Appendix B

State Water Board's Environmental Checklist

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Appendix A

Environmental Checklist Form

Appendix to the State Water Board's CEQA regulations

Cal. Code. Regs., tit. 23, div. 3 ch. 27 Sections 3720-3781

THE PROJECT

1 **Project Title:** Update to the Water Quality Control Plan for the San Francisco Bay/Sacramento–San Joaquin Delta Estuary: Water Quality Objectives for the Protection of Southern Delta Agricultural Beneficial Uses; San Joaquin River Flow Objectives for the Protection of Fish and Wildlife Beneficial Uses; and the Program of Implementation for Those Objectives

2 **Lead Agency Name and Address:**

State Water Resources Control Board

C/O Division of Water Rights

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3 **Contact Person and Phone Number:**

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4 **Project Location (i.e. Plan Area):** The State Water Resources Control Board (State Water Board) is proposing amendments to the 2006 Bay-Delta Plan to address: San Joaquin River flow requirements for the protection of fish and wildlife beneficial uses, water quality objectives for the protection of southern Delta agricultural beneficial uses, and respective programs of implementation for the flow requirements and water quality objectives.

The plan amendments involve changes in flow requirements in the San Joaquin River (SJR) Basin and changes in water quality objectives in the Sacramento–San Joaquin Delta (Delta) located in northern California. These plan amendments could directly affect portions of the SJR Basin and Delta that either drain to, divert water from, or otherwise obtain beneficial use (e.g., surface water supplies) from the following waterbodies:

- Stanislaus River from and including New Melones Reservoir to the confluence of the Lower San Joaquin River (LSJR).
- Tuolumne River from and including New Don Pedro Reservoir to the confluence of the LSJR.
- Merced River from and including Lake McClure to the confluence with the LSJR.
- LSJR between the confluence of the Merced River to Vernalis.
- Southern Delta, including the SJR from Vernalis to Brandt Bridge; Middle River from Old River to Victoria Canal; and Old River/Grant Line Canal from the Head of Old River to West Canal.

Communities within close proximity of the various rivers, rim dams[1], reservoirs, and counties in the plan area are summarized below (described from north to south).

- Stanislaus River: Calaveras and San Joaquin Counties
- New Melones Reservoir and Dam on the Stanislaus River: Calaveras and Tuolumne Counties, in proximity to communities of Angels Camp[2], Copperopolis,[3] Columbia,[2] Sonora,[1] Jamestown,[2] Copper Cove,[2] Knights Ferry.[2]
- Tuolumne River: Tuolumne and Stanislaus Counties.
- New Don Pedro Reservoir and Dam on the Tuolumne River: Tuolumne County, in proximity to unincorporated communities of La Grange, Chinese Camp, Moccasin, Blanchard, and Jamestown.
- Merced River: Mariposa and Merced Counties.
- Lake McClure and New Exchequer Dam on the Merced River: Mariposa County, unincorporated communities of Snelling and Granite Springs.
- Lower San Joaquin River: San Joaquin, Stanislaus, and Merced Counties.

The flow requirements would be released from the three rim dams on the three eastside tributaries (the Stanislaus, Tuolumne, and Merced Rivers), which are the farthest upstream impediments to fish. River flows above the three rim dams would not be changed as a result of the flow requirements because of the following.

- The Merced River unimpaired flow is essentially the same as the Lake McClure inflow because there are no major storage reservoir or diversions upstream in the Merced River watershed.

[1] In this document, the general term rim dams is used when referencing the three major dams and reservoirs on each of the tributaries: New Melones Dam and Lake, New Don Pedro Dam and Lake, and New Exchequer Dam and Lake McClure

[2] Incorporated Community; California State Association of Counties 2012.

[3] Unincorporated Community; California State Association of Counties 2012.

- Some upstream hydroelectric generating facilities operate as run-of-the-river generating plants, diverting water into penstocks and discharging water at a downstream location, without changing the total flow. These facilities are operated with appropriate minimum flow requirements for the stream reach between the forebay (diversion) and afterbay (discharge). Downstream LSJR alternatives would have no effect on these upstream hydropower facilities.
- Some upstream reservoirs provide seasonal storage of winter runoff and snowmelt to provide a more constant flow through downstream hydroelectric generating facilities, and to allow irrigation diversions to remain higher to the summer irrigation season. These upstream reservoirs are operated with declining storage in the summer and fall, and increasing storage in the winter and spring. The fraction of the unimpaired runoff that is retained in these upstream reservoirs depends on the upstream watershed area and is a small fraction of the watershed runoff. For example, the total upstream storage in the Stanislaus River watershed is about 450 thousand acre-fee (TAF). New Spicer Meadows is the largest reservoir (180 TAF capacity) with a watershed area of 45 square miles; the runoff to New Spicer Meadows would be about 5 percent of the unimpaired runoff at New Melones Dam (watershed of 980 square miles). Therefore, operations of these upstream storage facilities can continue without regard to the downstream flow objectives. The seasonal inflow to the major downstream reservoirs (i.e., New Melones, New Don Pedro) will be reduced by the upstream seasonal storage, but this may allow a greater total seasonal storage for water supply and hydroelectric energy generation.
- The Tuolumne River has major upstream reservoirs and hydroelectric facilities and a significant upstream diversion (e.g., CCSF, Hetch-Hetchy aqueduct), but the water rights and operating agreement for New Don Pedro Reservoir includes seasonal storage in the CCSF upstream reservoirs and water banking between TID, MID and CCSF. The water accounting for New Don Pedro Reservoir would likely be modified by the LSJR alternatives, but the upstream CCSF operations (storage, hydropower, and water diversion) are expected to be unchanged.

