	64.9	0	46.0	46.8	2	61.8	61.9	0
Castaic Lake WA (Ag)	11.7	12.0	3	3.6	4.0	11	9.7	10.0	3
Castaic Lake WA (Muni)	41.5	68.6	65	17.8	26.6	49	36.8	59.0	60
Coachella Valley WD	19.3	19.3	0	9.2	9.4	2	17.5	17.5	0
Crestline-Lake Arrowhead WA	1.9	1.9	0	1.7	1.7	0	1.9	1.9	0
Desert WA	31.2	31.2	0	15.1	15.3	1	28.3	28.4	0
Littlerock Creek ID	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Mojave WA	13.2	13.2	0	12.2	12.2	0	13.0	13.0	0
Metropolitan WDSC	1,272.5	1,272.5	0	771.5	787.2	2	1,310.1	1,315.3	0
Palmdale WD	14.9	14.9	0	7.0	7.1	1	13.5	13.5	0
San Bernardino Valley MWD	69.8	69.8	0	38.1	38.7	2	64.4	64.5	0
San Gabriel Valley MWD	18.1	18.1	0	10.4	10.6	2	16.8	16.8	0
San Geronio Pass WA	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0
Ventura County FCD	5.0	5.0	0	4.6	4.6	0	4.9	4.9	0
Total All Contractors	3,039.7	2,952.0	-3	1,457.3	1,481.9	2	2,830.1	2,775.7	-2
Total Agricultural Contractors	1,111.2	976.4	-12	343.5	332.4	-3	921.8	822.1	-11
Total Municipal Contractors	1,928.4	1,975.6	2	1,113.9	1,149.5	3	1,908.3	1,953.6	2

Note: Does not include effects of water supply management practices.

TABLE 11-9

**ESTIMATED AVERAGE TABLE A DELIVERIES UNDER 2003 CONDITIONS FOR BASELINE SCENARIO AND  
COURT- ORDERED NO PROJECT ALTERNATIVE 3**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	C-A NPA3	% Diff	Baseline	C-A NPA3	% Diff	Baseline	C-A NPA3	% Diff
Napa County FC&WCD	6.8	6.8	0	4.7	4.5	-4	6.5	6.4	-2
Solano County WA	37.7	37.6	0	17.8	18.5	4	34.2	33.4	-2
Alameda Co. FC&WCD, Zone 7	46.4	45.7	-2	19.9	18.5	-7	41.1	38.8	-6
Alameda County WD	35.2	35.0	-1	16.8	16.8	0	31.9	30.9	-3
Santa Clara Valley WD	84.7	84.1	-1	40.1	40.0	0	76.6	74.2	-3
Oak Flat WD	5.3	5.3	0	1.6	1.8	13	4.4	4.6	5
County of Kings	8.6	8.7	1	2.5	2.8	12	7.0	7.4	6
Dudley Ridge WD	57.0	57.7	1	17.5	19.7	13	47.2	50.4	7
Empire West Side ID	2.8	2.8	0	0.9	1.0	11	2.3	2.4	4
KCWA (Ag)	938.5	949.3	1	289.9	327.5	13	778.3	830.7	7
KCWA (Muni)	134.6	132.6	-1	57.8	53.9	-7	119.4	112.6	-6
Tulare Lake Basin WSD	87.3	88.4	1	27.4	31.2	14	73.0	78.0	7
San Luis Obispo Co. FC&WCD	4.4	4.4	0	3.5	3.5	0	4.3	4.2	-2
Santa Barbara Co. FC&WCD	26.3	26.3	0	19.5	20.0	3	25.2	25.2	0
Antelope Valley-East Kern WA	64.9	64.9	0	46.0	46.9	2	61.8	61.8	0
Castaic Lake WA (Ag)	11.7	11.8	1	3.6	4.1	14	9.7	10.4	7
Castaic Lake WA (Muni)	41.5	40.9	-1	17.8	16.6	-7	36.8	34.7	-6
Coachella Valley WD	19.3	19.2	-1	9.2	9.2	0	17.5	17.0	-3
Crestline-Lake Arrowhead WA	1.9	1.9	0	1.7	1.7	0	1.9	1.9	0
Desert WA	31.2	31.0	-1	15.1	15.2	1	28.3	27.5	-3
Littlerock Creek ID	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Mojave WA	13.2	13.2	0	12.2	12.3	1	13.0	13.1	1
Metropolitan WDSC	1,272.5	1,264.4	-1	771.5	767.8	-1	1,310.1	1,273.7	-3
Palmdale WD	14.9	14.8	-1	7.0	6.9	-1	13.5	13.0	-4
San Bernardino Valley MWD	69.8	69.8	0	38.1	38.7	2	64.4	63.5	-1
San Gabriel Valley MWD	18.1	18.1	0	10.4	10.6	2	16.8	16.6	-1
San Geronio Pass WA	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0
Ventura County FCD	5.0	5.0	0	4.6	4.7	2	4.9	4.9	0
Total All Contractors	3,039.7	3,039.6	0	1,457.3	1,494.5	3	2,830.1	2,837.5	0
Total Agricultural Contractors	1,111.2	1,124.0	1	343.5	388.0	13	921.8	983.9	7
Total Municipal Contractors	1,928.4	1,915.6	-1	1,113.9	1,106.5	-1	1,908.3	1,853.6	-3

TABLE 11-10

**ESTIMATED AVERAGE TABLE A DELIVERIES UNDER 2003 CONDITIONS FOR BASELINE SCENARIO AND  
COURT-ORDERED NO PROJECT ALTERNATIVE 4**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	C-A NPA4	% Diff	Baseline	C-A NPA4	% Diff	Baseline	C-A NPA4	% Diff
Napa County FC&WCD	6.8	7.6	12	4.7	5.6	19	6.5	7.2	11
Solano County WA	37.7	35.9	-5	17.8	15.7	-12	34.2	30.6	-11
Alameda Co. FC&WCD, Zone 7	46.4	44.9	-3	19.9	17.7	-11	41.1	37.6	-8
Alameda County WD	35.2	34.3	-3	16.8	16.1	-4	31.9	30.0	-6
Santa Clara Valley WD	84.7	82.5	-3	40.1	38.2	-5	76.6	72.0	-6
Oak Flat WD	5.3	5.3	0	1.6	1.9	19	4.4	4.7	7
County of Kings	8.6	8.7	1	2.5	2.9	16	7.0	7.6	9
Dudley Ridge WD	57.0	58.1	2	17.5	20.8	19	47.2	51.8	10
Empire West Side ID	2.8	2.8	0	0.9	1.0	11	2.3	2.5	9
KCWA (Ag)	938.5	956.7	2	289.9	345.5	19	778.3	854.9	10
KCWA (Muni)	134.6	130.2	-3	57.8	51.3	-11	119.4	108.8	-9
Tulare Lake Basin WSD	87.3	90.7	4	27.4	34.9	27	73.0	81.9	12
San Luis Obispo Co. FC&WCD	4.4	4.4	0	3.5	3.5	0	4.3	4.2	-2
Santa Barbara Co. FC&WCD	26.3	26.0	-1	19.5	19.5	0	25.2	24.6	-2
Antelope Valley-East Kern WA	64.9	64.4	-1	46.0	47.0	2	61.8	61.6	0
Castaic Lake WA (Ag)	11.7	11.9	2	3.6	4.3	19	9.7	10.7	10
Castaic Lake WA (Muni)	41.5	40.1	-3	17.8	15.8	-11	36.8	33.5	-9
Coachella Valley WD	19.3	18.9	-2	9.2	9.1	-1	17.5	16.7	-5
Crestline-Lake Arrowhead WA	1.9	1.9	0	1.7	1.7	0	1.9	1.9	0
Desert WA	31.2	30.6	-2	15.1	14.9	-1	28.3	27.1	-4
Littlerock Creek ID	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Mojave WA	13.2	13.2	0	12.2	12.3	1	13.0	13.1	1
Metropolitan WDSC	1,272.5	1,263.6	-1	771.5	753.9	-2	1310.1	1257.1	-4
Palmdale WD	14.9	14.5	-3	7.0	6.6	-6	13.5	12.6	-7
San Bernardino Valley MWD	69.8	69.3	-1	38.1	38.8	2	64.4	63.3	-2
San Gabriel Valley MWD	18.1	18.0	0	10.4	10.6	2	16.8	16.6	-1
San Geronio Pass WA	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0
Ventura County FCD	5.0	5.0	0	4.6	4.7	2	4.9	4.9	0
Total All Contractors	3,039.7	3039.6	0	1,457.3	1,494.5	3	2,830.1	2,837.5	0
Total Agricultural Contractors	1,111.2	1134.7	2	343.5	411.5	20	921.8	1,014.4	10
Total Municipal Contractors	1,928.4	1905.0	-1	1,113.9	1,083.0	-3	1,908.3	1,823.1	-4

