

The BDCP is...

...a long-term strategy to secure California's water supplies and improve the ecosystem of the Sacramento-San Joaquin River Delta.

The BDCP Co-Equal Goals

WATER SUPPLY RELIABILITY

3 INTAKES

2 GRAVITY FLOW TUNNELS

30 MILES IN LENGTH

9,000 CFS* CAPACITY

*Cubic Feet per Second

ECOSYSTEM RESTORATION

150,000 ACRES OF RESTORED AND PROTECTED HABITAT

56 PROTECTED SPECIES

IMPROVED FLOW CONDITIONS TO BENEFIT FISH IN THE DELTA



The BDCP Would Benefit Millions of Californians

The BDCP is one part of California's overall water portfolio. It aims to protect our unique Delta ecosystem and secure water supplies for a vast part of the California economy.

SECURING WATER SUPPLIES



4.7-5.6

MILLION ACRE-FEET ON AVERAGE ANNUALLY

(An acre-foot is roughly as much water as two California households use, indoors and outdoors, in a year)

CREATING & PROTECTING JOBS



1.1 MILLION

FULL-TIME EQUIVALENT JOBS CREATED AND SAVED FOR CALIFORNIA

(Based on a year by year estimate)

BOOSTING THE ECONOMY



\$84 BILLION

INCREASE IN STATE ECONOMIC PRODUCTIVITY

The BDCP is Important for California

WATER SUPPLY RELIABILITY

25 MILLION PEOPLE

from the Bay Area to San Diego rely on water from the Delta



MORE THAN 3 MILLION ACRES OF FARMLAND

rely on water from the Delta

ECOSYSTEM RESTORATION



DELTA FISH AND WILDLIFE

depend upon a healthy Delta ecosystem

CLIMATE RISK ADAPTATION



LEVEE FAILURES

RISING SEA LEVELS

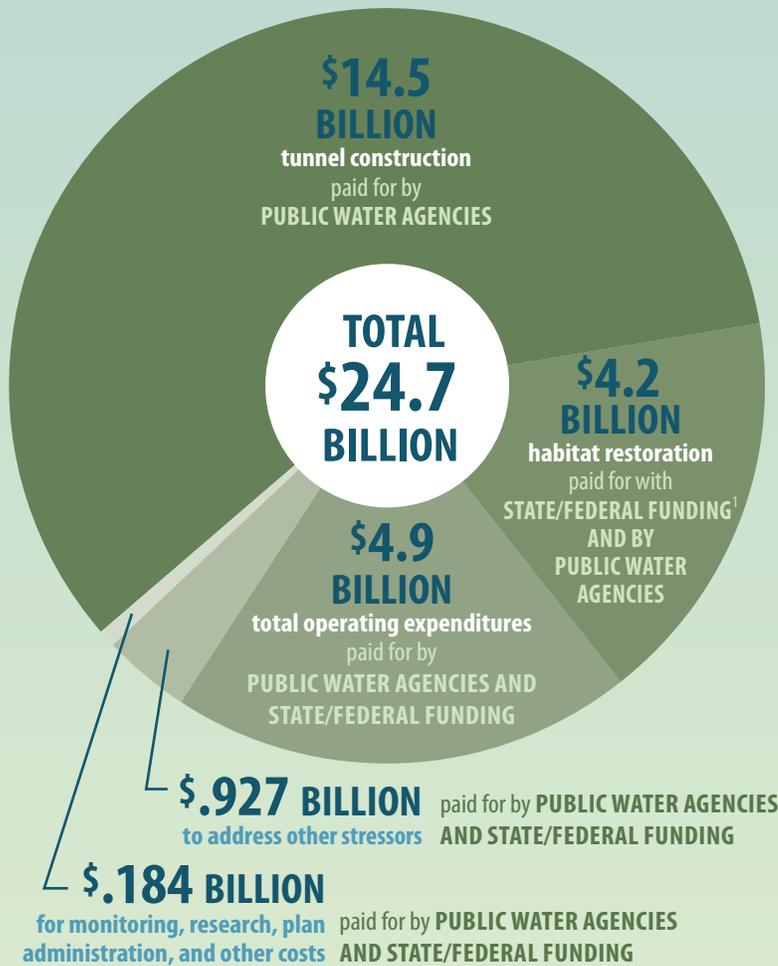
EARTHQUAKES

NATURAL RISKS AND CLIMATE CHANGE

threaten the reliability of the existing system

BDCP Cost and Funding...

...implemented over a 50-year period.



¹ The availability of federal funds will be contingent on future federal appropriations.

The BDCP is Guided by the Best Available Science



ADAPTIVE MANAGEMENT PROGRAM

to implement and monitor BDCP biological goals and objectives



WATER OPERATIONS

by the Department of Water Resources and the U.S. Bureau of Reclamation



OVERSIGHT

by state and federal fish and wildlife agencies

The BDCP Would Benefit the Delta Ecosystem

DELTA RESTORATION

BDCP would contribute to the conservation of 56 species of fish, plants and wildlife in the Delta.

45



SPECIES OF PLANTS & WILDLIFE CONSERVED

through protection and enhancements in the quantity and quality of habitat in the Delta.

52%



INCREASE IN PROTECTED LAND

in the Delta

11



FISH SPECIES BENEFIT,

from an increase in the amount and quality of habitat, food sources, and ecological function of Delta flows. Species include Chinook salmon and delta smelt.

10



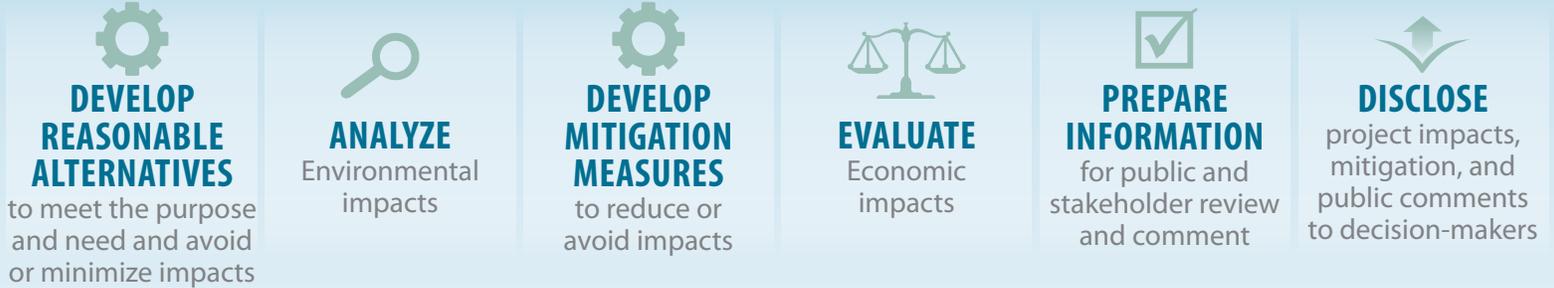
OTHER STRESSOR REDUCTION MEASURES

would reduce adverse effects, such as invasive species, predation, and contaminants, to improve the ecological function of the Delta.

The BDCP Draft EIR/EIS is...

An analysis of BDCP and its alternatives' negative and beneficial impacts on the human environment, and actions to avoid or minimize negative impacts, with the goal of improving the Delta ecosystem and ensuring reliable water supplies for 25 million Californians.

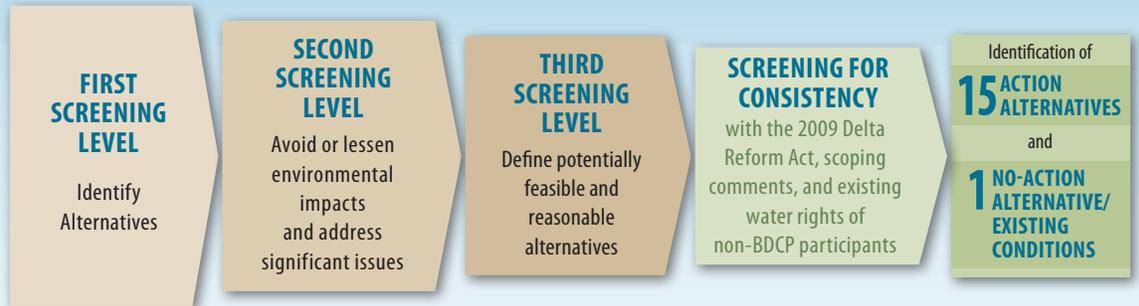
Environmental Analysis Objectives



Robust, Science Driven Screening Process

Alternatives evaluated in the Draft EIR/EIS must:

