

CHAPTER 6

Summary of Impacts

6.1 Overview of the Environmental Effects of the Alternatives

For the Los Vaqueros Expansion project, four action alternatives and one No Project/No Action alternative were evaluated. Each of these alternatives is fully described in Chapter 3, Project Description. **Table 6-1** provides a summary of the major project components, for use in comparing the environmental effects of the alternatives.

**TABLE 6-1
RESERVOIR EXPANSION ALTERNATIVES
WITH KEY DISTINGUISHING CHARACTERISTICS**

Project Characteristic	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Expanded Reservoir Storage Capacity	275 TAF	275 TAF	275 TAF	160 TAF
Operational Emphasis	Environmental Water/Benefits & Water Supply Reliability	Environmental Water/Benefits	Environmental Water/Benefits	Water Supply Reliability
New South Bay Connection?	Yes, 470 cfs	Yes, 470 cfs	No	No
Intake Facilities	Construct new 170 cfs intake facility on Old River	Construct new 170 cfs intake facility on Old River	Expand existing CCWD intake facilities by 70 cfs	No changes to existing intake facilities
Pipeline Capacity from Intake to Expanded Reservoir	Expand pipeline capacity from 320 cfs to 670 cfs	Expand pipeline capacity from 320 cfs to 670 cfs	Expand pipeline capacity from 320 cfs to 570 cfs	No changes to pipeline capacity

Table 6-2 provides a summary comparison of the chief environmental effects of the four project alternatives and the No Project/No-Action Alternative. In the table, Alternative 1 is compared to the No Project / No Action alternative, while Alternatives 2, 3 and 4 are compared with Alternative 1.

**TABLE 6-2
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.2: Delta Hydrology and Water Quality					
Water supply delivery	No new facilities would be constructed, no existing facilities would be modified. No change in operations of the Los Vaqueros Reservoir system or the CVP or SWP in a way that would have a direct or indirect effect on water supply. Water supply reliability for CCWD and other Bay Area water agencies would not be improved and additional emergency storage for CCWD and other Bay Area water agencies would not be increased. No additional supplies for improved environmental water management would be provided, and no additional water would be diverted through positive-barrier fish screens.	No significant adverse changes in Delta inflow, Delta outflow, upstream flows, CVP or SWP deliveries, or CVP and SWP reservoir carry-over storage that would cause impacts to the water supply of other users under existing and future conditions. Small changes in total Delta diversions, largely in periods with surplus flows, resulting in a more reliable water supply for the South Bay agencies, and no changes in SWP and CVP water supply deliveries. It would not affect water supplies of other water users. Average Delta outflow changes would be less than significant in both magnitude and timing, decreasing by less than half of 1 percent difference from the Existing and Future Without Project conditions.	Same as Alternative 1.	Same as Alternative 1.	Same as Alternative 1.
Delta water quality	No new facilities would be constructed, no existing facilities would be modified. No change in operations of the Los Vaqueros Reservoir system or the CVP or SWP in a way that would have a direct or indirect effect on water quality	Alternative 1 operations would not result in adverse changes in water quality causing the violation of a water quality standard or result in changes to Delta water quality that would result in significant adverse effects on beneficial uses.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Delta water levels	No new facilities would be constructed, no existing facilities would be modified. No change in operations of the Los Vaqueros Reservoir system or the CVP or SWP in a way that would have a direct or indirect effect on water levels for other Delta water users.	Largest decrease in Delta water levels estimated at lower-low tide during irrigation season would be - 0.11 foot, which is less than 1.5 inches, and would occur infrequently (occurred once during irrigation season in modeled 16-year study period).	Same as Alternative 1	Largest decrease in water level estimated at lower-low tide during irrigation season would be 0.23 foot, which is less than 3 inches, and water level decreases greater than 0.1 foot would occur less than 1% of the time during irrigation season.	The largest decrease in water level changes estimated at lower-low tide during irrigation season would be 0.05 foot, and the estimated decrease in water level would not exceed 0.1 foot during irrigation season.

TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.2: Delta Hydrology and Water Quality (cont.)					
Cumulative effects on deliveries of water to other users, changes in Delta water quality, or change in Delta water levels.	No new facilities would be constructed, no existing facilities would be modified. No change in operations of the Los Vaqueros Reservoir system or the CVP or SWP in a way that would have cumulatively considerable effects on water supply, Delta water quality or Delta water levels in the context of combined past, present, and probable future projects.	Alternative 1 operations would not result in a cumulatively considerable contribution to significant adverse cumulative effects on deliveries of water to other users, changes in Delta water quality, or change in Delta water levels.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Section 4.3: Delta Fisheries and Aquatic Resources					
In-channel construction - effects on fish/aquatic resources.	No new facilities would be constructed, no existing facilities would be modified. No impact.	In-channel construction activities associated with the new Delta Intake structure would increase short-term localized suspended sediment, turbidity, and possibly contaminant concentrations within Old River, which would increase exposure of various life stages and species of fish to temporarily degraded water quality conditions.	Same as Alternative 1	Construction of a new Delta Intake on Old River not included. No Impact.	Construction of a new Delta Intake on Old River not included. No Impact.
Underwater sound-pressure - effects on fish/aquatic resources	No new facilities would be constructed, no existing facilities would be modified. No impact.	Underwater sound-pressure levels generated during cofferdam installation for the new Delta Intake could result in behavioral avoidance or migration delays for special-status fish species.	Same as Alternative 1	Construction of a new Delta Intake on Old River not included. No Impact.	Construction of a new Delta Intake on Old River not included. No Impact.
Dewatering of cofferdam - effects on fish	No new facilities would be constructed, no existing facilities would be modified. No impact.	Dewatering of the cofferdam for the new Delta Intake could result in localized, short-term stranding of fish.	Same as Alternative 1	Construction of a new Delta Intake on Old River not included. No Impact.	Construction of a new Delta Intake on Old River not included. No Impact.

**TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.3: Delta Fisheries and Aquatic Resources (cont.)					
Loss of aquatic habitat	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction of new Delta Intake and Pump Station along Old River would result in loss of .2 acre (approximately 50 linear feet by 180 feet depth) of riprapped levee shoreline and install up to 0.79 acres of riprap.	Same as Alternative 1	Construction of a new Delta Intake on Old River not included. No Impact.	Construction of a new Delta Intake on Old River not included. No Impact.
Hydraulic conditions - changes due to new Delta intake structure and effects on fish	No new facilities would be constructed, no existing facilities would be modified. No impact.	Incremental changes in localized hydraulics and aquatic habitat characteristics at the new Delta Intake structure, including disorientation of fish and predator attraction, would be minor.	Same as Alternative 1	Construction of a new Delta Intake on Old River not included. No Impact.	Construction of a new Delta Intake on Old River not included. No Impact.
Delta fish populations and aquatic habitat	No new facilities would be constructed, no existing facilities would be modified. No impact.	Water diversion operations would not result in significant adverse changes in Delta hydrologic conditions that affect Delta fish populations or quality and quantity of aquatic habitat within the Sacramento-San Joaquin River system, including the Delta.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Operation of screened Delta intakes - increased entrainment	No new facilities would be constructed, no existing facilities would be modified. No impact.	Fishery benefit largely due to shift of a portion of South Bay water agencies' Delta diversions to the expanded Los Vaqueros system, which provides improved fish screening relative to the SWP and CVP export facilities.	Same as Alternative 1	Significant increase in entrainment losses compared to without project conditions using the entrainment index method, which is based on the fish monitoring data near Delta water intakes. This substantial effect is caused by the operating rules evaluated for these facilities.	Alternative 4 generally provides no change or slight reductions in estimated potential entrainment.
Cumulative effects on Delta fisheries and aquatic resources	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Alternative 1 when combined with other planned projects or projects under construction in the area, could cumulatively contribute to substantial adverse impacts to Delta fisheries and aquatic resources.	Same as Alternative 1	Cumulative entrainment impacts of Alternative 3 would be significant and unavoidable	Alternative 4 would not contribute to cumulative adverse impacts on Delta fisheries.

TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.4: Geology, Soils and Seismicity					
Seismic hazards - ground shaking, liquefaction, and local slope stability	No new facilities would be constructed, no existing facilities would be modified. No impact.	All proposed facilities would be designed and engineered in accordance with seismic code requirements; therefore project would not expose people or structures to increased risk of loss, injury, or death involving strong seismic ground shaking or seismic-related ground failure, including liquefaction and landslides.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Soil erosion and loss of topsoil	No new facilities would be constructed, no existing facilities would be modified. No impact.	During construction the proposed project could result in substantial soil erosion or the loss of topsoil.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Unstable soils including expansive soils	No new facilities would be constructed, no existing facilities would be modified. No impact.	Unstable soils exist at the proposed new Delta Intake and Pump Station site; a pier foundation would be installed to support this facility, avoiding risks posed by the soils. No other significant areas of soil instability have been identified but a site-specific geotechnical investigation would be conducted for all major facilities and recommendations implemented to minimize or eliminate soil stability constraints and risks.	Same as Alternative 1	Same as Alternative 1	Fewer facilities, particularly no new Delta Intake and Pump Station, would result in less impact than Alternative 1.
Cumulative effects related to geology, soils or seismicity	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Construction would not make a cumulatively considerable contribution to cumulative effects associated with erosion, topsoil loss or increased exposure to seismic or other geohazard risks.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

**TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.5: Local Hydrology, Drainage and Water Quality					
Water quality	No new facilities would be constructed, no existing facilities would be modified. No impact.	Potential for increased erosion and sedimentation to local waterways, release of fuels or other hazardous materials during construction, or dewatering of excavated areas that could result in substantial water quality degradation.	Same as Alternative 1	Similar types of impact but less extent of impact than Alternative 1 due to construction of fewer facilities.	Similar types of impact but much less extent of impact than Alternative 1 due to construction of the fewest facilities of all the alternatives.
Local groundwater supplies and groundwater recharge	No new facilities would be constructed, no existing facilities would be modified. No impact.	Dewatering of construction area would result in localized and temporary changes in groundwater levels near the active dewatering sites but would not deplete local groundwater supplies. Facility sites would interfere with groundwater recharge to an insignificant extent.	Same as Alternative 1	Same as Alternative 1	Similar types of impact but much less extent of impact than Alternative 1 due to construction of the fewest facilities of all the alternatives.
Drainage patterns	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would not substantially alter drainage patterns but reservoir expansion would increase the reservoir shoreline area subject to erosion.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Runoff water	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems but would increase potential stormwater pollution runoff. Project would not provide substantial additional sources of polluted runoff during operation.	Same as Alternative 1	Similar type of impact but less extent of impact than Alternative 1 due to construction of fewer facilities.	Similar type of impact but less extent of impact than Alternative 1 due to construction of fewer facilities.
Flood hazard	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction could place structures within a 100-year flood hazard area as mapped on a federal Flood Insurance Rate Map but project facilities would not appreciably impede or redirect flood flows.	Same as Alternative 1	Same as Alternative 1	Alternative 4 would not place structures within a 100-year flood hazard area.

TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.5: Local Hydrology, Drainage and Water Quality (cont.)					
Risk of inundation from dam or levee failure	No new facilities would be constructed, no existing facilities would be modified. No impact.	Reservoir expansion and construction of new Delta Intake and Pump Station along Old River would not increase the risk inundation by dam or levee failure.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Cumulative effects related to drainage, flooding, groundwater recharge or water quality degradation in the project area	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Construction and operation of Alternative 1 would not make a cumulatively considerable contribution to cumulative effects on drainage, flooding, groundwater recharge or water quality degradation in the project area.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Section 4.6: Biological Resources					
NCCP habitat types / CDFG sensitive plant communities	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would affect the following NCCP habitat types (CDFG sensitive plant communities in parentheses): Natural Seasonal Wetland (i.e., bulrush-cattail series, northern claypan vernal pool, bush seepweed, and saltgrass series), Valley/Foothill Riparian (i.e., Fremont cottonwood series and valley oak series), Grassland (i.e., purple needlegrass series) and Valley/Foothill Woodland Forest (i.e., blue oak series).	Same as Alternative 1	Same as Alternative 1	Would result in permanent losses to the same sensitive plant communities as Alternative 1 (except for no effects to Northern claypan vernal pool habitat) but to a reduced extent.
Jurisdictional wetlands, waters of the U.S. or the State, and streambeds and banks	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction could permanently affect up to 6.3 acres jurisdictional wetlands, waters of the U.S. or the State, or streambeds and banks and temporarily affect 26.79 acres. Total impact is 32.96 acres.	Same as Alternative 1	Same as Alternative 1 except 5.98 acres affected permanently and 3.76 temporarily. Total impact is 9.74 acres.	Same as Alternative 1 except 3.65 acres affected permanently and 0.04 temporarily. Total impact is 3.69 acres.
Special-status plant species	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction could affect populations of special-status plant species including brittlescale, San Joaquin spearscale, Brewer's dwarf-flax, and rose-mallow.	Same as Alternative 1	Construction could affect Brewer's dwarf-flax.	No impact.

**TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.6: Biological Resources (cont.)					
California red-legged frog and California tiger salamander habitat	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would result in impacts on California red-legged frog and California tiger salamander, including aquatic breeding habitat (11 ponds permanently and 5 temporarily) and upland aestivation habitat (1,126 acres permanently and 233 acres temporarily) for these species.	Same as Alternative 1	Slightly less than Alternative 1, affecting 150.9 acres less of upland breeding habitat.	Less than Alternative 1, affecting 7 ponds permanently and 5 temporarily of aquatic breeding habitat and 523 acres of upland aestivation habitat for these species.
Western pond turtle populations	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would result in direct and indirect impacts on existing populations of and habitat for western pond turtle.	Same as Alternative 1	Same as Alternative 1, but to a lesser extent because Transfer-Bethany Pipeline would not be constructed.	Same as Alternative 1, though to a lesser extent because of smaller reservoir and fewer facilities.
Vernal pool species and habitat	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would result in direct and indirect impacts on 16 ponds containing listed vernal pool branchiopods and their habitat, and on the non-listed midvalley fairy shrimp and curved-foot hygrotus diving beetle.	Same as Alternative 1	Less than Alternative 1 because Transfer-Bethany Pipeline would not be constructed, therefore only 1 vernal pool would be affected.	Unlike Alternative 1, there would be no impact upon vernal pool species or habitat because Alternative 4 facilities would not be located near vernal pools.
San Joaquin kit fox habitat and regional movement	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would have temporary and permanent impacts on potential San Joaquin kit fox habitat (approximately 1,500 acres) and permanently reduce potential regional movement opportunities on western side of reservoir.	Same as Alternative 1	Direct kit fox habitat impacts under Alternative 3 would be somewhat less than under Alternative 1 due to the exclusion of the Transfer-Bethany Pipeline.	Direct kit fox habitat impacts under Alternative 4 would be less than under Alternative 1 (819 acres) due to the exclusion of pipeline construction and the smaller reservoir; however Alternative 4 would, like Alternative 1, permanently reduce potential regional movement opportunities on western side of Los Vaqueros Reservoir.
Burrowing owl habitat	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would result in temporary and permanent loss of habitat for burrowing owl, affecting 233 acres temporarily and 1,126 acres permanently.	Same as Alternative 1	Same as Alternative 1, but affecting 150.9 fewer acres temporarily.	Less than under Alternative 1 due to the exclusion of pipeline construction and smaller reservoir; affecting 19.2 acres temporarily and 522.8 acres permanently.

TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.6 Biological Resources (cont.)					
Golden eagle, bald eagle, and Swainson's hawk species and habitat	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction and operation activities would result in direct and indirect impacts on existing populations of and habitat for golden eagle, bald eagle, and Swainson's hawk.	Same as Alternative 1	Same as Alternative 1, but 150.9 fewer acres affected because of exclusion of Transfer-Bethany Pipeline.	Same as Alternative 1, though to a lesser extent because no facilities constructed outside watershed.
			B (bald eagle)	B (bald eagle)	B (bald eagle)
Alameda whipsnake habitat	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction and increased reservoir water levels would result in temporary and permanent loss of potential and occupied habitat for Alameda whipsnake. 6.9 acres permanently impacted and 0.5 acres temporarily impacted.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1, except that 6.4 acres permanently impacted and 0.4 acres temporarily impacted,
Valley elderberry longhorn beetle species and habitat	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction activities could result in direct and indirect impacts on valley elderberry longhorn beetle and its habitat, affecting 45 elderberry shrubs.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1, though lesser inundation area would affect 29 fewer elderberry shrubs.
Breeding bird nest sites and migratory birds	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction activities could affect active breeding bird nest sites and new powerlines could affect migratory birds	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Critical habitat for listed species (vernal pool fairy shrimp and Contra Costa goldfields)	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction activities could affect designated critical habitat for listed species (vernal pool fairy shrimp and Contra Costa goldfields). 145.4 acres of vernal pool fairy shrimp habitat could be affected, and 98.1 acres of Contra Costa goldfields habitat.	Same as Alternative 1	Unlike Alternative 1, Alternative 3 would have no impact to designated critical habitat for vernal pool species because it does not include the Transfer-Bethany Pipeline.	Unlike Alternative 1, Alternative 4 would have no impact to designated critical habitat for vernal pool species because it does not include the Transfer-Bethany Pipeline.
Local and regional conservation plans and ordinances protecting biological resources	No new facilities would be constructed, no existing facilities would be modified. No impact.	Project would not result in inconsistency with local and regional conservation plans, or local plans or ordinances protecting biological resources.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

**TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.6: Biological Resources (cont.)					
Special-status reptile species (San Joaquin coachwhip and coast horned lizard)	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction activities could affect nonlisted special-status reptile species (San Joaquin coachwhip and coast horned lizard). 943.6 acres to be affected permanently and 252.6 acres affected temporarily.	Same as Alternative 1	Same as Alternative 1, though 150.9 less acres temporarily affected because it does not include Transfer-Bethany Pipeline.	Same as Alternative 1, except 348.3 acres affected permanently and no temporary impacts because no facilities outside watershed to be constructed.
Special-status mammal species (American badger, special-status bats, and San Joaquin pocket mouse)	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction activities could affect nonlisted special-status mammal species (American badger, special-status bats, and San Joaquin pocket mouse). 943.6 acres to be affected permanently and 252.6 acres affected temporarily.	Same as Alternative 1	Same as Alternative 1, though 150.9 less acres temporarily affected because it does not include Transfer-Bethany Pipeline.	Same as Alternative 1, except 348.3 acres affected permanently and no temporary impacts because no facilities outside watershed to be constructed.
Pacific Flyway species (waterfowl and shorebirds)	No new facilities would be constructed, no existing facilities would be modified. No impact.	Draining the reservoir during project construction could affect Pacific Flyway species, including waterfowl and shorebirds.	Same as Alternative 1	Same as Alternative 1	Unlike Alternative 1, the reservoir would not be fully drained during construction; Alternative 4 impacts to Pacific Flyway species would be less than Alternative 1 effects.
Cumulative effects on special-status species and habitats	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Project construction would not make a cumulatively considerable contribution to cumulative effects on special-status species and habitats.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Section 4.7: Land Use					
Divide existing communities of Byron or Discovery Bay	No new facilities would be constructed, no existing facilities would be modified. No impact.	Facilities would not divide established communities.	Same as Alternative 1	Same as Alternative 1	No construction within any established community.
Conflict with any applicable land use plans	No new facilities would be constructed, no existing facilities would be modified. No impact.	Facilities would be located within the CCWD Watershed, on or adjacent to existing water system facility sites or in rural/agricultural areas. Facility siting in these locations would not conflict with applicable land use plans.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.7: Land Use (cont.)					
Conflict with aviation safety policies	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction activities within designated Airport Land Use Compatibility Zones near the Byron Airport could conflict with aviation safety policies such as height restrictions or nighttime lighting.	Same as Alternative 1	Same as Alternative 1	No construction within Airport Land Use Compatibility Zones near Byron Airport.
Create flight hazards at local airport	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction activities within the Airport Influence Area for Byron Airport could cause potential temporary flight hazards through: the creation of glare or distracting lights; the generation of dust or smoke, which could impair pilot visibility; or could attract an increased number of birds.	Same as Alternative 1	Same as Alternative 1	No construction within designated Airport Land Use Compatibility Zones near Byron Airport, but other construction could attract avian wildlife and create flight-related hazards.
Cumulative effects related to conflicts with land use plans and policies or dividing an existing community	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	No conflicts with any applicable land use plan or policy adopted for the purpose of reducing or avoiding environmental impacts.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Section 4.8: Agriculture					
Temporary affect Important Farmland	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction could temporarily affect about 171 acres of Important Farmlands. This would represent less than 0.4 percent of the 41,619 acres of Important Farmlands in Contra Costa County. No Important Farmlands are within the project area in Alameda County.	Same as Alternative 1	Alternative 3 would temporarily affect up to 149 acres of Important Farmland, compared to 171 acres for Alternative 1. This represents about 0.3 percent of Important Farmlands in Contra Costa County.	Unlike Alternative 1, Alternative 4 would not temporarily affect any Important Farmlands.
Permanently convert Important Farmland	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction of a new Delta Intake and Pump Station would result in permanent conversion of about 22 acres of Important Farmland and could result in additional long-term loss of Important Farmland if protective measures are not taken during construction.	Same as Alternative 1	Unlike Alternative 1, no permanent conversion of Important Farmland would result from Alternative 3 since there would be no construction of a new Delta Intake and Pump Station; however, Alternative 3 could result in long-term loss of Important Farmland if protective measures are not taken during construction.	Unlike Alternative 1, Alternative 4 would not result in permanent conversion any Important Farmlands since there would be no construction of a new Delta Intake and Pump Station.

**TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.8: Agriculture (cont.)					
The project would not conflict with zoning for agricultural use or a Williamson Act contract.	No new facilities would be constructed, and no changes in CCWD facilities or operations would conflict with zoning for agricultural use or a Williamson Act contract.	Under Alternative 1, up to nine properties with Williamson Act contracts would be temporarily affected by construction of pipelines because these facilities would require acquisition of temporary construction easements, and in the case of the Transfer-Bethany Pipeline, a temporary construction plus a permanent utility easement.	Same as Alternative 1	Under Alternative 3, up to four properties under Williamson Act contracts would be affected by construction of the Delta-Transfer Pipeline, the Transfer-LV Pipeline, and Power Option 1, which is less contracted land would be affected than under Alternative 1.	Unlike Alternative 1, under Alternative 4 there would be no land under Williamson Act Contracts affected by the project.
Cumulative temporary effects upon agricultural land and long-term conversion of Important Farmlands to non-agricultural uses	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	The incremental contribution of farmland conversion associated with Alternative 1 would be a cumulatively considerable contribution to an existing significant cumulative impact.	Same as Alternative 1	Unlike Alternative 1, no incremental contribution of farmland conversion would result from Alternative 3; however, Alternative 3 could result in long-term effects upon Important Farmland if protective measures not taken during construction.	Alternative 4 would not contribute to cumulative adverse impacts related to agriculture.
Section 4.9: Transportation and Circulation					
Traffic congestion during construction	No new facilities would be constructed, no existing facilities would be modified. No impact.	Project construction activities would intermittently and temporarily increase traffic congestion due to vehicle trips generated by construction workers and construction vehicles on area roadways.	Same as Alternative 1	Similar to but less than Alternative 1	Much less than Alternative 1
Access and emergency services disruption and creation of traffic safety hazards during construction	No new facilities would be constructed, no existing facilities would be modified. No impact.	Project construction activities would intermittently and temporarily impede access to local streets or adjacent uses, including access for emergency vehicles and could substantially increase traffic hazards due to construction in or adjacent to roads or possible road wear.	Same as Alternative 1	Similar to Alternative 1	No impact.

TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.9 :Transportation and Circulation (cont.)					
Traffic safety hazards during construction	No new facilities would be constructed, no existing facilities would be modified. No impact.	Project construction activities would intermittently and temporarily increase potential traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways due to increased traffic volumes.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Cumulative transportation and circulation effects	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Project construction, when combined with construction of other future projects, could contribute to construction-related short-term cumulative impacts to traffic and transportation (traffic congestion, access disruption, and traffic safety).	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Section 4.10: Air Quality					
Criteria air pollutant emissions / Federal general conformity	No facilities would be constructed and no impacts associated with criteria air pollutants would result.	Construction would generate short-term emissions of criteria air pollutants: ROG, NOx, CO, and PM10 that could potentially contribute to existing nonattainment conditions and further degrade air quality. However, this alternative would not exceed federal general conformity <i>de minimis</i> standards for emissions.	Same as Alternative 1	Same as Alternative 1, though emissions would be less intense because Transfer-Bethany Pipeline and new Delta Intake and Pump Station would not be constructed.	Same as Alternative 1, though emissions would be less intense because no facilities outside watershed would be constructed.
Violation of applicable air quality standards	No facilities would be constructed and no violation of applicable air quality standards would result.	Operation would not result in emissions of criteria air pollutants at levels that would substantially contribute to a potential violation of applicable air quality standards or to nonattainment conditions.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Expose sensitive receptors to substantial pollutant concentrations	No facilities would be constructed and no impacts associated with substantial pollutant concentrations would result.	Construction and/or operation would not expose sensitive receptors to substantial pollutant concentrations.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

**TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.10: Air Quality (cont.)					
Objectionable odors	No facilities would be constructed and no impacts associated with objectionable odors would result.	Operation would not create objectionable odors affecting a substantial number of people.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Cumulative greenhouse gas emissions	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction and operation would not make a cumulatively considerable contribution to greenhouse gas emissions. CCWD would continue to implement actions to reduce GHG emissions of its overall water system enterprise.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Cumulative air quality effects	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Construction could result in cumulatively considerable increases of criteria pollutant emissions. Operation would not make a cumulatively considerable contribution to regional air quality impacts.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Section 4.11: Noise					
Exceed local noise standards during construction	No new facilities would be constructed, no existing facilities would be modified. No impact.	Facilities construction would generate noise levels that exceed noise thresholds at nearby sensitive receptors if construction activities are carried out during noise-sensitive hours.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Exceed local noise standards during operation	No new facilities would be constructed, no existing facilities would be modified. No impact.	Project operations would generate traffic, stationary source, and area source noise similar to existing noise associated with operation of Los Vaqueros Reservoir system and would not exceed County noise requirements.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Ground-borne vibration or noise.	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would not expose persons to or generate excessive ground-borne vibration or ground-borne noise levels.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.11: Noise (cont.)					
Cumulative effects of construction and operation noise and vibration	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative noise or vibration impacts.	No cumulatively considerable contribution to operational noise levels or ground-borne vibration. Potential for cumulative noise impacts if construction overlaps with other projects in the vicinity (i.e., Cecchini Ranch, Brentwood Solid Waste Transfer Facility Expansion and/or various road safety improvements).	Same as Alternative 1	Same as Alternative 1	No cumulative noise effects.
Section 4.12: Utilities and Public Service Systems					
Disrupt utility services / public health hazard	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction could temporarily disrupt utility services during construction such that a public health hazard could be created or an extended service disruption could result.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Require or result in new or expanded utility infrastructure or public service facilities that result in substantial adverse physical impacts	No new facilities would be required, no existing facilities would be modified. No impact.	Alternative 1 would not require or result in construction of new or expanded utility infrastructure or public service facilities that would result in substantial adverse physical impacts.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Solid waste generation / exceed the capacity of local landfills.	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction activities would generate solid waste for disposal but this would not exceed the capacity of local landfills.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Cumulative effects upon public services and utilities, or local landfill capacity	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative utility or public service impacts.	Construction could result in cumulatively considerable contributions to cumulative effects on public services and utilities, and local landfill capacity.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

**TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.13: Hazardous Materials / Public Health					
Health risks during construction	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction not create significant health risks due to exposure to subsurface soils and groundwater during construction.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Accidental release of hazardous materials during construction or operation	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction or operation could, through routine transport, use or disposal, accidentally release hazardous materials thereby exposing construction workers, project personnel and the public to hazardous materials or accidentally releasing hazardous materials into the soil, groundwater, and/or a nearby surface water body.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Wildland fires	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction could result in improper handling or use of flammable or combustible materials such as internal combustion equipment could result in wildland fires, exposing people or structures to a significant risk of loss, injury, or death.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Electric and magnetic fields (EMF)	No new facilities would be constructed; no effects on public health or safety related to EMF.	Construction project power supply facilities would not locate electrical transmission facilities within 150 feet of a school and there would be no EMF effects.	Same as Alternative 1, impacts under Alternative 2 would be Less than Significant	Same as Alternative 1, impacts under Alternative 3 would be Less than Significant	Unlike Alternative 1, there would be no effects under Alternative 4
Cumulative effects associated with hazardous materials, public health, accidental hazardous material spills, wildland fires or EMF	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Construction or operation would not cause cumulatively considerable contributions to any significant cumulative effect related to hazardous materials or public health, accidental hazardous material spills, wildland fires or exposure to EMF.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.14: Visual/Aesthetic Resources					
Negative aesthetic effect on a scenic vista.	No new facilities would be constructed, no existing facilities would be modified. No impact.	Would not have a substantial, demonstrable negative aesthetic effect on a scenic vista.	Same as Alternative 1	Under Alternative 3, construction activities and facility siting impacts would be less than Alternative 1.	Alternative 4 impacts would be less than Alternative 1 due to a smaller reservoir expansion (160 TAF only) and fewer project components.
Degrade the existing visual character or quality	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction activities and facility siting would result in a weak visual contrast and would not dominate nor obstruct the views of the public or recreational users; therefore, Alternative 1 would not substantially degrade the existing visual character or quality of the site and its surroundings.	Same as Alternative 1	Under Alternative 3, construction activities and facility siting impacts would be less than Alternative 1.	Unlike Alternative 1, Alternative 4 impacts associated with the 160 TAF Borrow Area would substantially degrade the existing visual character and quality of the site and its surroundings
New source of light or glare	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction and operations would not result in creation of a new source of substantial light or glare that would be visible to the public or recreational users. However, a conductor within an area where no transmission lines currently exist could result in a noticeable visual change during the daytime. Therefore, operation of Power Option 1 could result in a new source of substantial glare that would be visible to the public from SR 4.	Same as Alternative 1	Construction and operational impacts would be less than Alternative 1, though Alternative 3 includes the conductor and therefore could result in a new source of substantial glare.	Unlike Alternative 1, Alternative 4 would not result in creation of a new source of substantial light or glare that would be visible to the public or recreational users
Cumulative effects upon scenic vistas, visual character or quality, or new sources of light or glare	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	No cumulatively considerable contribution to adverse effects on visual/aesthetic resources in the project area or broader region.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

**TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.15: Recreation					
Loss of recreation areas	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would require closure of Los Vaqueros Watershed to the public during the 3-year construction period and additional 2-year restriction for water-related activities causing short-term loss of recreation areas and activities provided in the watershed (fishing boating, hiking, picnicking, interpretive center). Following construction, CCWD Watershed would reopen to the public with similar but expanded recreational facilities and use areas. There would be no long-term adverse effects on recreation; there would be long-term benefits.	Same as Alternative 1	Same as Alternative 1	Alternative 4 construction would be of shorter duration (2 years) with no additional time restriction for water-related activities. Alternative 4 requires less recreation facility replacement and relocation. Similar to Alternative 1, it would have short term effects and long-term benefits.
Increased use of existing parks or recreational facilities	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Same as Alternative 1	Same as Alternative 1	Alternative 4 construction would be of shorter duration (2 years) and similar to Alternative 1 would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
Cumulative effects on recreation facilities, opportunities or experiences	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	No cumulatively considerable contribution that would reduce recreational opportunities, increase the use of existing neighborhood and regional parks, or otherwise contribute to a cumulative effect on recreation facilities, opportunities or experiences.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.16: Cultural and Paleontological Resources					
Disturbance of historical or archaeological resources	No new facilities would be constructed, no existing facilities would be modified. No impact.	Potential to impact 41 known historical resources, the Reburial site, and the Kellogg Creek Historic District due to construction and/or operation. There are additional areas of moderate to high potential for undiscovered cultural resources as well as human remains within the APE.	Same as Alternative 1	Alternative 3 would result in similar but less impact than Alternative 1 because the Transfer-Bethany Pipeline would not be constructed; potential effect on 39 historic resources rather than 41. Impacts to the Kellogg Creek Historic District and historic resources within the district would remain the same as Alternative 1	Alternative 4 would result in less impact than Alternative 1, affecting 15 historic properties (26 fewer than Alternative 1), as well as the Reburial site and Kellogg Creek District. Potential effects to previously unidentified cultural resources would be reduced compared to Alternative 1 because fewer facilities would be constructed.
Paleontological resources	No new facilities would be constructed, no existing facilities would be modified. No impact.	Earth disturbing activities could intersect and destroy fossil resources within certain sedimentary formations since the depth to bedrock associated with the majority of the APE would be less than 6 feet.	Same as Alternative 1	Although Alternative 3 components involve less area with depth to bedrock of less than 6 feet when compared to Alternative 1, earth disturbing activities and associated impacts to paleontological resources would be less but similar to Alternative 1.	Although Alternative 4 components involve much less area with depth to bedrock of less than 6 feet when compared to Alternative 1, earth disturbing activities and associated impacts to paleontological resources would be less but similar to Alternative 1.
Disturbance of human remains	No new facilities would be constructed, no existing facilities would be modified. No impact.	Impact to five known burial sites as well as the Reburial site. Ground disturbing activities in some areas with moderate to high potential for previously unrecorded human remains.	Same as Alternative 1	Alternative 3 would result in the similar effects as Alternative 1 on known human remains and the Reburial site because the impacts are caused by construction of facilities common to both alternatives. Alternative 3 also proposes ground disturbing activities in some areas with moderate to high potential for previously unrecorded human remains. Although there are no known burial sites within the APE for the Old River Intake and Pump Station Expansion and no potential impacts on known sites with human remains are expected, overall effects to	Alternative 4 would not affect the Reburial site and would have fewer impacts to known human remains when compared to Alternative 1. While the extent of impacts would be less, the nature of the impacts on known and previously unrecorded human remains would be equivalent to those from Alternative 1

**TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.16: Cultural and Paleontological Resources (cont.)					
Disturbance of human remains (cont.)				known and previously unrecorded human remains under Alternative 3 would be similar to Alternative 1.	
Cumulative effects associated with disturbance of historical, archaeological or paleontological resources or disturbance of human remains	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Construction of the project and proposed Vasco Wind Energy Repowering Project could contribute to cumulative cultural resource impacts. Construction of these and additional area projects would result in a significant cumulative impact to paleontological resources. Construction would not result in cumulative impacts associated with disturbance of human remains.	Same as Alternative 1	Cumulative impacts to paleontological resources would be less but similar to Alternative 1. Cumulative effects to cultural resources would be the same as Alternative 1.	Cumulative impacts to paleontological resources would be less but similar to Alternative 1. Cumulative effects to cultural resources would be similar to but less than Alternative 1.
Section 4.17: Socioeconomic Effects					
Local income and employment	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction could temporarily generate new income and local employment affecting Contra Costa County's economy and resulting in beneficial impacts to the local economy.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Agricultural effects upon local economy	No new facilities would be constructed, no existing facilities would be modified. No impact.	Construction effects upon Contra Costa County and Alameda County's agricultural economy would be very minor.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Recreation income effects upon local economy	No new facilities would be constructed, no existing facilities would be modified. No impact.	Short-term loss of recreation income associated with project construction effects upon Contra Costa County's economy would be very minor.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1, though less impact due to shorter duration of construction.
Cumulative effects upon local income and employment	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Construction, when combined with construction of other future projects, could beneficially effect on income and local employment.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1

TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.17: Socioeconomic Effects (cont.)					
Cumulative effects upon local agricultural economy	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	The incremental contribution of farmland conversion would be a cumulatively considerable contribution to an existing cumulative impact and would therefore be unavoidable.	Same as Alternative 1	Cumulative effects would not be cumulatively considerable because no important farmland would be converted.	Cumulative effects would not be cumulatively considerable because no important farmland would be converted.
Cumulative effects of recreation income upon local economy	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Cumulative economic impacts from project-related construction and relocation of the recreation facilities would be minor.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Section 4.18: Environmental Justice					
Disproportionately affect identified minority and/or low income communities	No new facilities would be constructed, no existing facilities would be modified. No impact.	Relatively little construction would occur near the Byron CDP and none in Census Tract 3031.00, therefore construction impacts to areas with minority or low-income populations would not cause a disproportionate impact to the minority and low-income community in the area.	Same as Alternative 1	Same as Alternative 1	Alternative 4 would not implement any project activities within 2 miles of Census Tract 3031.00 or the Byron CDP, and could not cause a disproportionate impact to the minority and low-income communities in the area.
Disproportionately affect local employment opportunities for identified minority and/or low income communities	No new facilities would be constructed, no existing facilities would be modified. No impact.	Employment opportunities including apprentice positions could result in minor beneficial effects that would be equally available to all populations.	Same as Alternative 1	Alternative 3 would involve less construction, reducing opportunities for local employment; however, these jobs would be equally available to communities of concern.	Alternative 4 would involve much less construction, reducing opportunities for local employment; however, these jobs would be equally available to communities of concern.
Cumulative effects upon identified minority and/or low income communities	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Construction effects would not disproportionately affect nearby minority and/or low-income communities.	Same as Alternative 1	Same as Alternative 1	Alternative 4 would not implement any project activities within 2 miles of Census Tract 3031.00 or the Byron CDP, and could not cause a cumulative disproportionate impact to the minority and low-income communities in the area.

**TABLE 6-2 (Continued)
ALTERNATIVES IMPACT COMPARISON SUMMARY**

Resource / Impact Issue	No Project / No Action	Alternative 1 (as compared to the No Action Alternative)	Alternative 2 (as compared to Alternative 1)	Alternative 3 (as compared to Alternative 1)	Alternative 4 (as compared to Alternative 1)
Section 4.18: Environmental Justice (cont.)					
Cumulative effects upon local employment opportunities for identified minority and/or low income communities	No new facilities would be constructed, no existing facilities would be modified. No contribution to cumulative impacts.	Construction and operation would not disproportionately affect local employment opportunities for minority and/or low-income communities in the vicinity of the project.	Same as Alternative 1	Same as Alternative 1	Alternative 4 would involve much less construction, reducing cumulative opportunities for local employment; however, jobs would be equally available to communities of concern.
Section 4.19: Indian Trust Assets					
Indian Trust Asset land affected	No Trust land affected.	The project would not affect Indian Trust Assets.	Same as Alternative 1	Same as Alternative 1	Same as Alternative 1
Section 4.20: Growth-Inducing Effects					
Growth Inducement	It is expected that the South Bay water agencies would pursue supplemental water supplies to support planned growth within their service areas in accordance with their long-term water supply and management plans and Urban Water Management Plans (updated in five-year increments). CCWD would continue to serve planned growth in its services area in accordance with its Future Water Supply Plan and as planned to secure dry-year supplies to maintain supply reliability.	This alternative would improve water supply reliability of the South Bay water agencies and CCWD. It would restore some of the Delta supply the South Bay water agencies have previously planned to receive. This alternative would not support growth beyond that already planned for by the South Bay water agencies and CCWD. However, this alternative would improve water supply reliability for South Bay water agencies and CCWD compared with existing and future without project conditions.	No growth-inducing potential for South Bay water agencies; improved water supply reliability for CCWD	No growth inducing potential for South Bay water agencies; improved water supply reliability for CCWD	No growth-inducing potential for South Bay water agencies; improved water supply reliability for CCWD