TABLE 11-11

**ESTIMATED AVERAGE TABLE A DELIVERIES UNDER 2020 CONDITIONS FOR BASELINE SCENARIO AND  
NO PROJECT ALTERNATIVE 1**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	NPA1	% Diff	Baseline	NPA1	% Diff	Baseline	NPA1	% Diff
Napa County FC&WCD	24.4	24.4	0	8.9	9.2	3	20.1	20.2	11
Solano County WA	41.2	41.2	0	15.0	15.6	4	33.9	34.1	0
Alameda Co. FC&WCD, Zone 7	45.5	45.5	0	16.5	17.1	4	37.5	37.6	1
Alameda County WD	41.2	41.2	0	15.0	15.6	4	33.9	34.1	0
Santa Clara Valley WD	98.2	98.2	0	35.7	37.0	4	80.8	81.1	0
Oak Flat WD	5.1	5.1	0	1.3	1.3	0	3.8	3.8	0
County of Kings	8.3	8.3	0	2.0	2.1	5	6.1	6.1	0
Dudley Ridge WD	55.8	55.8	0	13.8	14.6	6	41.2	41.3	0
Empire West Side ID	2.7	2.7	0	0.7	0.7	0	2.0	2.0	0
KCWA (Ag)	919.7	919.7	0	228.6	240.6	5	679.0	681.9	0
KCWA (Muni)	132.1	132.1	0	48.1	49.8	4	108.8	109.2	0
Tulare Lake Basin WSD	85.9	85.9	0	21.6	22.7	5	63.7	64.0	1
San Luis Obispo Co. FC&WCD	24.5	24.5	0	8.9	9.3	4	20.2	20.3	1
Santa Barbara Co. FC&WCD	44.6	44.6	0	16.2	16.8	4	36.8	36.9	0
Antelope Valley-East Kern WA	138.7	138.7	0	50.1	52.0	4	113.9	114.4	0
Castaic Lake WA (Ag)	11.5	11.5	0	2.8	3.0	7	8.5	8.5	0
Castaic Lake WA (Muni)	40.7	40.7	0	14.8	15.4	4	33.5	33.7	1
Coachella Valley WD	118.5	118.5	0	41.9	43.5	4	96.7	97.0	0
Crestline-Lake Arrowhead WA	5.7	5.7	0	2.1	2.1	0	4.7	4.7	0
Desert WA	49.1	49.1	0	17.9	18.5	3	40.4	40.6	1
Littlerock Creek ID	2.3	2.3	0	0.8	0.9	13	1.9	1.9	0
Mojave WA	49.9	49.9	0	18.1	18.8	4	41.1	41.2	0
Metropolitan WDSC	1,876.3	1,876.3	0	682.8	707.8	4	1545.0	1551.1	0
Palmdale WD	17.0	17.0	0	6.2	6.4	3	14.0	14.0	0
San Bernardino Valley MWD	100.7	100.7	0	36.6	38.0	4	82.9	83.3	1
San Gabriel Valley MWD	28.3	28.3	0	10.3	10.7	4	23.3	23.4	0
San Geronio Pass WA	17.0	17.0	0	6.2	6.4	3	14.0	14.0	0
Ventura County FCD	19.6	19.6	0	7.1	7.4	4	16.2	16.2	0
Total All Contractors	4,004.6	4,004.6	0	1,330.2	1,383.4	4	3,203.8	3,216.6	0
Total Agricultural Contractors	1,089.7	1,089.1	0	270.8	285.0	5	804.3	807.7	0
Total Municipal Contractors	2,915.5	2,915.5	0	1,059.4	1,098.3	4	2,399.5	2,408.9	0

TABLE 11-12

**ESTIMATED AVERAGE TABLE A DELIVERIES UNDER 2020 CONDITIONS FOR BASELINE  
SCENARIO AND ALTERNATIVE 2**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	NPA2	% Diff	Baseline	NPA2	% Diff	Baseline	NPA2	% Diff
Napa County FC&WCD	24.4	28.3	16	8.9	10.09.8	12	20.1	23.0	14
Solano County WA	41.2	46.7	13	15.0	16.6	11	33.9	38.0	12
Alameda Co. FC&WCD, Zone 7	45.5	78.0	71	16.5	24.5	48	37.5	61.2	63
Alameda County WD	41.2	41.2	0	15.0	15.3	2	33.9	34.1	1
Santa Clara Valley WD	98.2	98.2	0	35.7	36.5	2	80.8	81.2	0
Oak Flat WD	5.1	5.2	2	1.3	1.3	0	3.8	3.8	0
County of Kings	8.3	8.4	1	2.0	2.0	0	6.1	6.1	0
Dudley Ridge WD	55.8	51.8	-7	13.8	12.7	-8	41.2	38.5	-7
Empire West Side ID	2.7	2.7	0	0.7	0.7	0	2.0	2.0	0
KCWA (Ag)	919.7	774.9	-16	228.6	191.6	-16	679.0	577.0	-15
KCWA (Muni)	132.1	132.1	0	48.1	49.2	2	108.8	109.3	0
Tulare Lake Basin WSD	85.9	86.1	0	21.6	21.3	-1	63.7	64.2	1
San Luis Obispo Co. FC&WCD	24.5	24.5	0	8.9	9.1	2	20.2	20.3	0
Santa Barbara Co. FC&WCD	44.6	44.6	0	16.2	16.6	2	36.8	36.9	0
Antelope Valley-East Kern WA	138.7	138.7	0	50.1	51.2	2	113.9	114.5	1
Castaic Lake WA (Ag)	11.5	11.5	0	2.8	2.8	0	8.5	8.5	0
Castaic Lake WA (Muni)	40.7	79.6	96	14.8	24.3	64	33.5	62.0	85
Coachella Valley WD	118.5	118.5	0	41.9	42.8	2	96.7	97.1	0
Crestline-Lake Arrowhead WA	5.7	5.7	0	2.1	2.1	0	4.7	4.7	0
Desert WA	49.1	49.1	0	17.9	18.3	2	40.4	40.6	0
Littlerock Creek ID	2.3	2.3	0	0.8	0.8	0	1.9	1.9	0
Mojave WA	49.9	73.6	47	18.1	24.1	33	41.1	58.5	42
Metropolitan WDSC	1,876.3	1,876.3	0	682.8	698.3	2	1,545.0	1552.2	0
Palmdale WD	17.0	20.8	22	6.2	7.2	16	14.0	16.8	20
San Bernardino Valley MWD	100.7	100.7	0	36.6	37.5	2	82.9	83.3	0
San Gabriel Valley MWD	28.3	28.3	0	10.3	10.5	2	23.3	23.4	0
San Geronio Pass WA	17.0	17.0	0	6.2	6.3	2	14.0	14.0	0
Ventura County FCD	19.6	19.6	0	7.1	7.3	3	16.2	16.2	0
Total All Contractors	4,004.6	3,964.1	-1	1,330.2	1,341.0	1	3,203.8	3,189.3	0
Total Agricultural Contractors	1,089.7	940.5	-14	270.8	232.4	-14	804.3	700.1	-13
Total Municipal Contractors	2,915.5	3,023.6	4	1,059.4	1,108.6	5	2,399.5	2,489.3	4

Note: Does not include effects of water supply management practices.