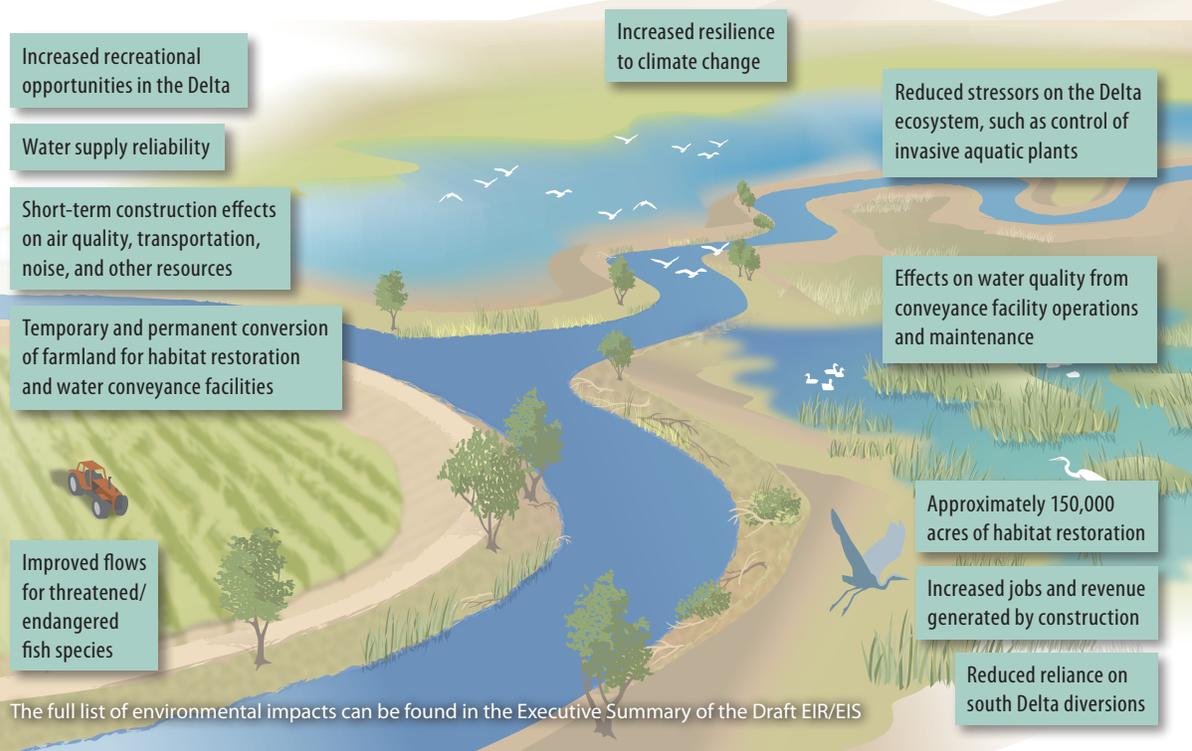
- 1 Be feasible and reasonable
- 2 Meet project objectives
- 3 Avoid or substantially reduce significant impacts



The BDCP Draft EIR/EIS Analyzes more than 600 resource area impact categories. Of these resource impact categories, 65-79 environmental impacts were deemed beneficial, depending upon the alternative evaluated. 57-60 resource areas were found to have no impact, and up to 431 resource area impacts were deemed less than significant.

The Draft EIR/EIS determined 54-72 significant and unavoidable impacts (as determined by the California Environmental Quality Act), depending upon alternative, that may be reduced with the implementation of additional mitigation measures.

BDCP Environmental Benefits and Impacts



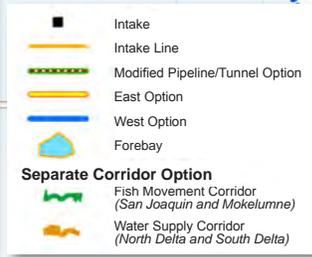
The full list of environmental impacts can be found in the Executive Summary of the Draft EIR/EIS

15 Draft EIR/EIS Action Alternatives:

The Draft EIR/EIS alternatives represent a combination of water conveyance configurations, capacities and operational criteria, habitat restoration and conservation targets, stressor reduction measures, and various avoidance and minimization measures.

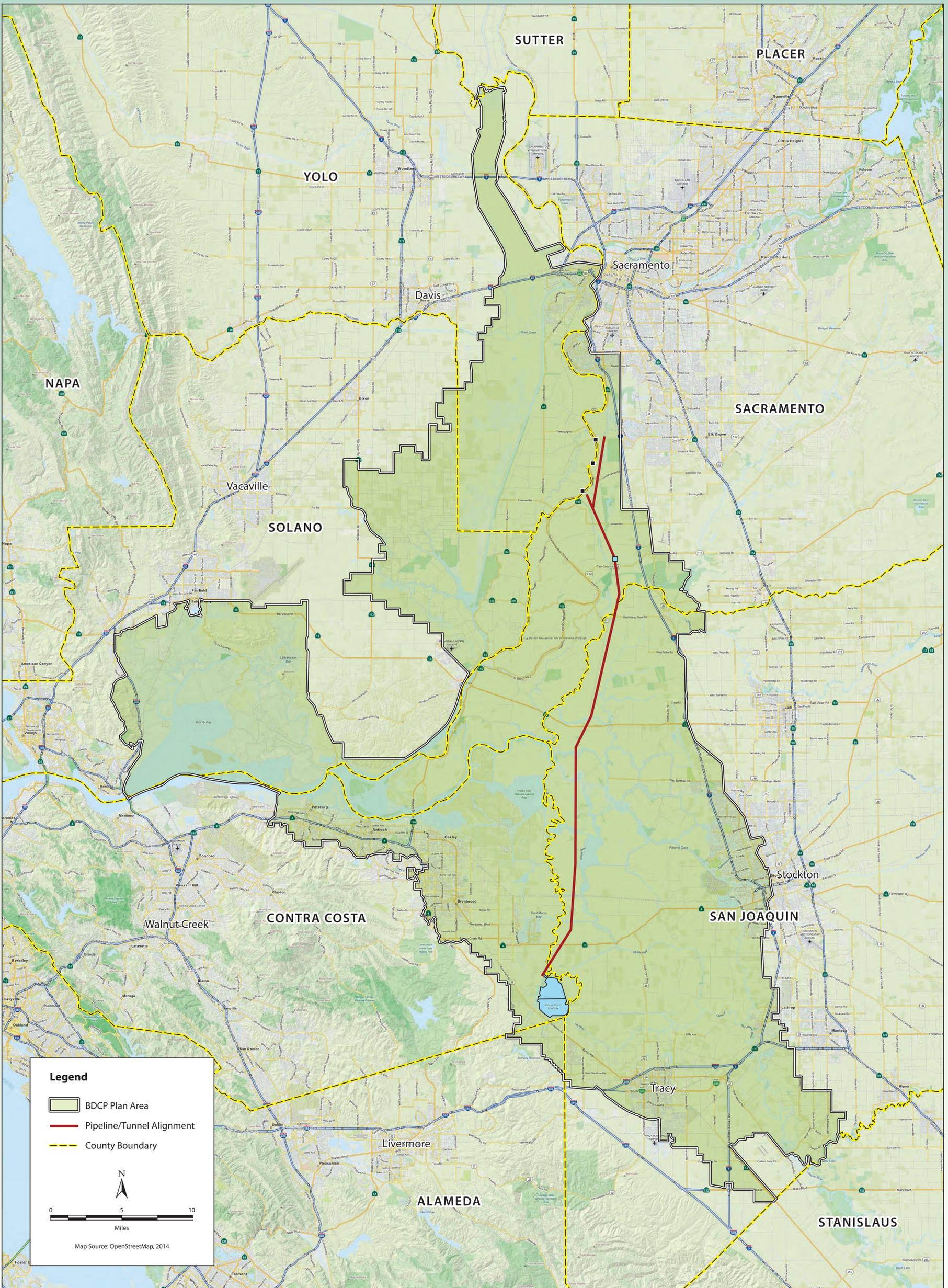
The BDCP will include approximately 150,000 acres of restored and protected habitat for 56 covered species, and improve flow conditions to benefit fish in the Delta.