As a result, the upstream watersheds of the three eastside tributaries are not included in the plan area and are not discussed further in the checklist.

The flow requirements are expected to result in no change to the baseline annual Central Valley Project (CVP) or State Water Project (SWP) exports because the annual inflow of the LSJR into the southern Delta is expected to increase. As discussed in this SED Chapter 16, *Growth Inducing Effects and Irreversible Commitment of Resources*, the potential change to exports is expected to have a very limited effect on the CVP/SWP export service areas since minor increases in exports under the flow requirements are not considered to be growth inducing. Although modeling predicts minor increases in exports on an average annual basis, the annual variability of exports is high, and actual exports are controlled by a variety of factors, including weather patterns, annual agricultural practices, economic conditions, and availability of water from other sources (e.g., groundwater, local water sources, recycled water, Colorado River supplies) south of the Delta and in the CVP/SWP export service areas. In addition, exports are controlled by many other laws, regulations, permits, and water rights that address the timing and amount of permissible exports, only some of which are related to the availability of water in the

Delta for export, and these requirements vary from year to year. Furthermore, the modeled increases in exports are minor and well within both the range of normal variation experienced from year to year and the likely accuracy of modeling results at this scale of predictability. Therefore, the CVP/SWP export service areas are not included in the plan area and are not further discussed in the checklist.

5 **Description of Project:** The State Water Board is proposing amendments to the 2006 Bay-Delta Plan to address: San Joaquin River flow requirements for the protection of fish and wildlife beneficial uses; water quality objectives for the protection of southern Delta agricultural beneficial uses; and respective programs of implementation for the flow requirements and water quality objectives. The plan amendment(s) include potential changes to the monitoring and special studies program included in the 2006 Bay-Delta Plan. The flow requirements and the water quality objectives are summarized below. A detailed description of the flow requirements and water quality objectives is found in this SED Chapter 3, *Alternatives Description,* and Appendix K, *Revised Water Quality Control Plan*.

Flow Requirements: The plan amendment(s) would establish narrative flow requirements that would maintain flow conditions from the SJR watershed to the Delta at Vernalis sufficient to support and maintain the natural production of viable native SJR fish populations migrating through the Delta.

The program of implementation for the flow requirements would include: Monthly flow requirements expressed as percentages of unimpaired flow in the juvenile rearing and migration months of February–June on the three eastside tributaries of the LSJR; water rights actions, modification to the Federal Energy Regulatory Commission (FERC) hydropower licensing process; adaptive management of flows February–June; and special studies, reporting, and monitoring. In addition, the program of implementation would require a base flow of 1,000 cubic feet per second (cfs) at Vernalis February–June. Finally, the State Water Board would coordinate with federal, state, and local agencies to determine when the percent of unimpaired flow requirement would cease to apply when high flows or flooding would cause public safety concerns. During the implementation proceeding for the narrative flow requirement, the State Water Board may establish minimum reservoir carryover storage or other requirements to assure that the provision of flows to meet the narrative flow requirement does not have adverse impacts on coldwater pool levels or related fisheries.

Southern Delta Water Quality Objectives: The water quality objectives would set the numeric interior southern Delta compliance stations to either 1.0 deciSiemens per meter (dS/m) or 1.4 dS/m. The program of implementation for the water quality objectives would do the following: continue to implement conditions of USBR's water rights in compliance with the salinity objective at Vernalis; continue the operation of agricultural barriers at Grant Line Canal, Middle River, and Old River at Tracy to maintain water levels and circulation; complete the monitoring special study, modeling improvement plan, and monitoring and reporting protocol; and develop and implement a comprehensive operations plan.