TABLE 11-13

**ESTIMATED AVERAGE TABLE A DELIVERIES UNDER 2020 CONDITIONS FOR BASELINE SCENARIO AND COURT-ORDERED NO PROJECT ALTERNATIVE 3**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	C-A NPA3	% Diff	Baseline	C-A NPA3	% Diff	Baseline	C-A NPA3	% Diff
Napa County FC&WCD	24.4	24.2	-1	8.9	8.8	-1	20.1	19.4	-3
Solano County WA	41.2	40.8	-1	15.0	14.8	-1	33.9	32.8	-3
Alameda Co. FC&WCD, Zone 7	45.5	45.1	-1	16.5	16.4	-1	37.5	36.2	-3
Alameda County WD	41.2	40.8	-1	15.0	14.8	-1	33.9	32.8	-3
Santa Clara Valley WD	98.2	97.1	-1	35.7	35.3	-1	80.8	78.1	-3
Oak Flat WD	5.1	5.3	4	1.3	1.6	23	3.8	4.2	11
County of Kings	8.3	8.6	4	2.0	2.5	25	6.1	6.8	11
Dudley Ridge WD	55.8	57.4	3	13.8	17.1	24	41.2	45.9	11
Empire West Side ID	2.7	2.8	4	0.7	0.8	14	2.0	2.2	10
KCWA (Ag)	919.7	945.6	3	228.6	283.1	24	679.0	757.6	12
KCWA (Muni)	132.1	130.7	-1	48.1	47.6	-1	108.8	105.6	-3
Tulare Lake Basin WSD	85.9	88.3	3	21.6	26.7	24	63.7	71.1	12
San Luis Obispo Co. FC&WCD	24.5	24.3	-1	8.9	8.8	-1	20.2	19.5	-3
Santa Barbara Co. FC&WCD	44.6	44.2	-1	16.2	16.1	-1	36.8	35.5	-4
Antelope Valley-East Kern WA	138.7	137.3	-1	50.1	49.7	-1	113.9	110.3	-3
Castaic Lake WA (Ag)	11.5	11.8	3	2.8	3.5	25	8.5	9.4	11
Castaic Lake WA (Muni)	40.7	40.3	-1	14.8	14.7	-1	33.5	32.4	-3
Coachella Valley WD	118.5	117.6	-1	41.9	42.0	0	96.7	94.4	-2
Crestline-Lake Arrowhead WA	5.7	5.6	-2	2.1	2.0	-1	4.7	4.5	-4
Desert WA	49.1	48.6	-1	17.9	17.7	1	40.4	39.0	-3
Littlerock Creek ID	2.3	2.2	-4	0.8	0.8	0	1.9	1.8	-5
Mojave WA	49.9	49.3	-1	18.1	17.9	-1	41.1	39.7	-3
Metropolitan WDSC	1,876.3	1,856.2	-1	682.8	675.4	-1	1,545.0	1,492.0	-3
Palmdale WD	17.0	16.8	-1	6.2	6.1	-2	14.0	13.5	-4
San Bernardino Valley MWD	100.7	99.6	-1	36.6	36.3	-1	82.9	80.1	-3
San Gabriel Valley MWD	28.3	28.0	-1	10.3	10.2	-1	23.3	22.5	-3
San Geronio Pass WA	17.0	16.8	-1	6.2	6.1	-2	14.0	13.5	-4
Ventura County FCD	19.6	19.4	-1	7.1	7.1	0	16.2	15.6	-4
Total All Contractors	4,004.6	4,004.6	0	1,330.2	1,384.1	4	3,203.8	3,216.0	0
Total Agricultural Contractors	1,089.7	1,119.7	3	270.8	335.4	24	804.3	897.4	12
Total Municipal Contractors	2,915.5	2,884.9	-1	1,059.4	1,048.7	-1	2,399.5	2,318.6	-3

TABLE 11-14

**ESTIMATED AVERAGE TABLE A DELIVERIES UNDER 2020 CONDITIONS FOR BASELINE SCENARIO AND  
COURT-ORDERED NO PROJECT ALTERNATIVE 4**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	C-A NPA4	% Diff	Baseline	C-A NPA4	% Diff	Baseline	C-A NPA4	% Diff
Napa County FC&WCD	24.4	23.6	-3	8.9	7.7	-13	20.1	17.6	-12
Solano County WA	41.2	39.7	-4	15.0	12.8	-15	33.9	29.4	-13
Alameda Co. FC&WCD, Zone 7	45.5	43.9	-4	16.5	14.2	-14	37.5	32.6	-13
Alameda County WD	41.2	39.8	-3	15.0	13.0	-13	33.9	29.7	-12
Santa Clara Valley WD	98.2	94.7	-4	35.7	31.0	-13	80.8	70.8	-12
Oak Flat WD	5.1	5.4	6	1.3	1.8	38	3.8	4.7	24
County of Kings	8.3	8.8	6	2.0	3.0	50	6.1	7.5	23
Dudley Ridge WD	55.8	58.9	6	13.8	20.4	48	41.2	51.1	24
Empire West Side ID	2.7	2.9	7	0.7	1.0	43	2.0	2.5	25
KCWA (Ag)	919.7	969.7	5	228.6	336.2	47	679.0	842.4	24
KCWA (Muni)	132.1	127.1	-4	48.1	41.1	-15	108.8	94.2	-13
Tulare Lake Basin WSD	85.9	90.5	5	21.6	31.8	47	63.7	79.1	24
San Luis Obispo Co. FC&WCD	24.5	23.6	-4	8.9	7.6	-15	20.2	17.5	-13
Santa Barbara Co. FC&WCD	44.6	42.9	-4	16.2	13.9	-14	36.8	31.8	-14
Antelope Valley-East Kern WA	138.7	137.5	-1	50.1	49.1	-2	113.9	109.8	-4
Castaic Lake WA (Ag)	11.5	12.1	5	2.8	4.2	50	8.5	10.5	24
Castaic Lake WA (Muni)	40.7	39.2	-4	14.8	12.7	-14	33.5	29.0	-13
Coachella Valley WD	118.5	118.0	0	41.9	42.0	0	96.7	94.6	-2
Crestline-Lake Arrowhead WA	5.7	5.5	-4	2.1	1.8	-14	4.7	4.1	-13
Desert WA	49.1	48.6	-1	17.9	17.4	-3	40.4	38.7	-4
Littlerock Creek ID	2.3	2.2	-4	0.8	0.7	-13	1.9	1.6	-16
Mojave WA	49.9	50.8	2	18.1	19.8	9	41.1	43.2	5
Metropolitan WDSC	1,876.3	1,836.6	-2	682.8	632.7	-7	1545.0	1423.8	-8
Palmdale WD	17.0	16.3	-4	6.2	5.3	-15	14.0	12.1	-14
San Bernardino Valley MWD	100.7	102.6	2	36.6	40.1	10	82.9	87.2	5
San Gabriel Valley MWD	28.3	28.8	2	10.3	11.2	9	23.3	24.5	5
San Geronio Pass WA	17.0	16.3	-4	6.2	5.3	-15	14.0	12.1	-14
Ventura County FCD	19.6	18.9	-4	7.1	6.1	-14	16.2	14.0	-14
Total All Contractors	4,004.6	4,004.6	0	1,330.2	1,384.0	4	3,203.8	3,216.0	0
Total Agricultural Contractors	1,089.7	1,148.3	5	270.8	398.3	47	804.3	997.8	24
Total Municipal Contractors	2,915.5	2,856.4	-2	1,059.4	985.7	-7	2,399.5	2,218.2	-8