Alternative	Maximum Water Diversions	Intakes	Action Alternative Examples
1A	15,000 cfs	1-5	ALTERNATIVE 4: <ul style="list-style-type: none"> CEQA (or state) Preferred Project Recently improved to reduce the footprint by nearly one-half of its original size
2A	15,000 cfs	1-3, 6, 7, or 1-5	
3	6,000 cfs	1 & 2	
4	9,000 cfs	2, 3 & 5	
5	3,000 cfs	1	
6A	15,000 cfs	1-5	
7	9,000 cfs	2, 3 & 5	
8	9,000 cfs	2, 3 & 5	
1B	15,000 cfs	1-5	ALTERNATIVE 1B: <ul style="list-style-type: none"> Eastern Delta lined or unlined open canal Five intakes between Clarksburg and Walnut Grove
2B	15,000 cfs	1-3, 6, 7, or 1-5	
6B	15,000 cfs	1-5 isolated	
1C	15,000 cfs	West (W)1	ALTERNATIVE 9: <ul style="list-style-type: none"> Screened intakes at Delta Cross Channel and Georgiana Slough Four basic corridors: <ul style="list-style-type: none"> North Delta corridor (Sacramento River to Middle River) South Delta corridor (Middle River and Victoria Canal to Clifton Court Forebay) San Joaquin separate fish movement corridor Mokelumne separate fish movement corridor
2C	15,000 cfs	W1-W5	
6C	15,000 cfs	W1-W5	
9	15,000 cfs	Delta Cross Channel and Georgiana Slough channel modifications	
NO ACTION/NO PROJECT	Current operations	N/A	

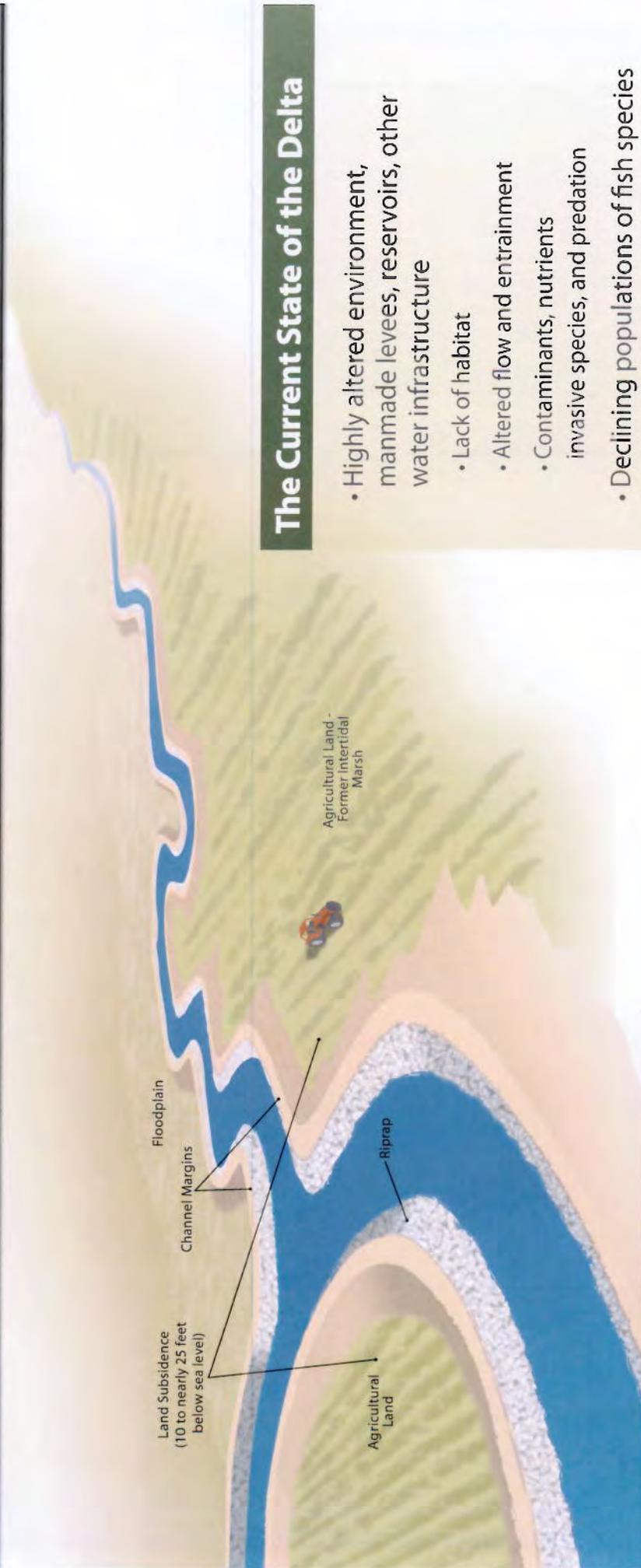


NOTE: A full description of the 15 Action Alternatives, and the No Action Alternative, can be found in Chapter 3 (Alternatives) of the Draft EIR/EIS.

BDCP Plan Area



The Problem



The Current State of the Delta

- Highly altered environment, manmade levees, reservoirs, other water infrastructure
 - Lack of habitat
 - Altered flow and entrainment
 - Contaminants, nutrients
 - Invasive species, and predation
- Declining populations of fish species
- Increasingly unreliable water deliveries
- Increasing threats of continuing land subsidence, seismic events and climate change

The heart of California's water system rests in the Delta, and its current configuration puts it—and the broader economy—at serious risk. The status quo of the Delta—both the ecosystem and the water system depending on it—is not sustainable.

The Proposed BDCP Would Benefit

Millions of Californians

The BDCP is one part of California's overall water portfolio. It aims to protect our unique Delta ecosystem and secure water supplies for a vast part of the California economy by:

SECURING WATER SUPPLIES



4.7-5.6 MILLION ACRE-FEET ON AVERAGE ANNUALLY
(An acre-foot is roughly as much water as two California households use, indoors and outdoors, in a year)

CREATING & PROTECTING JOBS



1.1 MILLION FULL-TIME EQUIVALENT JOBS CREATED AND SAVED FOR CALIFORNIA
(Based on a year by year estimate)

BOOSTING THE ECONOMY



\$84 BILLION INCREASE IN STATE ECONOMIC PRODUCTIVITY

The Delta Ecosystem

DELTA RESTORATION

BDCP would contribute to the conservation of 56 species of fish, plants and wildlife in the Delta.



45 SPECIES OF PLANTS & WILDLIFE CONSERVED
through protection, restoration, creation, and enhancement of the quantity and quality of habitat in the Delta.



11 FISH SPECIES BENEFIT, from an increase in the quantity and quality of habitat, food sources, and ecological function of Delta flows. Species include Chinook salmon and delta smelt.



52% INCREASE IN PROTECTED LAND
in the Delta for habitat.



10 OTHER STRESSOR REDUCTION MEASURES would reduce adverse effects, such as invasive species, predation, and contaminants, to improve the ecological function of the Delta.

The Proposed BDCP is

The proposed project includes:

WATER SUPPLY RELIABILITY

3 INTAKES

2 GRAVITY FLOW TUNNELS

30 MILES IN LENGTH

9,000 CFS* CAPACITY

*Cubic Feet per Second

ECOSYSTEM RESTORATION

150,000 ACRES OF RESTORED AND PROTECTED HABITAT

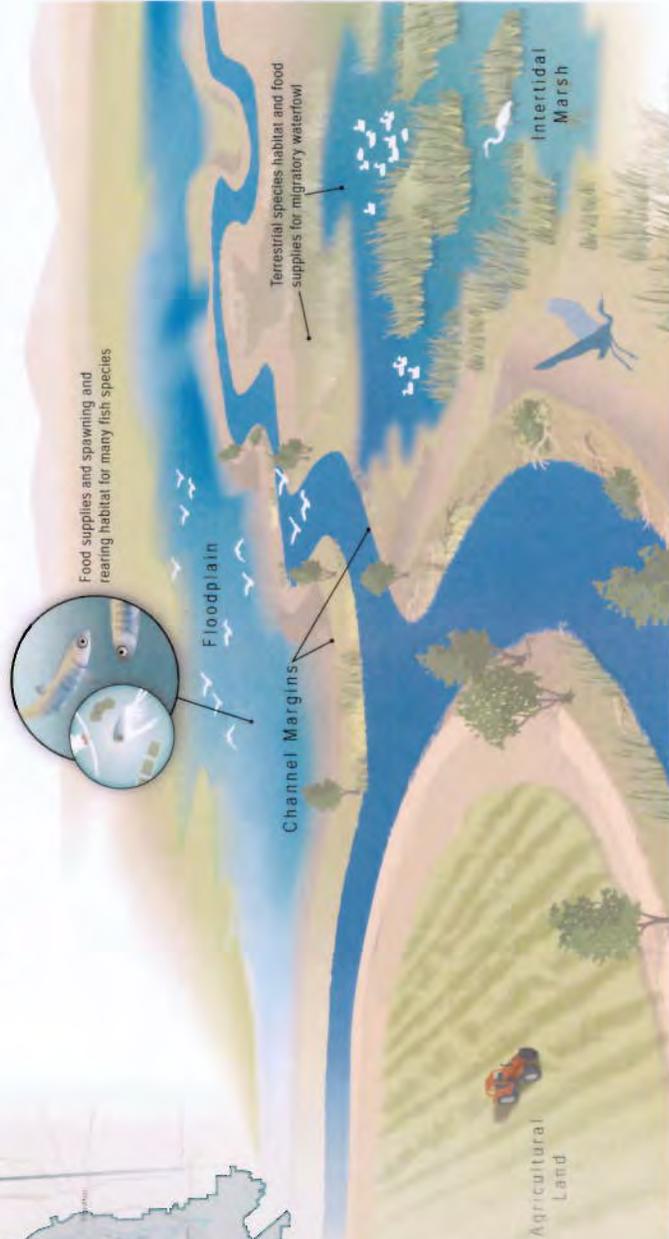
56 PROTECTED SPECIES

IMPROVED FLOW CONDITIONS TO BENEFIT FISH IN THE DELTA



- A part of California's water management portfolio
- A long term strategy to improve the reliability of California's water supplies and improve the ecosystem of the Sacramento-San Joaquin Delta
- A Habitat Conservation Plan