TABLE 11-15

**ESTIMATED AVERAGE TOTAL DELIVERIES UNDER 2003 CONDITIONS FOR BASELINE SCENARIO AND  
NO PROJECT ALTERNATIVE 1**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	NPA1	% Diff	Baseline	NPA1	% Diff	Baseline	NPA1	% Diff
Napa County FC&WCD	8.9	8.5	-4	4.9	5.1	4	7.5	7.3	-3
Solano County WA	40.0	39.6	-1	18.1	18.6	3	35.2	35.2	0
Alameda Co. FC&WCD, Zone 7	48.8	48.7	0	20.2	20.7	2	42.2	42.3	0
Alameda County WD	38.1	38.0	0	17.1	17.6	3	33.3	33.3	0
Santa Clara Valley WD	95.3	94.6	-1	41.3	42.5	3	81.6	81.5	0
Oak Flat WD	5.3	5.3	0	1.6	1.7	6	4.4	4.4	0
County of Kings	8.6	8.6	0	2.5	2.6	4	7.0	7.0	0
Dudley Ridge WD	61.3	61.2	0	18.0	18.4	2	49.4	49.4	0
Empire West Side ID	6.1	5.9	-3	1.3	1.3	0	3.9	3.8	-3
KCWA (Ag)	1,138.8	1,135.0	0	311.7	317.0	2	879.5	878.6	0
KCWA (Muni)	134.6	134.6	0	57.8	59.3	3	119.4	119.8	0
Tulare Lake Basin WSD	141.2	139.6	-1	33.2	33.7	2	99.7	98.7	-1
San Luis Obispo Co. FC&WCD	4.4	4.4	0	3.5	3.6	3	4.3	4.3	0
Santa Barbara Co. FC&WCD	26.3	26.3	0	19.5	20.2	4	25.2	25.3	0
Antelope Valley-East Kern WA	68.4	68.3	0	46.4	48.0	3	63.5	63.8	0
Castaic Lake WA (Ag)	11.7	11.7	0	3.6	3.7	3	9.7	9.7	0
Castaic Lake WA (Muni)	43.8	43.4	-1	18.1	18.6	3	37.8	37.8	0
Coachella Valley WD	25.6	25.1	-2	9.9	10.2	3	20.5	20.3	-1
Crestline-Lake Arrowhead WA	1.9	1.9	0	1.7	1.7	0	1.9	1.9	0
Desert WA	45.5	44.3	-3	16.6	17.0	2	35.2	34.6	-2
Littlerock Creek ID	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Mojave WA	13.2	13.2	0	12.2	12.4	2	13.0	13.1	1
Metropolitan WDSC	1,487.6	1,464.0	0	806.4	827.6	3	1,429.9	1,430.7	0
Palmdale WD	14.9	14.9	0	7.0	7.2	3	13.5	13.5	0
San Bernardino Valley MWD	69.8	69.8	0	38.1	39.2	3	64.4	64.6	0
San Gabriel Valley MWD	18.1	18.1	0	10.4	10.7	3	16.8	16.9	1
San Geronio Pass WA	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0
Ventura County FCD	5.0	5.0	0	4.6	4.7	2	4.9	4.9	0
Total All Contractors	3,563.2	3,550.2	0	1,525.9	1,563.1	2	3,103.9	3,102.7	0
Total Agricultural Contractors	1,373.0	1,367.5	0	372.0	378.2	2	1,053.5	1,051.6	0
Total Municipal Contractors	2,190.1	2,182.6	0	1,154.0	1,184.9	3	2,050.3	2,051.1	0

TABLE 11-16

**ESTIMATED AVERAGE TOTAL DELIVERIES UNDER 2003 CONDITIONS FOR BASELINE SCENARIO AND  
NO PROJECT ALTERNATIVE 2**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	NPA2	% Diff	Baseline	NPA2	% Diff	Baseline	NPA2	% Diff
Napa County FC&WCD	8.9	9.0	1	4.9	5.1	4	7.5	7.3	0
Solano County WA	40.0	40.3	1	18.1	18.4	2	35.2	35.5	1
Alameda Co. FC&WCD, Zone 7	48.8	69.2	42	20.2	26.9	33	42.2	59.0	40
Alameda County WD	38.1	38.5	1	17.1	17.4	2	33.3	33.5	1
Santa Clara Valley WD	95.3	96.7	1	41.3	42.2	2	81.6	82.5	1
Oak Flat WD	5.3	5.4	2	1.6	1.8	13	4.4	4.5	2
County of Kings	8.6	8.8	2	2.5	2.9	16	7.0	7.2	3
Dudley Ridge WD	61.3	58.4	-5	18.0	18.7	4	49.4	47.5	-4
Empire West Side ID	6.1	6.3	3	1.3	1.5	15	3.9	4.2	8
KCWA (Ag)	1,138.8	1,016.6	-11	311.7	297.4	-5	879.5	784.8	-11
KCWA (Muni)	134.6	134.6	0	57.8	58.6	1	119.4	120.1	1
Tulare Lake Basin WSD	141.2	150.3	6	33.2	37.4	13	99.7	105.4	6
San Luis Obispo Co. FC&WCD	4.4	4.4	0	3.5	3.6	3	4.3	4.3	0
Santa Barbara Co. FC&WCD	26.3	26.3	0	19.5	19.9	2	25.2	25.2	0
Antelope Valley-East Kern WA	68.4	68.6	0	46.4	47.2	2	63.5	63.7	0
Castaic Lake WA (Ag)	11.7	12.0	3	3.6	4.0	11	9.7	10.0	3
Castaic Lake WA (Muni)	43.8	71.5	63	18.1	27.0	49	37.8	60.3	60
Coachella Valley WD	25.6	25.8	0	9.9	10.1	2	20.5	20.7	1
Crestline-Lake Arrowhead WA	1.9	1.9	0	1.7	1.7	0	1.9	1.9	0
Desert WA	45.5	45.9	1	16.6	17.0	2	35.2	35.6	0
Littlerock Creek ID	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Mojave WA	13.2	13.2	0	12.2	12.2	0	13.0	13.0	0
Metropolitan WDSC	1,487.6	1,489.1	0	806.4	830.2	3	1,429.9	1,433.4	0
Palmdale WD	14.9	14.9	0	7.0	7.1	1	13.5	13.5	0
San Bernardino Valley MWD	69.8	69.8	0	38.1	38.7	2	64.4	64.5	0
San Gabriel Valley MWD	18.1	18.1	0	10.4	10.6	2	16.8	16.8	0
San Geronio Pass WA	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0
Ventura County FCD	5.0	5.0	0	4.6	4.6	0	4.9	4.9	0
Total All Contractors	3,563.2	3,500.5	-2	1,525.9	1,562.0	2	3,103.9	3,069.7	-1
Total Agricultural Contractors	1,373.0	1,257.8	-8	372.0	363.5	-8	1,053.5	963.7	-9
Total Municipal Contractors	2,190.1	2,242.8	2	1,154.0	1,198.6	4	2,050.3	2,106.0	3

TABLE 11-17

**ESTIMATED AVERAGE TOTAL DELIVERIES UNDER 2003 CONDITIONS FOR BASELINE SCENARIO AND  
COURT-ORDERED NO PROJECT ALTERNATIVE 3**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	CNPA3	% Diff	Baseline	CNPA3	% Diff	Baseline	CNPA3	% Diff
Napa County FC&WCD	8.9	8.5	-4	4.9	4.7	-4	7.5	7.2	-4
Solano County WA	40.0	39.5	-1	18.1	18.8	4	35.2	34.2	-3
Alameda Co. FC&WCD, Zone 7	48.8	48.0	-2	20.2	18.8	-7	42.2	39.9	-5
Alameda County WD	38.1	37.8	-1	17.1	17.1	0	33.3	32.2	-3
Santa Clara Valley WD	95.3	86.0	-10	41.3	41.2	0	81.6	78.9	-3
Oak Flat WD	5.3	5.3	0	1.6	1.8	13	4.4	4.6	4
County of Kings	8.6	8.7	1	2.5	2.8	12	7.0	7.4	6
Dudley Ridge WD	61.3	61.9	9	18.0	20.2	12	49.4	52.5	6
Empire West Side ID	6.1	5.9	-3	1.3	1.4	8	3.9	3.9	0
KCWA (Ag)	1,138.8	1,145.8	1	311.7	349.3	12	879.5	929.8	6
KCWA (Muni)	134.6	132.6	-1	57.8	53.9	-7	119.4	112.6	-6
Tulare Lake Basin WSD	141.2	140.7	0	33.2	37.0	11	99.7	103.6	4
San Luis Obispo Co. FC&WCD	4.4	4.4	0	3.5	3.5	0	4.3	4.2	-2
Santa Barbara Co. FC&WCD	26.3	26.3	0	19.5	20.0	3	25.2	25.2	0
Antelope Valley-East Kern WA	68.4	68.6	0	46.4	47.3	2	63.5	63.5	0
Castaic Lake WA (Ag)	11.7	11.8	1	3.6	4.1	14	9.7	10.4	7
Castaic Lake WA (Muni)	43.8	42.8	-2	18.1	16.9	-1	37.8	36.6	-3
Coachella Valley WD	25.6	25.0	-2	9.9	9.9	0	20.5	19.8	-3
Crestline-Lake Arrowhead WA	1.9	1.9	0	1.7	1.7	0	1.9	1.9	0
Desert WA	45.5	44.1	-3	16.6	16.7	1	35.2	33.7	-4
Littlerock Creek ID	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Mojave WA	13.2	13.2	0	12.2	12.3	1	13.0	13.1	0
Metropolitan WDSC	1,487.6	1,475.9	-1	806.4	802.7	0	1,429.9	1,390.1	-3
Palmdale WD	14.9	14.8	-1	7.0	6.9	-1	13.5	13.0	-4
San Bernardino Valley MWD	69.8	69.8	0	38.1	38.7	0	64.4	63.5	-1
San Gabriel Valley MWD	18.1	18.1	0	10.4	10.6	2	16.8	16.6	-1
San Geronio Pass WA	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0
Ventura County FCD	5.0	5.0	0	4.6	4.7	2	4.9	4.9	0
Total All Contractors	3,563.2	3,550.1	0	1,525.9	1,563.1	2	3,103.9	3,102.7	0
Total Agricultural Contractors	1,373.0	1,380.3	0	372.0	416.5	12	1,053.5	1,112.3	6
Total Municipal Contractors	2,190.1	2,169.8	-1	1,154.0	1,146.6	-1	2,050.3	1,990.4	-3

TABLE 11-18

**ESTIMATED AVERAGE TOTAL DELIVERIES UNDER 2003 CONDITIONS FOR BASELINE SCENARIO AND COURT-ORDERED NO PROJECT ALTERNATIVE 4**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	CNPA4	% Diff	Baseline	CNPA4	% Diff	Baseline	CNPA4	% Diff
Napa County FC&WCD	8.9	9.3	4	4.9	5.8	18	7.5	8.0	7
Solano County WA	40.0	37.8	-6	18.1	16.0	-12	35.2	31.5	-10
Alameda Co. FC&WCD, Zone 7	48.8	47.2	-3	20.2	18.0	-11	42.2	38.7	-8
Alameda County WD	38.1	37.1	-3	17.1	16.4	-4	33.3	31.3	-6
Santa Clara Valley WD	95.3	92.4	-3	41.3	39.4	-5	81.6	76.7	-6
Oak Flat WD	5.3	5.3	0	1.6	1.9	19	4.4	4.7	7
County of Kings	8.6	8.7	1	2.5	2.9	16	7.0	7.6	9
Dudley Ridge WD	61.3	62.3	2	18.0	21.3	18	49.4	53.9	9
Empire West Side ID	6.1	5.9	-3	1.3	1.4	8	3.9	4.0	3
KCWA (Ag)	1,138.8	1,153.2	1	311.7	367.3	18	879.5	954.0	8
KCWA (Muni)	134.6	130.2	-3	57.8	57.3	-1	119.4	108.8	-9
Tulare Lake Basin WSD	141.2	143.0	1	33.2	40.7	23	99.7	107.5	8
San Luis Obispo Co. FC&WCD	4.4	4.4	0	3.5	3.5	0	4.3	4.2	-2
Santa Barbara Co. FC&WCD	26.3	26.0	-1	19.5	19.5	0	25.2	24.6	-2
Antelope Valley-East Kern WA	68.4	67.8	-1	46.4	47.4	2	63.5	63.3	0
Castaic Lake WA (Ag)	11.7	11.9	1	3.6	4.3	19	9.7	10.7	10
Castaic Lake WA (Muni)	43.8	42.0	-4	18.1	16.1	-11	37.8	34.4	-9
Coachella Valley WD	25.6	24.7	-3	9.9	9.8	-1	20.5	19.5	-5
Crestline-Lake Arrowhead WA	1.9	1.9	0	1.7	1.7	0	1.9	1.9	0
Desert WA	45.5	43.7	-4	16.6	16.4	-1	35.2	33.3	-5
Littlerock Creek ID	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0
Mojave WA	13.2	13.2	0	12.2	12.3	1	13.0	13.1	1
Metropolitan WDSC	1,487.6	1,475.1	-1	806.4	788.8	-2	1,429.9	1,373.5	-4
Palmdale WD	14.9	14.5	-3	7.0	6.6	-6	13.5	12.6	-7
San Bernardino Valley MWD	69.8	69.3	-1	38.1	38.8	2	64.4	63.3	-2
San Gabriel Valley MWD	18.1	18.0	-1	10.4	10.6	2	16.8	16.6	-1
San Geronio Pass WA	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0
Ventura County FCD	5.0	5.0	0	4.6	4.7	2	4.9	4.9	0
Total All Contractors	3,563.2	3,550.1	0	1,525.9	1,563.1	2	3,103.9	3,102.7	0
Total Agricultural Contractors	1,373.0	1,390.5	1	372.0	440.0	18	1,053.5	1,151.2	9
Total Municipal Contractors	2,190.1	2,159.2	-1	1,154.0	1,123.1	-3	2,050.3	1,951.5	-5

TABLE 11-19

**ESTIMATED AVERAGE TOTAL DELIVERIES UNDER 2020 CONDITIONS FOR BASELINE SCENARIO AND  
NO PROJECT ALTERNATIVE 1**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	NPA1	% Diff	Baseline	NPA1	% Diff	Baseline	NPA1	% Diff
Napa County FC&WCD	24.5	24.4	0	9.3	9.6	3	20.2	20.3	0
Solano County WA	41.3	41.2	0	15.4	16.0	4	34.1	34.2	0
Alameda Co. FC&WCD, Zone 7	45.8	45.6	0	17.0	17.6	3	37.8	37.8	0
Alameda County WD	41.9	41.8	0	15.5	16.1	4	34.4	34.5	0
Santa Clara Valley WD	100.3	99.7	-1	37.5	38.8	3	82.3	82.2	0
Oak Flat WD	5.1	5.1	0	1.3	1.3	0	3.8	3.8	0
County of Kings	8.3	8.3	0	2.0	2.1	5	6.1	6.1	0
Dudley Ridge WD	57.6	57.5	0	14.3	15.1	6	42.3	42.3	0
Empire West Side ID	3.9	3.7	-5	1.2	1.2	0	2.7	2.6	-4
KCWA (Ag)	999.1	992.3	-1	251.3	263.3	5	727.1	726.2	0
KCWA (Muni)	132.1	132.1	0	48.1	49.8	3	108.8	109.2	0
Tulare Lake Basin WSD	85.9	102.5	-3	28.4	29.5	4	75.5	74.3	-2
San Luis Obispo Co. FC&WCD	24.5	24.5	0	8.9	9.3	5	20.2	20.3	0
Santa Barbara Co. FC&WCD	44.6	44.6	0	16.2	16.8	4	36.8	36.9	0
Antelope Valley-East Kern WA	139.7	139.6	0	50.6	52.5	4	114.6	115.0	0
Castaic Lake WA (Ag)	11.5	11.5	0	2.8	3.0	7	8.5	8.5	0
Castaic Lake WA (Muni)	40.8	40.7	0	15.2	15.8	4	33.7	33.8	0
Coachella Valley WD	120.4	120.2	0	42.8	44.4	4	98.0	98.1	0
Crestline-Lake Arrowhead WA	5.7	5.7	0	2.1	2.1	0	4.7	4.7	0
Desert WA	52.7	52.5	0	20.0	20.6	3	46.1	42.7	0
Littlerock Creek ID	2.3	2.3	0	0.8	0.9	13	1.9	1.9	0
Mojave WA	49.9	49.9	0	18.1	18.8	4	41.1	41.2	0
Metropolitan WDSC	1,956.7	1,941.4	-1	728.2	753.2	3	1597.1	1595.1	0
Palmdale WD	17.0	17.0	0	6.2	6.4	3	14.0	14.0	0
San Bernardino Valley MWD	100.7	100.7	0	36.6	38.0	4	82.9	83.3	1
San Gabriel Valley MWD	28.3	28.3	0	10.3	10.7	4	23.3	23.4	0
San Geronio Pass WA	17.0	17.0	0	6.2	6.4	3	14.0	14.0	0
Ventura County FCD	19.6	19.6	0	7.1	7.4	4	16.2	16.2	0
Total All Contractors	4,196.9	4,169.9	-1	1,413.4	1,466.6	4	3,324.6	3,322.6	0
Total Agricultural Contractors	1,191.1	1,181.0	-1	301.3	315.5	5	865.9	863.9	0
Total Municipal Contractors	3,005.9	2,988.9	-1	1,112.2	1,151.1	4	2,458.7	2,458.7	0