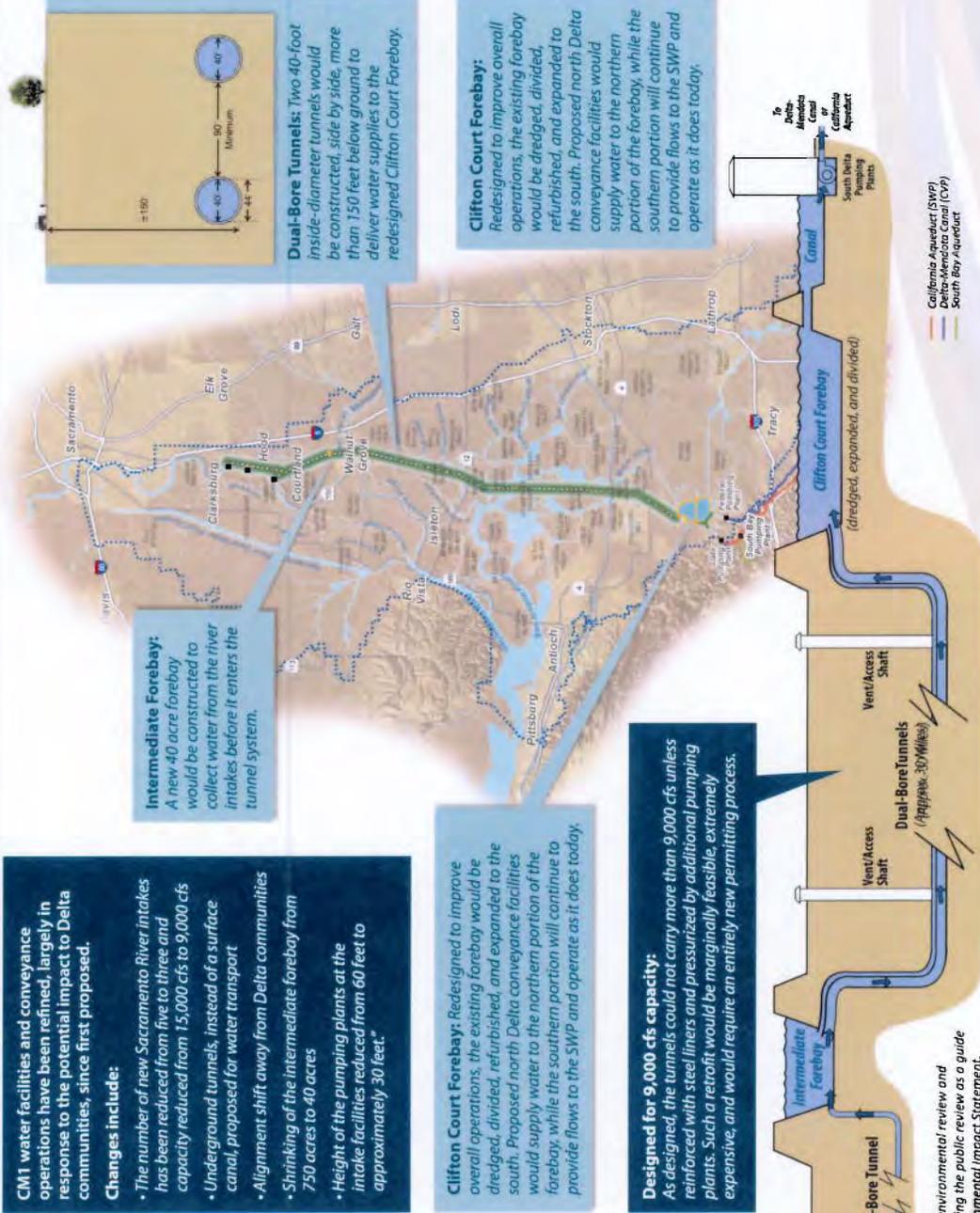
The BDCP provides a way to improve water supply reliability and ecosystem health.



BDCP Proposed Water Conveyance System (CM1)

CM1 Features:

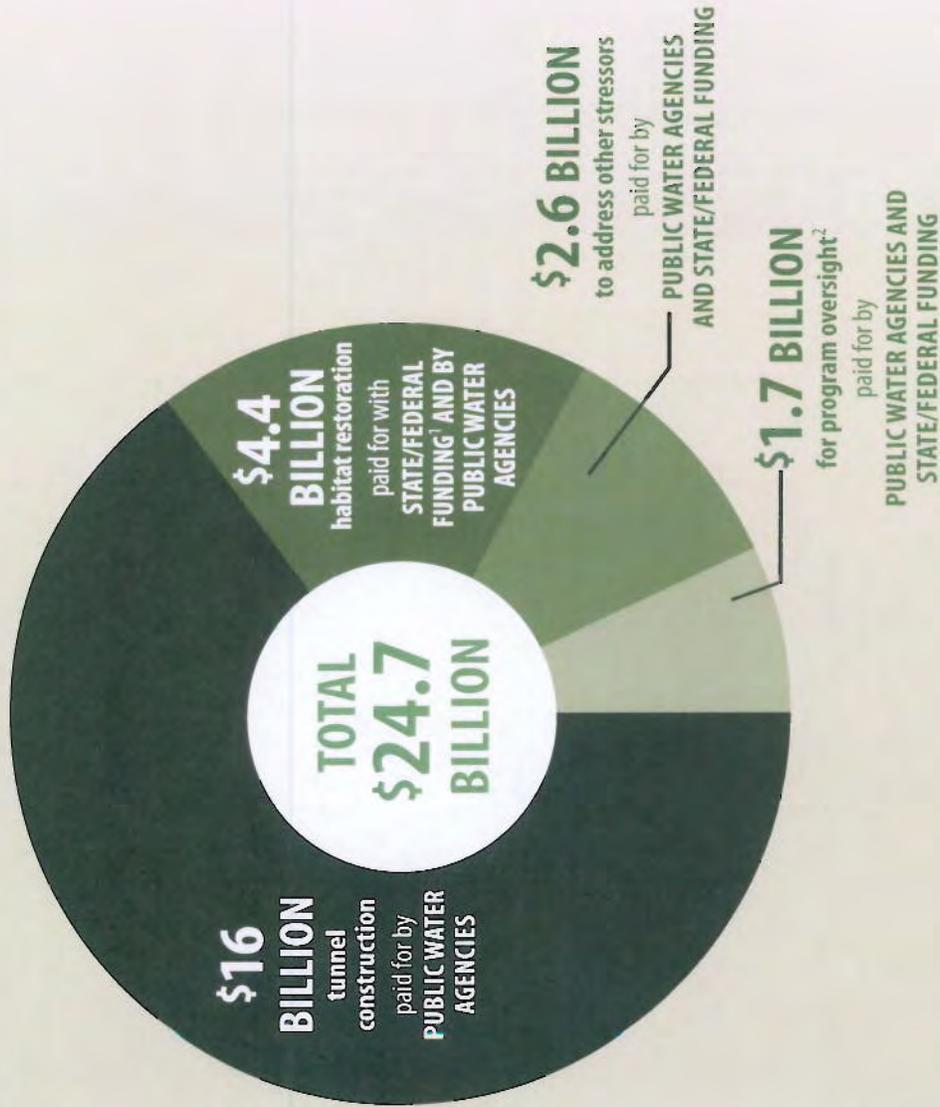
- Three intakes, together capable of diverting up to 9,000 cfs.
- State-of-the-art fish screens that would protect passing fish.
- A forebay for collection of the water diverted from the river.
- Two tunnels to carry water 30 miles to the existing pumping plants in the south Delta. From there, water would be moved into existing aqueducts that supply much of the state.



Proposed Tunnel System

No final decisions on the proposed conveyance facility have been made. Completion of environmental review and public input is now underway. The elements described here are for the purpose of assisting the public review as a guide to the BDCP and proposed project. Identified in the Environmental Impact Report/Environmental Impact Statement.

BDCP Cost and Funding



Estimated COSTS	
Capital	\$19.85 BILLION
Operations & Maintenance	\$4.9 BILLION
Total	\$24.75 BILLION

Estimated FUNDING	
Total	\$24.75 BILLION

¹The availability of federal funds will be contingent on future federal appropriations.

²Program oversight includes monitoring and research, adaptive management, management/administration, changed circumstances, and property tax revenue replacement.