TABLE 11-20

**ESTIMATED AVERAGE TOTAL DELIVERIES UNDER 2020 CONDITIONS FOR BASELINE SCENARIO AND  
NO PROJECT ALTERNATIVE 2**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	NPA2	% Diff	Baseline	NPA2	% Diff	Baseline	NPA2	% Diff
Napa County FC&WCD	24.5	28.4	16	9.3	10.4	2	20.2	23.1	14
Solano County WA	41.3	46.8	12	15.4	17.0	10	34.1	38.2	12
Alameda Co. FC&WCD, Zone 7	45.8	78.4	71	17.0	25.0	47	37.8	61.5	63
Alameda County WD	41.9	41.9	0	15.5	15.8	2	34.4	34.8	1
Santa Clara Valley WD	100.3	100.4	0	37.5	38.2	2	82.3	82.7	0
Oak Flat WD	5.1	5.2	2	1.3	1.3	0	3.8	3.8	0
County of Kings	8.3	8.4	1	2.0	2.0	0	6.1	6.1	0
Dudley Ridge WD	57.6	53.6	-7	14.3	13.2	-8	42.3	39.5	-6
Empire West Side ID	3.9	3.9	0	1.2	1.2	0	2.7	2.7	0
KCWA (Ag)	999.1	852.9	-15	251.3	214.3	-15	727.1	623.8	-14
KCWA (Muni)	132.1	132.1	0	48.1	49.2	2	108.8	109.3	0
Tulare Lake Basin WSD	85.9	105.7	0	28.4	28.1	-1	75.5	76.2	1
San Luis Obispo Co. FC&WCD	24.5	24.5	0	8.9	9.1	2	20.2	20.3	0
Santa Barbara Co. FC&WCD	44.6	44.6	0	16.2	16.6	2	36.8	36.9	0
Antelope Valley-East Kern WA	139.7	139.7	0	50.6	51.7	2	114.6	115.1	0
Castaic Lake WA (Ag)	11.5	11.5	0	2.8	2.8	0	8.5	8.5	0
Castaic Lake WA (Muni)	40.8	79.8	95	15.2	24.8	63	33.7	62.2	85
Coachella Valley WD	120.4	120.4	0	42.8	43.7	2	98.0	98.3	0
Crestline-Lake Arrowhead WA	5.7	5.7	0	2.1	2.1	0	4.7	4.7	0
Desert WA	52.7	52.6	0	20.0	20.4	2	46.1	42.9	0
Littlerock Creek ID	2.3	2.3	0	0.8	0.8	0	1.9	1.9	0
Mojave WA	49.9	73.6	47	18.1	24.1	33	41.1	58.5	42
Metropolitan WDSC	1,956.7	1,956.6	0	728.2	743.7	2	1597.1	1603.4	0
Palmdale WD	17.0	20.8	22	6.2	7.2	16	14.0	16.8	20
San Bernardino Valley MWD	100.7	100.7	0	36.6	37.5	2	82.9	83.3	0
San Gabriel Valley MWD	28.3	28.3	0	10.3	10.5	2	23.3	23.4	0
San Geronio Pass WA	17.0	17.0	0	6.2	6.3	2	14.0	14.0	0
Ventura County FCD	19.6	19.6	0	7.1	7.3	3	16.2	16.2	0
Total All Contractors	4,196.9	4,155.0	-1	1,413.4	1,424.2	1	3,324.6	3,308.0	0
Total Agricultural Contractors	1,191.1	1,041.0	-12	301.3	262.9	-13	865.9	760.6	-12
Total Municipal Contractors	3,005.9	3,114.0	3	1,112.2	1,161.4	4	2,458.7	2,547.5	4

TABLE 11-21

**ESTIMATED AVERAGE TOTAL DELIVERIES UNDER 2020 CONDITIONS FOR BASELINE SCENARIO AND  
COURT-ORDERED NO PROJECT ALTERNATIVE 3**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	CNPA3	% Diff	Baseline	CNPA3	% Diff	Baseline	CNPA3	% Diff
Napa County FC&WCD	24.5	24.2	-1	9.3	9.2	-1	20.2	19.5	-3
Solano County WA	41.3	40.8	-1	15.4	15.2	-1	34.1	32.9	-3
Alameda Co. FC&WCD, Zone 7	45.8	45.2	-1	17.0	16.9	-1	37.8	36.4	-4
Alameda County WD	41.9	41.4	0	15.5	15.3	1	34.4	33.1	-4
Santa Clara Valley WD	100.3	98.6	-2	37.5	37.1	0	82.3	79.3	-4
Oak Flat WD	5.1	5.3	4	1.3	1.6	23	3.8	4.2	10
County of Kings	8.3	8.6	4	2.0	2.5	25	6.1	6.8	11
Dudley Ridge WD	57.6	59.1	3	14.3	17.6	23	42.3	46.9	11
Empire West Side ID	3.9	3.8	-3	1.2	1.3	8	2.7	2.8	4
KCWA (Ag)	999.1	1,018.2	2	251.3	305.8	22	727.1	801.9	10
KCWA (Muni)	132.1	130.7	-1	48.1	47.8	-1	108.8	105.1	-3
Tulare Lake Basin WSD	85.9	105.3	0	28.4	33.5	18	75.5	81.5	8
San Luis Obispo Co. FC&WCD	24.5	24.3	-1	8.9	8.8	-1	20.2	19.5	-3
Santa Barbara Co. FC&WCD	44.6	44.2	-1	16.2	16.1	-1	36.8	35.5	-3
Antelope Valley-East Kern WA	139.7	138.2	-1	50.6	50.2	-1	114.6	110.9	-3
Castaic Lake WA (Ag)	11.5	11.8	3	2.8	3.5	25	8.5	9.4	11
Castaic Lake WA (Muni)	40.8	40.3	-1	15.2	15.1	-1	33.7	32.5	-4
Coachella Valley WD	120.4	119.3	-1	42.8	42.9	0	98.0	95.5	-3
Crestline-Lake Arrowhead WA	5.7	5.6	-2	2.1	2.0	-5	4.7	4.5	-4
Desert WA	52.7	52.0	-1	20.0	19.8	-1	46.1	41.1	-11
Littlerock Creek ID	2.3	2.2	-4	0.8	0.8	0	1.9	1.8	-5
Mojave WA	49.9	49.3	-1	18.1	17.9	-1	41.1	39.7	-3
Metropolitan WDSC	1,956.7	1,921.9	-2	728.2	720.8	-1	1597.1	1,536.3	-4
Palmdale WD	17.0	16.8	-1	6.2	6.1	-2	14.0	13.5	-4
San Bernardino Valley MWD	100.7	99.6	-1	36.6	36.3	-1	82.9	80.1	-3
San Gabriel Valley MWD	28.3	28.0	-1	10.3	10.2	-1	23.3	22.5	-3
San Geronio Pass WA	17.0	16.8	-1	6.2	6.1	-2	14.0	13.5	-4
Ventura County FCD	19.6	19.4	-1	7.1	7.1	0	16.2	15.6	-4
Total All Contractors	4,196.9	4,170.9	-1	1,413.4	1,467.3	4	3,324.6	3,322.6	0
Total Agricultural Contractors	1,191.1	1,212.1	2	301.3	365.9	21	865.9	953.7	10
Total Municipal Contractors	3,005.9	2,958.9	-2	1,112.2	1,101.5	-1	2,458.7	2,368.8	-4

TABLE 11-22

**ESTIMATED AVERAGE TOTAL DELIVERIES UNDER 2020 CONDITIONS FOR BASELINE SCENARIO AND COURT-ORDERED NO PROJECT ALTERNATIVE 4**