BDCP Governance

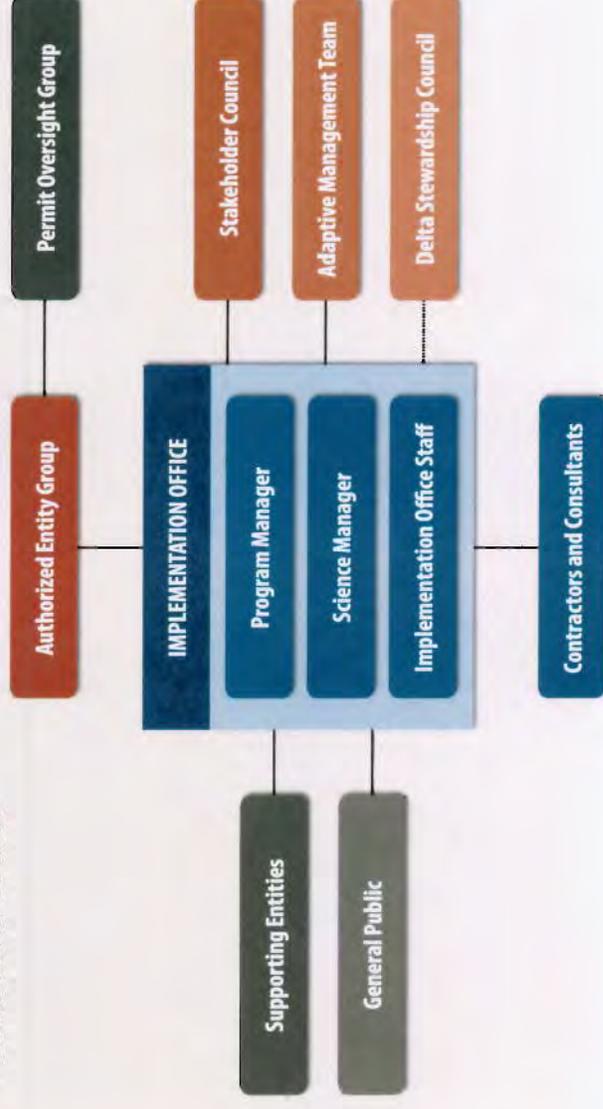
The proposed governance and implementation structure of the BDCP is envisioned as a collaborative effort with defined roles and responsibilities, and a clear process for addressing issues and conflicts as they arise.

The implementation structure is designed to ensure that:

- Sufficient institutional expertise, capacity, resources, and focus are brought to bear to accomplish the BDCP goals and objectives
- The entities receiving regulatory authorizations are accountable to those agencies granting the regulatory authorizations
- The decision-making process regarding BDCP implementation is transparent and understandable to the public

The implementation structure includes:

- Implementation Office
- Authorized Entity Group
- Permit Oversight Group
- Adaptive Management Team
- Stakeholder Council



BDCP Expected Outcomes (Effects Analysis)

Chapter 5, Effects Analysis, of the public Draft BDCP looks at the outcomes that are expected to result in the BDCP implementation.

The Effects Analysis:

- Evaluates the effects of the BDCP actions by comparing an environmental baseline condition to the conditions expected under BDCP
- Compares all conservation measures at various times during BDCP implementation
- Describes the level of take (harm or harassment of species) and the effect of that take from BDCP actions
- Considers climate impacts over the entire 50-year implementation period

Net Effects

The BDCP Effects Analysis evaluates the combined effects of all covered activities, including the conservation measures, to determine the net effect of implementing the Plan for:

- Ecosystems and landscapes
- Natural communities
- Covered plants and wildlife
- Covered fish

To calculate the net benefit of BDCP actions, the EA summarizes the positive and negative effects of the plan to determine the net effect to each covered species.

BENEFICIAL BDCP EFFECTS

+

ADVERSE BDCP EFFECTS

NET BDCP EFFECTS

For details regarding the positive and negative effects for each category, see Chapter 5, Effects Analysis, of the public Draft BDCP.

Scientific Uncertainty

Because the Delta is an ecologically complex estuary, there is a degree of scientific uncertainty. Where a high level of uncertainty is associated with the potential for a conservation measure to achieve plan objectives, that uncertainty will be addressed through research, monitoring, and the adaptive management program.

Anticipated Benefits to Habitat and Species Under Proposed BDCP



Expanding Sandhill Crane Habitat

The greater sandhill crane, one of the oldest living bird species, winters in California's Central Valley with one of the greatest concentrations in the central east Delta. The cranes roost in habitat consisting of wetlands or flooded agricultural fields.

In addition to the restoration identified in CM10, the BDCP includes a comprehensive strategy for contributing to the species' recovery. Construction and operation of conveyance facilities would be designed to avoid and minimize impacts to the crane. To ensure that the important crane population on Staten Island is unharmed by construction, the plan commits to a performance standard of no net loss of crane use days on Staten Island. This standard would be achieved through a number of avoidance and minimization measures.

Channel Margin

- Chinook Salmon
- Sacramento Splittail
- Central Valley Steelhead
- Pacific and River Lamprey
- Green Sturgeon
- White Sturgeon

Tidal Habitat

- Salt Marsh Harvest Mouse
- California Clapper Rail
- Delta Smelt
- Suisun Shrew
- California Black Rail
- White-tailed Kite
- Northern Harrier
- Short-eared Owl

Grassland

- San Joaquin Kit Fox
- Western Burrowing Owl
- California Tiger Salamander
- California Red-legged Frog
- Swainson's Hawk
- Northern Harrier
- White-tailed Kite
- Loggerhead Shrike
- Tricolored Blackbird
- Grasshopper Sparrow

Riparian

- Riparian Brush Rabbit
- Swainson's Hawk
- Valley Longhorn Elderberry Beetle
- Riparian Woodrat
- White-tailed Kite
- Cooper's Hawk
- Osprey
- Western Yellow-billed Cuckoo
- Least Bell's Vireo
- Yellow-breasted Chat
- Great Egret
- Great Blue Heron
- Snowy Egret
- Black-crowned Night Heron
- Western Pond Turtle



Channel Margin (20,000 Acres)

- Chinook Salmon
- Sacramento Splittail
- Central Valley Steelhead
- Pacific and River Lamprey
- Green Sturgeon
- White Sturgeon

Tidal Habitat (65,000 Acres)

- Salt Marsh Harvest Mouse
- California Clapper Rail
- Delta Smelt
- Suisun Shrew
- California Black Rail
- White-tailed Kite
- Northern Harrier
- Short-eared Owl

Grassland (10,000 Acres)

- San Joaquin Kit Fox
- Western Burrowing Owl
- California Tiger Salamander
- California Red-legged Frog
- Swainson's Hawk
- Northern Harrier
- White-tailed Kite
- Loggerhead Shrike
- Tricolored Blackbird
- Grasshopper Sparrow

Riparian Habitat (5,000 Acres)

- Riparian Brush Rabbit
- Swainson's Hawk
- Valley Longhorn Elderberry Beetle
- Riparian Woodrat
- White-tailed Kite
- Cooper's Hawk
- Osprey
- Western Yellow-billed Cuckoo
- Least Bell's Vireo
- Yellow-breasted Chat
- Great Egret
- Great Blue Heron
- Snowy Egret
- Black-crowned Night Heron
- Western Pond Turtle

New Floodplain (10,000 Acres)

- Central Valley Steelhead
- Chinook Salmon
- Sacramento Splittail
- Western Pond Turtle
- Pacific and River Lamprey
- Green Sturgeon
- White Sturgeon

Cultivated Lands (45,000 Acres)

- Greater Sandhill Crane
- Tricolored Blackbird
- Swainson's Hawk
- White-faced Ibis
- Great Egret
- Great Blue Heron
- Snowy Egret
- Northern Harrier

Managed Wetlands and Other Habitats (13,000 Acres)

- White-tailed Kite
- Vernal Pool Tadpole Shrimp
- Giant Garter Snake
- White-faced Ibis
- Northern Harrier

Other Habitats

- Loggerhead Shrike
- Vernal Pool Fairy Shrimp
- All the other fairy shrimp

Purpose of the Draft Environmental Impact Report/ Environmental Impact Statement (EIR/EIS)

Helps to fulfill the requirements of the:

▶ California Environmental Quality Act (CEQA)

- For CEQA compliance:
 - Describe the proposed project, identify its significant environmental impacts, and develop reasonable mitigation measures and alternatives to eliminate or reduce such impacts
 - May support future regulatory actions or approvals

▶ National Environmental Policy Act (NEPA)

- For NEPA compliance:
 - Describe a reasonable range of alternatives that meet project purpose and need, analyze environmental impacts of each alternative, and develop mitigation measures that would avoid or minimize adverse impacts or enhance the environment
 - May support future regulatory actions or approvals

Draft EIR/EIS Project Objectives and Purpose and Need

Chapter 2 of the Draft EIR/EIS describes the project's objectives, purpose and need as required by CEQA and NEPA.

Project Need

"The need for the action is derived from the multiple, and sometimes conflicting, challenges currently faced within the Delta. The Delta has long been an important resource for California, providing municipal, industrial, agricultural and recreational uses, fish and wildlife habitat, and water supply for large portion of the state. However, by several key criteria, the Delta is now widely perceived to be in crisis. There is an urgent need to improve the conditions for threatened and endangered fish species within the Delta. Improvements to the conveyance system are needed to respond to increased demands upon and risks to water supply reliability, water quality, and the aquatic ecosystem."

CEQA Project Objectives

"DWR's fundamental purpose in proposing the BDCP is to make physical and operational improvements to the State Water Project (SWP) system in the Delta necessary to restore and protect ecosystem health, water supplies of the SWP and Central Valley Project (CVP) south-of-Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations."



Draft EIR/EIS Project Objectives and Purpose and Need

Chapter 2 of the Draft EIR/EIS describes the project's objectives, purpose and need as required by CEQA and NEPA.

NEPA Purpose

1. Consider the applications for incidental take permits for the covered species that authorize take related to the actions listed below.
 - a. The operation of existing SWP Delta facilities.
 - b. The construction and operation of facilities and/or improvements for the movement of water entering the Delta from the Sacramento Valley watershed to the existing SWP and CVP pumping plants located in the southern Delta.
 - c. The implementation of any conservation actions that have the potential to result in take of species that are or may become listed under the ESA, pursuant to the ESA at section 10(a)(1)(B) and its implementing regulations and policies.
2. Improve the ecosystem of the Delta by implementing the actions listed below.
 - a. Providing for the conservation and management of covered species through actions within the BDCP Planning Area that will contribute to the recovery of the species.
 - b. Protecting, restoring, and enhancing certain aquatic, riparian, and associated terrestrial natural communities and ecosystems.
 - c. Reducing the adverse effects on certain listed species due to diverting water.
3. Restore and protect the ability of the SWP and CVP to deliver up to full contract amounts, when hydrologic conditions result in the availability of sufficient water, consistent with the requirements of state and federal law and the terms and conditions of water delivery contracts held by SWP contractors and certain members of San Luis Delta Mendota Water Authority, and other existing applicable agreements.



Chapter 8 – Water Quality

Chapter 8 – Water Quality

- ▶ Describes potential impacts on surface water quality
- ▶ The study area includes:
 - The Plan Area
 - Upstream of the Delta region
 - SWP/CVP Export Service Areas

Chapter 8 addresses two key questions:

- ▶ Would implementation of the BDCP or its alternatives result in effects on water quality in the study area?
- ▶ Would implementation of the BDCP or its alternatives result in changes to water quality that would have impacts to beneficial uses?

See public Draft EIR/EIS Chapter 8 for the impact analysis and conclusions.

You may also be interested in:

- Public Draft EIR/EIS Appendix 8A- Water Quality Criteria and Objectives
- Public Draft EIR/EIS Appendix 8B- Summary of Data Availability Used in Environmental Setting
- Public Draft EIR/EIS Appendix 8C - Screening Analysis
- Public Draft EIR/EIS Appendix 8H- Electrical Conductivity



Chapter 6 – Surface Water

Chapter 6 – Surface Water

- ▶ Examines the effects of implementing BDCP or its alternatives on surface waters in the Delta and upstream of the Delta
- ▶ The study area includes:
 - Sacramento hydrologic region
 - The Delta
 - Suisun Marsh

Chapter 6 analysis focuses on the following types of impacts:

- ▶ Changes in reverse flow conditions in Old River and Middle River
- ▶ Effects on flood management as a result of changes in water storage and flows

See public Draft EIR/EIS Chapter 6 for the impact analysis and conclusions.



Chapter 7 – Groundwater

Chapter 7 – Groundwater

- ▶ Examines the effects of implementing BDCP or its alternatives on groundwater resources
- ▶ The study area includes:
 - The Plan Area
 - Upstream of the Delta region
 - SWP and CVP export service areas

Chapter 7 analysis focuses on the following types of impacts:

- ▶ Depletion of groundwater supplies or interference with groundwater recharge
- ▶ Degradation of groundwater quality
- ▶ Interference with agricultural drainage

See public Draft EIR/EIS Chapter 7 for the impact analysis and conclusions.
You may also be interested in:

- Public Draft EIR/EIS Appendix 7A- Groundwater Model Documentation



Chapter 5 – Water Supply

Chapter 5 – Water Supply

- ▶ Describes the effects that implementing the BDCP or its alternatives would have on water supply conditions
- ▶ The study area includes:
 - The Plan Area
 - Upstream of the Delta region
 - SWP/CVP export service areas



Chapter 5 analysis focuses on the following types of impacts:

- ▶ Change in Delta outflow
- ▶ Change in SWP and CVP reservoir storage
- ▶ Change in Delta water exports
- ▶ Change in SWP and CVP deliveries

See public Draft EIR/EIS Chapter 5 for the impact analysis and conclusions.

You may also be interested in:

- Public Draft EIR/EIS Appendix 5A-Modeling Technical Appendix
- Public Draft EIR/EIS Appendix 5B - Responses to Reduced South of Delta Water Supplies
- Public Draft EIR/EIS Appendix 5D- Water Transfer Analysis Methodology and Results



Chapter 17 – Visual Resources and Chapter 23 – Noise

Chapter 17 – Aesthetics and Visual

- ▶ Examines the effects of implementing BDCP or its alternatives on visual resources.
- ▶ Study Area includes:
 - The Plan Area

Chapter 17 analysis focuses on the following types of visual impacts:

- ▶ Visual character
- ▶ Visual quality
- ▶ Viewer response, e.g. exposure, sensitivity, distance and duration of views

See public Draft EIR/EIS Chapter 17 for the impact analysis and conclusions.

You may also be interested in:

- Public Draft EIR/EIS Appendix 17D- Permanent Impacts after Construction is Complete

Chapter 23 – Noise

- ▶ Examines the potential impacts of noise and vibration resulting from construction and operation of the water conveyance facilities and restoration actions, specifically as they relate to regional city and county noise ordinances and restrictions for sensitive receptors
- ▶ Study Area includes:
 - The Plan Area

Chapter 23 analysis focuses on the following types of noise impacts:

- ▶ Annoyance, nuisance or dissatisfaction
- ▶ Interference with activities such as speech, sleep or learning
- ▶ Physiological effects such as startling and hearing loss

See public Draft EIR/EIS Chapter 23 for the impact analysis and conclusions.

Chapter 11 – Fish and Aquatic Resources

Chapter 11 – Fish and Aquatic Resources

Considers:

- ▶ The effects of implementing BDCP or its alternatives on fish and aquatic resources
- ▶ 11 covered fish species listed as endangered, threatened, or at risk of being listed as endangered or threatened during BDCP permit term
- ▶ 9 non-covered species, either special status species or of particular ecological, recreational, or commercial importance
- ▶ Study Area includes:
 - The Plan Area
 - Upstream of the Delta

Chapter 11 analysis considered the following categories of impact mechanisms:

- ▶ Construction and maintenance of water conveyance facilities associated with BDCP and its alternatives
- ▶ Water operations of water conveyance facilities associated with BDCP and its alternatives
- ▶ Construction and implementation of restoration measures associated with BDCP and its alternatives
- ▶ Construction and maintenance of other conservation measures associated with BDCP and its alternatives

See public Draft EIR/EIS Chapter 11 – *Fish and Aquatic Resources: Summary of Effects* for a summary of the impact analysis.