SWP Contractors	Average Wet Year			Average Critically Dry Year			Average Year		
	Baseline	CNPA4	% Diff	Baseline	CNPA4	% Diff	Baseline	CNPA4	% Diff
Napa County FC&WCD	24.5	23.6	-4	9.3	8.1	-14	20.2	17.7	-12
Solano County WA	41.3	39.7	-4	15.4	13.2	-14	34.1	29.5	-13
Alameda Co. FC&WCD, Zone 7	45.8	45.0	-2	17.0	14.7	-13	37.8	32.8	-13
Alameda County WD	41.9	40.4	-4	15.5	13.5	-13	34.4	30.1	-13
Santa Clara Valley WD	100.3	96.2	-4	37.5	32.8	-13	82.3	72.0	-13
Oak Flat WD	5.1	5.4	6	1.3	1.8	38	3.8	4.7	24
County of Kings	8.3	8.8	6	2.0	3.0	50	6.1	7.5	23
Dudley Ridge WD	57.6	60.6	5	14.3	20.9	53	42.3	52.1	23
Empire West Side ID	3.9	3.9	0	1.2	1.5	25	2.7	3.1	15
KCWA (Ag)	999.1	897.1	-10	251.3	358.9	43	727.1	886.7	22
KCWA (Muni)	132.1	127.1	-4	48.1	41.1	-14	108.8	94.2	-13
Tulare Lake Basin WSD	85.9	107.5	2	28.4	38.6	36	75.5	89.5	19
San Luis Obispo Co. FC&WCD	24.5	23.6	-4	8.9	7.6	-15	20.2	17.5	-13
Santa Barbara Co. FC&WCD	44.6	42.9	-4	16.2	13.9	-14	36.8	31.8	-14
Antelope Valley-East Kern WA	139.7	138.4	-1	50.6	49.6	-4	114.6	110.4	-4
Castaic Lake WA (Ag)	11.5	12.1	5	2.8	4.2	50	8.5	10.5	24
Castaic Lake WA (Muni)	40.8	39.2	-4	15.2	13.1	-17	33.7	29.1	-14
Coachella Valley WD	120.4	119.7	-1	42.8	42.9	0	98.0	95.7	-2
Crestline-Lake Arrowhead WA	5.7	5.5	-3	2.1	1.8	-4	4.7	4.1	-13
Desert WA	52.7	52.0	-1	20.0	19.5	-3	46.1	40.8	-11
Littlerock Creek ID	2.3	2.2	-4	0.8	0.7	-13	1.9	1.6	-16
Mojave WA	49.9	50.8	2	18.1	19.8	9	41.1	43.2	5
Metropolitan WDSC	1,956.7	1,902.3	-3	728.2	678.1	-7	1597.1	1468.1	-8
Palmdale WD	17.0	16.3	-4	6.2	5.3	14	14.0	12.1	-14
San Bernardino Valley MWD	100.7	102.6	2	36.6	40.1	10	82.9	87.2	5
San Gabriel Valley MWD	28.3	28.8	2	10.3	11.2	9	23.3	24.5	5
San Geronio Pass WA	17.0	16.3	-4	6.2	5.3	-14	14.0	12.1	-14
Ventura County FCD	19.6	18.9	-4	7.1	6.1	-14	16.2	14.0	-14
Total All Contractors	4,196.9	4,170.9	-1	1,413.4	1,467.2	4	3,324.6	3,322.5	0
Total Agricultural Contractors	1,191.1	1,240.7	4	301.3	428.8	42	865.9	1,054.1	22
Total Municipal Contractors	3,005.9	2,930.4	-3	1,112.2	1,038.5	-7	2,458.7	2,268.4	-8

The estimated proportional deliveries shown in Tables 11-3 through 11-6 and estimated deliveries to individual contractors shown in Tables 11-7 through 11-22 include the effects of the Table A transfers and retirements and the altered water allocation procedures but not the effects of the water supply management practices. This is of no consequence for NPA1, CNPA3, CNPA4 and Alternative 5 because they do not include the water supply management practices. CNPA2 includes some water supply management practices.

#### **11.4.1 No Project Alternative 1**

##### **Deliveries under 2003 Conditions**

As shown in Tables 11-3 and 11-4, the agricultural and M&I contractors proportional Table A and total deliveries for NPA1 and the baseline scenario under 2003 conditions are almost the same. This is because the only difference between the baseline scenario and NPA1 is that the latter includes a state-owned water bank in the Kern Fan Element with a capacity of 350,000 AF. A state-owned water bank would have a minor effect on total SWP deliveries, reducing deliveries slightly in wet years and increasing them slightly in dry years. The effects of the state-owned water bank are described in more detail in Section 11.6.

##### **Future Deliveries**

As shown in Tables 11-5 and 11-6, the agricultural and M&I contractors proportional Table A and total deliveries for NPA1 and the baseline scenario under 2020 conditions are almost the same. This is because the only difference between the baseline scenario and NPA1 is that the latter includes a state-owned water bank in the Kern Fan Element with a capacity of 500,000 AF. A state-owned water bank would have a minor effect on total SWP deliveries, reducing total deliveries slightly in wet years and increasing them slightly in dry years.

#### **11.4.2 No Project Alternative 2**

##### **Deliveries under 2003 Conditions**

NPA2 for the period 1996 through 2003 contains the same components as the proposed project. Consequently, deliveries under NPA2 under 2003 conditions would be the same as for the proposed project. As shown in Tables 11-3 and 11-4, proportional deliveries to the agricultural and M&I contractors would be the same for NPA2 as they are for the proposed project.

##### **Future Deliveries**

NPA 2 for the period 2003 through 2020 contains some of the same components as the proposed project. It does not include the Table A transfers totaling 16,000 AF from KCWA to Desert WA and Coachella Valley WD that are part of the proposed project or most of the water supply management practices. It does not include the altered allocation method, the turnback pool, expanded carryover storage in San Luis Reservoir, flexible storage in Castaic Lake and Lake Perris. It does include out-of-service area storage in groundwater banks developed prior to 2003.

As shown in Table 11-5, the agricultural contractors share of Table A deliveries under NPA2 would be less than under the baseline scenario or with the proposed project in average, average wet and critically dry years. As shown in Table 11-6, the agricultural contractors share

of Table A deliveries under NPA2 would be less than under the baseline scenario in average, average wet and critically dry years and less than the proposed project in average and critically dry years.

### **11.4.3 Court-Ordered No Project Alternative 3**

#### **Deliveries under 2003 Conditions**

As shown in Tables 11-3 and 11-4, the agricultural contractors' proportional Table A and total deliveries for CNPA3 are greater than those for the baseline scenario under 2003 conditions in average, average wet and average critically dry years. This is because the total Table A amount is reduced to 1.9 million AF under this alternative and allocation procedures for water available in excess of 1.9 million AF is more favorable to agricultural contractors than the pre-Monterey Amendment allocation procedures.

#### **Future Deliveries**

As shown in Tables 11-5 and 11-6, the agricultural contractors' proportional Table A and total deliveries for CNPA3 are greater than those for the baseline scenario under 2020 conditions in average, average wet and average critically dry years. This is because the total Table A amount is reduced to 1.9 million AF under this alternative and allocation procedures for water available in excess of 1.9 million AF is more favorable to agricultural contractors than the pre-Monterey Amendment allocation procedures.

### **11.4.4 Court-Ordered No Project Alternative 4**

#### **Deliveries under 2003 Conditions**

As shown in Tables 11-3 and 11-4, the agricultural contractors' proportional Table A and total deliveries for CNPA4 are greater than those for the baseline scenario under 2003 conditions in average, average wet and average critically dry years. This is because the total Table A amount is reduced to 1.9 million AF under this alternative and allocation procedures for water available in excess of 1.9 million AF is more favorable to agricultural contractors than the pre-Monterey Amendment allocation procedures. The agricultural contractors' proportional Table A and total deliveries for CNPA4 are greater than those for the CNPA3 because the method of allocation of water in excess of 1.9 million AF is more favorable to the agricultural contractors under CNPA4 than under CNPA3.

#### **Future Deliveries**

As shown in Tables 11-5 and 11-6, the agricultural contractors' proportional Table A and total deliveries for CNPA4 are greater than those for the baseline scenario under 2020 conditions in average, average wet and average critically dry years. This is because the total Table A amount is reduced to 1.9 million AF under this alternative and allocation procedures for water available in excess of 1.9 million AF is more favorable to agricultural contractors than the pre-Monterey Amendment allocation procedures. Table A and total deliveries for CNPA4 are greater than Table A and total deliveries for the CNPA3. This is because the method of allocation for water in excess of 1.9 million AF is more favorable to the agricultural contractors under CNPA4 than it is under CNPA3.

## 11.5 SWP DELIVERIES FOR ALTERNATIVE 5

### Deliveries under 2003 Conditions

As shown in Tables 11-3 and 11-4, the agricultural contractors' proportional Table A and total average annual deliveries for Alternative 5 are less than those for the baseline scenario under 2003 conditions. This is because the transfer of 114,000 AF of Table A amount from agricultural to M&I contractors reduces deliveries to agricultural contractors in most years. However, deliveries to agricultural contractors increase in critically dry years relative to the baseline scenario because of the altered water allocation procedures.

Total deliveries to contractors under Alternative 5 were similar to but slightly less than with the proposed project under 2003 conditions. Between 1996 and 2004, the Department determined from historical data that all elements of the Monterey Amendment except the Table A transfers increased deliveries to contractors by 44,000 AF for the nine year period (see Chapter 6 for details). Alternative 5 does not include the water supply management practices, the element of the Monterey Amendment primarily responsible for the 44,000 AF increase, and so deliveries under Alternative 5 would have been about 5,000 AF less than deliveries with the proposed project.

### Future Deliveries

As shown in Tables 11-5 and 11-6, the agricultural contractors' proportional Table A and total deliveries for Alternative 5 are less than those for the baseline scenario under 2020 conditions in average and average wet years and greater than those for the baseline scenario in average critically dry years. This is because the transfer of 130,000 AF of Table A amount from agricultural to M&I contractors reduces deliveries to agricultural contractors in most years but the altered allocation procedures increase deliveries to agricultural contractors in critically dry years.

Total deliveries to contractors under Alternative 5 would be less than with the proposed project under 2020 conditions. The Department estimated that the water supply management practices that are a part of the proposed project would increase deliveries to contractors by 50,000 AF per year in the future (see Chapter 6 for details). Alternative 5 does not include the water supply management practices and so deliveries under Alternative 5 would be about 50,000 AF per year less than deliveries with the proposed project.

## 11.6 EFFECTS OF STATE-OWNED KERN WATER BANK ON SWP DELIVERIES

The effects of a state-owned water bank on the Kern Fan Element property were examined by comparing NPA1 to the baseline scenario. NPA1 is almost identical to the baseline scenario. None of the elements of the proposed project would be implemented and the Table A amounts for the two scenarios would be the same. The only difference between the two scenarios is that under NPA1 the Department would develop a water bank on the Kern Fan Element property.

In 1988, the Department purchased approximately 20,000 acres of land in Kern County with the intention of constructing a groundwater bank that would be a part of the SWP. As part of the Monterey Amendment, ownership of these lands, known as the Kern Fan Element property, was transferred to KCWA, and subsequently transferred to the KWBA. It was assumed in NPA1 that if the Department had retained ownership of the Kern Fan Element property it would have constructed a state-owned, locally operated water bank on the property.

The CALSIM II model was used to estimate the effect of a state-owned water bank on the Kern Fan Element property on SWP water allocations. Various assumptions were made regarding operations of the water bank. The assumptions were based on the information contained in the Department's feasibility report for a water bank on the Kern Fan Element property. It was assumed that the water bank would have a storage capacity of 350,000 acre-feet in 2003 and a capacity of 500,000 acre-feet in 2020. Initial storage of SWP water in the bank in 1995 was assumed to be 83,000 acre-feet and that the maximum recharge rates would be 10,500 acre-feet per month in 2003 and 15,000 acre-feet per month in 2020. Maximum extraction rates were assumed to be 6,200 acre-feet per month in 2003 and 8,900 acre-feet per month in 2020. 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. More details on assumed operating parameters for the state-owned water bank are contained in Appendix F.

Table 11-7 shows total SWP Table A deliveries to contractors under the baseline scenario and with NPA1 in wet, critically dry and average years under 2003 conditions with and without a state-owned water bank. The existence of the bank with NPA1 would reduce total 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. The existence of the bank would increase deliveries to contractors in critically dry years by about 2.5 percent because the Department would be able to withdraw water from the bank to supplement deliveries of Table A water to contractors from its other sources. The existence of the bank would have no effect on total deliveries to contractors averaged over the 73-period of hydrologic record.

Table 11-11 shows total SWP Table A deliveries to contractors under the baseline scenario and with NPA1 in wet, critically dry and average years under 2020 conditions with and without a state-owned water bank. The existence of the bank would reduce total deliveries to contractors in wet years by about 0.6 percent and would increase total deliveries to contractors in critically dry years by about 4 percent. The operation of the bank would have no effect on deliveries to contractors averaged over the 73-period of hydrologic record.

## **11.7 ENVIRONMENTAL IMPACTS OF ALTERNATIVES**

The more significant impacts of the proposed project would be felt in four areas, the Sacramento-San Joaquin Delta, at Lake Perris and Castaic Lake, in the San Joaquin Valley portion of Kern County, and in Plumas County. The proposed project would result in increased pumping of water from the Delta in wet months of wet years under certain circumstances which could have an adverse impact on already declining Delta fisheries. The increased pumping would be a consequence of several of the water supply management practices included in the Monterey Amendment, particularly the practice that enables contractors to store SWP water outside their service areas.

Another Monterey water management practice, flexible storage in Castaic Lake and Lake Perris, allows certain contractors to borrow water from the terminal reservoirs. The practice could result in water levels in Castaic Lake and Lake Perris being drawn down for a longer period of time than has occurred in the past. Prolonged drawdown could adversely affect recreation, riparian vegetation, resident fish and raptors that forage over the lakes. It could also result in increased erosion, increased airborne dust and make any usually submerged cultural resources vulnerable to disturbance.

Storage of SWP water outside contractors' service areas, a Monterey water management practice, encourages the development of groundwater banks. Groundwater banks that rely on active recharge of water involve the construction and operation of large areas of percolation ponds. If ponds are built in undeveloped areas they may have adverse effects on terrestrial wildlife and vegetation and cultural resources. Construction of groundwater banks would be the subject of project-level CEQA documents that would analyze the impacts of the construction impacts of the banks and develop appropriate mitigation measures.

The Settlement Agreement provides funds for environmental restoration in Plumas County. Although restoration projects benefit the environment in the long-term they typically have adverse environmental effects during and immediately following the construction period.

Table 11-23 summarizes the impacts of the proposed project and the alternatives to the proposed project relative to the baseline scenario. NPA1, CNPA3 and CNPA4 would avoid all of the adverse environmental impacts of the proposed project with the exception of those associated with the construction and operation of groundwater banking facilities on the Kern Fan Element property. NPA1, CNPA3 and CNPA4 include a state-owned water bank on the Kern Fan Element property. 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.

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 have no effects 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.

TABLE 11-23

## ENVIRONMENTAL IMPACTS OF ALTERNATIVES

	<b>Proposed Project</b>	<b>NPA1</b>	<b>NPA2</b>	<b>CNPA3/CNPA4</b>	<b>Alternative 5</b>
Impacts of Delta fisheries	Increased Delta pumping could adversely affect Delta fisheries	No Impact	1996-2003: same as proposed project. Future: similar to but less than proposed project	No Impact	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

**ENDNOTES**

1. Some SWP contractors believe that the Department would not have built a state-owned water bank on the Kern Fan Element. To do so, the Department would have needed the approval of local water agencies and some believe that that approval would not have been forthcoming.
2. There are doubts about the institutional feasibility of Alternative 5 because the Monterey Amendment was approved as an integrated package of amendments to the long-term water supply contracts that balanced the interests of the signatories in an acceptable manner. If some elements of the package were removed it is unlikely that it would be acceptable to all signatories.
3. California Department of Water Resources, 2006. The State Water Project Delivery Reliability Report 2005.