Chapter 12 – Terrestrial Biological Resources

Chapter 12 – Terrestrial Biological Resources

Considers:

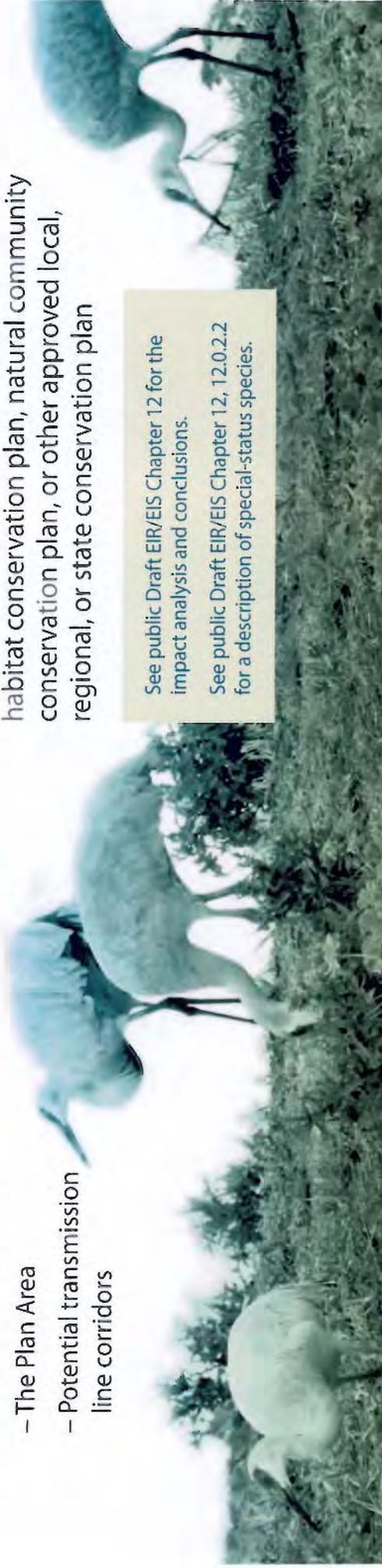
- ▶ 14 Natural Communities
- ▶ 149 special status wildlife and plant species
- ▶ Common wildlife species such as shorebirds and waterfowl
- ▶ Habitat corridors
- ▶ Wetlands and other waters
- ▶ Compatibility with local plans and policies
- ▶ Study Area includes:
 - The Plan Area
 - Potential transmission line corridors

Chapter 12 analysis focuses on the following types of impacts:

- ▶ Harm or harassment of individuals or populations of special-status species
- ▶ Removal or damage to habitat that supports special-status species
- ▶ Creation of barriers to the movement of special-status species
- ▶ Substantial conflicts with goals set in state or federally approved recovery plans for listed species
- ▶ Conflicts with provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state conservation plan

See public Draft EIR/EIS Chapter 12 for the impact analysis and conclusions.

See public Draft EIR/EIS Chapter 12, 12.0.2.2 for a description of special-status species.



Chapter 14 – Agricultural Resources

Chapter 14 – Agricultural Resources

- ▶ Describes the possible effects of implementing BDCP or its alternatives on the Delta’s agricultural region, including the temporary effects associated with construction of water conveyance facilities as well as permanent conversion of agricultural lands to nonagricultural uses in the Delta region (Cache Slough, Cosumnes/Mokelumne, Suisun Marsh, West Delta and South Delta Areas).
- ▶ Other topics related to agricultural resources are discussed in other chapters:
 - Chapter 5, Water Supply
 - Chapter 6, Surface Water
 - Chapter 7, Groundwater
 - Chapter 8, Water Quality
 - Chapter 9, Geology and Seismicity
 - Chapter 10, Soils
 - Chapter 12, Terrestrial Biological Resources
 - Chapter 16, Socioeconomics
 - Chapter 24, Hazards and Hazardous Materials
 - Chapter 25, Public Health
 - Chapter 28, Environmental Justice
 - Chapter 30, Growth Inducement

Estimated Conversion of Important Farmland to Nonagricultural Uses Associated with CM1

Alternative	Permanent Surface Impacts	Temporary and Short-Term Surface Impacts	Total	Percent of Total Important Farmland in Plan Area
Alternatives 1A and 6A	4,984	1,329	6,313	1.23%
Alternatives 1B and 6B	18,875	2,144	21,019	4.10%
Alternatives 1C and 6C	13,014	3,170	16,184	3.16%
Alternative 2Aa	4,992	1,826	6,818	1.33%
Alternative 2Ba	18,868	2,669	21,537	4.20%
Alternative 2C	13,019	3,170	16,189	3.16%
Alternative 3	4,838	953	5,791	1.13%
Alternative 4	4,975	1,315	6,290	1.23%
Alternative 5	4,770	833	5,603	1.09%
Alternatives 7 and 8	4,883	1,105	5,987	1.17%
Alternative 9	2,459	559	3,018	0.59%

See public Draft EIR/EIS Chapter 14 for the impact analysis and conclusions.

You may also be interested in:
- Public Draft EIR/EIS Appendix 14B - Delta Agricultural Stewardship Strategies

Chapter 15 – Recreation

Chapter 15 – Recreation

- ▶ Examines the effects of implementing BDCP or its alternatives on recreational experiences and facilities. Other chapters that discuss tourism and recreation are Chapter 16, *Socioeconomics*, Chapter 17, *Aesthetics and Visual Resources*, Chapter 20, *Public Services and Utilities*, and Chapter 23, *Noise*.

Chapter 15 analysis evaluated:

- ▶ Changes in upstream reservoir levels
- ▶ Access to Delta recreation sites
- ▶ Disruption of existing Delta recreation opportunities such as boating and fishing

See public Draft EIR/EIS Chapter 15 for the impact analysis and conclusions.



Chapter 16 – Socioeconomics

Chapter 16 – Socioeconomics

- ▶ Describes the socioeconomic conditions in the Delta and the potential effects of BDCP and its alternatives
- ▶ Looks at potential effects on:
 - Social and economic characteristics
 - Employment
 - Income at regional levels
 - Population and housing
 - Community character

Chapter 16 analysis considers the following categories of effects:

- ▶ Effects of construction, operation, and maintenance of conveyance facilities in the Plan Area and implementation of other conservation measures in the Plan Area
- ▶ Effects in hydrologic regions outside the Delta that could result from changes in water deliveries or transfers

See public Draft EIR/EIS Chapter 16 for the impact analysis and conclusions.
You may also be interested in:

- Public Draft EIR/EIS Appendix 16A Regional Economic Impacts of Water Conveyance Facility Construction



Other Resources Studied

The EIR/EIS analysis considers the following categories of effects:

- ▶ **Chapter 13 - Land Use**, describes existing and planned land uses in the Plan Area that could be affected by construction and operation of BDCP or its alternatives
- ▶ **Chapter 21 - Energy**, describes and evaluates the energy production and use associated with the existing SWP and CVP facilities, and the additional energy requirements needed for construction, and operation and maintenance of the BDCP and its alternatives
- ▶ **Chapter 24 - Hazards and Hazardous Materials**, addresses both naturally occurring and human-caused hazards in the Plan Area.
- ▶ **Chapter 25 - Public Health**, addresses potential impacts on human health including but not limited to drinking water quality, pathogens in recreational waters, and disease-carrying mosquitoes.



Air Quality and Greenhouse Gases, and Climate Change

Chapter 22 – Air Quality and Greenhouse Gases

- ▶ Examines the effects of implementing BDCP or its alternatives on air quality, focusing on criteria pollutants and greenhouse gas (GHG) emissions

Air Basins

- ▶ The study area includes three air basins: Sacramento Valley, San Joaquin Valley and the San Francisco Bay Area



The analysis focused on the following types of effects:

- Conflict with the applicable air quality plan
- Violation of any air quality standard
- Total direct emissions
- Exposure to sensitive receptors, e.g. schools or day cares
- Creation of objectionable odors

See public Draft EIR/EIS Chapter 22 for the impact analysis and conclusions.

You may also be interested in:

- Public Draft EIR/EIS Appendix 22D - DWR Climate Action Plan

Chapter 29 – Climate Change

- ▶ Addresses the question of how the BDCP and its alternatives would affect the resiliency and adaptability of the Plan Area to the effects of climate change.
 - ▶ Resiliency and adaptability mean the ability of the Plan Area to remain stable or flexibly change as the effects of climate change increase, in order to continue providing water supply of suitable water quality and to support ecosystem conditions that maintain or enhance aquatic and terrestrial plant and animal species.

Chapter 29 is different from other chapters, which identify the effects of actions within BDCP or its alternatives and how to mitigate the effects of those actions. Instead, Chapter 29 looks at how the BDCP or its alternatives perform under future projected conditions due to climate change such as sea-level rise, changes to hydrology, and increased air and water temperatures.

See public Draft EIR/EIS Chapter 29 for the impact analysis and conclusions.

Transportation, and Public Services and Utilities

Chapter 19 – Transportation

- ▶ Examines the transportation systems that serve the study area and the potential effects of BDCP or its alternatives implementation on roadway, marine, rail, and air transportation facilities
- ▶ Study area includes the Plan Area and some roadway segments outside the Plan Area that could be affected by construction activities

The analysis focused on the following types of effects:

- Substantial increases in traffic, delays or alteration of current circulation patterns
- Creation of traffic hazards or deterioration of roadways
- Interference with emergency management and evacuation routes
- Disruption of marine, air traffic, or transit service during construction or operations
- Interference with bicycle routes
- Conflicts with adopted policies, plans, or programs supporting alternative transportation (such as bicycles and transit services)

See public Draft EIR/EIS Chapter 19 for the impact analysis and conclusions.



Chapter 20 – Public Services and Utilities

- ▶ Describes the potential effects of implementing BDCP or its alternatives on public services such as law enforcement, fire protection and emergency services
- ▶ Describes the effects of implementing BDCP or its alternatives on utilities such as solid waste management, water treatment and electricity
- ▶ The study area includes the Plan Area

The analysis focused on the following types of effects:

- Need for new or altered public service facilities
- Disruption of existing utility services
- Need for new or expanded water or wastewater treatment facilities
- Need for new or expanded water supply resources
- Exceedance of solid waste management capacity
- Noncompliance with applicable statutes and regulations related to solid waste

See public Draft EIR/EIS Chapter 20 for the impact analysis and conclusions.



Geology and Seismicity, Soils, and Mineral Resources

Chapter 9 – Geology and Seismicity

- ▶ Describes the existing geologic and seismic conditions and associated potential geologic, seismic, and geotechnical hazards in the Plan Area

The types of effects evaluated include:

- Exposure of people or structures to potential substantial adverse effects including risk of loss, injury or death
- Areas that are unstable or could become unstable as a result of implementation of projects identified in BDCP and its alternatives, and result in on- or off-site landslides, subsidence, liquefaction, or collapse



See public Draft EIR/EIS Chapter 9 for the impact analysis and conclusions.

Chapter 10 – Soils

- ▶ Describes existing soil conditions that could be affected by implementation of the BDCP or its alternatives

The types of effects evaluated include:

- Accelerated soil erosion from water and wind
- Loss of topsoil caused by excavation, overcovering, and inundation
- Land subsidence due to biological oxidation of peat soils
- Effects of corrosive, expansive and compressible soils

See public Draft EIR/EIS Chapter 10 for the impact analysis and conclusions.

Chapter 26 – Mineral Resources

- ▶ Describes existing mineral resources that could be affected by construction, operation, and maintenance of the water conveyance facilities and restoration activities within BDCP and its alternatives

The types of effects evaluated include:

- Loss of known mineral resources of value to the region or the state
- Prevention of access to mineral resources
- Reduction of extraction potential from natural gas fields
- Reduced availability for aggregate resources and sites due to the volume used for construction



See public Draft EIR/EIS Chapter 26 for the impact analysis and conclusions.

Chapter 30 – Growth Inducement

- Addresses the **direct** and **indirect** growth inducement potential of implementing BDCP or its alternatives

Direct effects are caused by the action when the project is occurring, e.g. new jobs.

Direct growth was analyzed by comparing potential new jobs with existing labor force capacity to meet employment demand.



Indirect effects can occur at a later time but are reasonably foreseeable, e.g., land use changes, population density, or growth rate, and effects on air, water, and ecosystems.

Indirect growth was evaluated by projecting the potential of BDCP or its alternatives to stimulate housing development and increase need for public services.

- Potential for growth assessed for consistency with local land use plans
- Considered the relationship between water supply and urban population growth and whether growth would occur without increased water deliveries

Cultural and Paleontological Resources

Chapter 18 – Cultural Resources

- ▶ Assesses the potential effects of implementing BDCP or its alternatives on cultural resources, such as prehistoric and historic archaeological resources, architectural/built-environment resources, and places important to Native Americans and other ethnic groups
- ▶ The study area includes the Plan Area

The analysis focused on these effects:

- Ground-disturbing construction that would damage historic or pre-historic sites
- Direct demolition of resources such as historic-era residences or structures
- Direct excavation or alteration of traditional cultural properties
- Direct effects on individual resources, leading to adverse effects on rural historical landscapes
- Potential to alter, directly or indirectly, any of the characteristics of a property that qualifies for inclusion in the National Register of Historic Places

See public Draft EIR/EIS Chapter 18 for the impact analysis and conclusions.

Chapter 27 – Paleontological Resources

- ▶ Considers the potential effects on fossils or life history artifacts of prehistoric plants and animals
- ▶ Study area includes the Plan Area

The analysis considered if the alternatives would directly or indirectly destroy unique paleontological resources or sites.

See public Draft EIR/EIS Chapter 27 for the impact analysis and conclusions.

Chapter 28 – Environmental Justice

- ▶ Addresses the potential for implementation of BDCP or its alternatives to disproportionately affect minority and low-income populations
- ▶ Low-income and minority populations in the study area were identified using 2010 U.S. census data

More information on which low-income and minority populations have been identified in the study area is provided in Chapter 28, 28.2.1, Identification of Environmental Justice Populations in the Study Area.

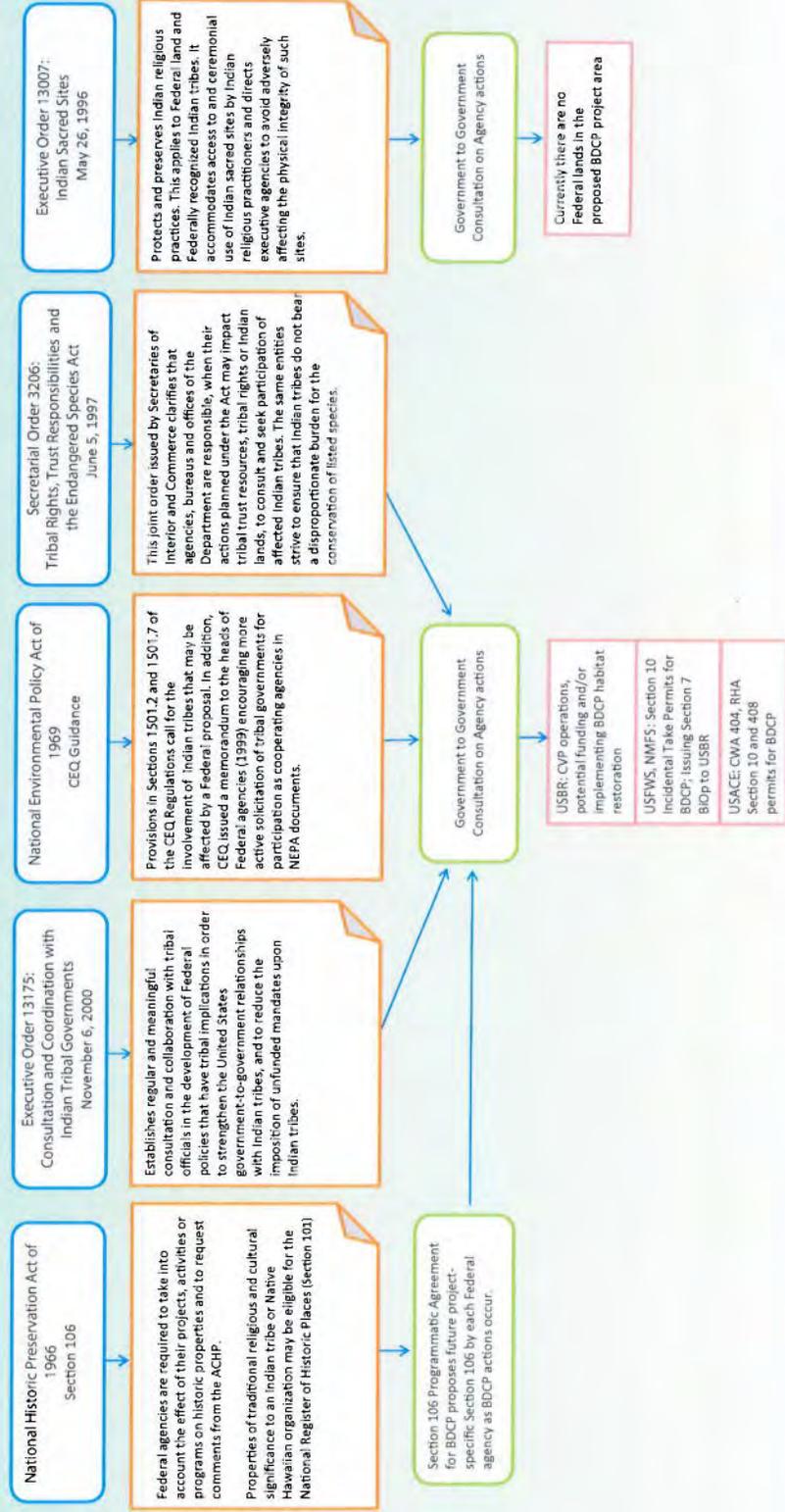
Chapter 28 analysis focused on the following types of impacts:

- ▶ Any impact on the natural or physical environment when the minority population is greater than 50% of the population or low-income individuals constitute 20% or more of the population
- ▶ Effects that appreciably exceed the adverse impacts on the general population
- ▶ Effects that would result in cumulative or multiple adverse exposures to environmental hazards appreciably exceeding the effects on the general population

See public Draft EIR/EIS Chapter 28 for the impact analysis and conclusions.



Federal Responsibilities for Consultation with Indian Tribes on the Bay Delta Conservation Plan (BDCP)*



*This flowchart summarizes federal policies, regulations, executive orders and guidance that require consultation with Indian tribes. It is not intended to be an exhaustive list of all federal laws, regulations, executive orders and guidance that require consultation with Indian tribes. For more information, please contact the BDCP Tribal Consultation Team (BDCP-Tribal-Consultation@fws.gov) or the BDCP Tribal Consultation Team (BDCP-Tribal-Consultation@acec.gov).