The water quality objective for salinity for the three interior compliance stations is currently 0.7 dS/m April–August and 1.0 dS/m September–March (30-day average). Although these objectives have not always been met in the southern Delta, the historical salinity in the southern Delta generally ranges between 0.2 dS/m and 1.2 dS/m during all months of the year. There is a strong relationship between salinity

measured at Vernalis and salinity measured in the southern Delta. Generally, the salinity in the southern Delta increases by a maximum of 0.2 dS/m above the Vernalis salinity. Thus, when the Vernalis meets the current water quality objective for salinity, the salinity in the southern Delta is maintained between 0.7 dS/m and 1.2 dS/m (based on the historical monthly EC[4] (salinity) record). Because the numeric water quality objectives would maintain the existing water quality objective for salinity at Vernalis, it is expected that salinity levels in the southern Delta would remain within the general historical range (0.2 dS/m–1.2 dS/m), and there would be no change from baseline. Furthermore, the program of implementation for the water quality objectives would result in a continuation of maintaining water levels and circulation in the southern Delta. This would require continued operation of the temporary barriers in the southern Delta. Therefore, there is no expected change from baseline associated with the operation of the barriers.

Methods of Compliance: Approving the flow requirements and the water quality objectives, including their respective programs of implementation (both described above), would result a fairly limited number of environmental impacts as discussed in the below checklist. However, since the flow requirements or water quality objectives could be considered performance standards under Public Resources Code (Pub. Resources Code) Section 21159, an evaluation of the environmental impacts related to reasonably foreseeable methods of compliance with the flow requirements or water quality objectives is required. The evaluation is based on the State Water Board's checklist and is in Appendix H, *Evaluation of Methods of Compliance*. Resources evaluated in Appendix H include all of those on the checklist (i.e., aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology/soils, greenhouse gases, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utility and service systems).

Consistent with Section 21159 and the State Water Board's regulations, this evaluation does not engage in speculation or conjecture but rather considers the reasonably foreseeable environmental impacts of the reasonably foreseeable methods of compliance with the amendments to the Bay-Delta Plan. Any potential environmental impacts depend upon the specific compliance methods and mitigation selected by the entities responsible for implementing site-specific projects. CEQA may require those entities to conduct a project-level analysis of the method by which they chose to comply. Therefore, any potential environmental impacts associated with the methods of compliance depend on the specific compliance methods and mitigation selected by the entities responsible for implementing site-specific projects, most of which are public agencies subject to their own CEQA obligations, as described in Appendix H.

The specific actions that could be undertaken by an entity to comply with the water quality objectives would depend on a number of factors, including feasibility, cost,

[4] EC is electrical conductivity, which is generally expressed in deciSiemens per meter (dS/m) in this appendix. Measuring EC assesses salinity, which is the concentration of dissolved salts (often expressed in parts per thousand or parts per million). Because salinity refers to salt concentration in the water, whereas EC values are the result of one measurement technique to assess salinity, both "EC" and the more general term "salinity" are used in this appendix.

flexibility, time to implement, location, and likelihood of success. Thus, the specific compliance method that an entity would select is speculative at this point. The timing, location, and magnitude of specific actions that could be undertaken by individual entities in the future cannot be fully predicted or described, and these indirect potential environmental impacts of the methods of compliance would be considered speculative pursuant to Section 15145 of the State CEQA Guidelines. Therefore, Appendix H, *Evaluation of the Methods of Compliance*, presents a conceptual evaluation of the possible environmental effects of the methods of compliance and actions that could be undertaken by each individual entity in the future.

6 **Evaluation of the Environmental Impacts in the Checklist:** The following presents the requirements of the State Water Board with respect to the checklist.

A. The State Water Board must complete an environmental checklist prior to the adoption of plans or policies for the Basin/208 Planning program as certified by the Secretary for Natural Resources. The checklist becomes a part of the Substitute Environmental Documentation (SED).

B. For each environmental category in the checklist, the State Water Board must determine whether the project will cause any adverse impact. If there are potential impacts that are not included in the sample checklist, those impacts should be added to the checklist.

   i "Potentially Significant Impact" applies if there is substantial evidence that an impact may be significant. If there are one or more "Potentially Significant Impact" entries on the checklist, the SED must include an examination of feasible alternatives and mitigation measures for each such impact, similar to the requirements for preparing an environmental impact report.

   ii "Less than Significant with Mitigation Incorporated" applies if the State Water Board or another agency incorporates mitigation measures into the SED that will reduce an impact that is "Potentially Significant" to a "Less-than-Significant Impact." If the State Water Board does not require the specific mitigation measures itself, then they must be certain that the other agency will in fact incorporate those measures.

   iii Less than Significant" applies if the impact will not be less than significant, and mitigation is therefore not required.

   iv If there will be no impact, check the box under "No Impact."

C. The State Water Board must provide a brief explanation for each "Potentially Significant," "Less than Significant with Mitigation Incorporated," "Less than Significant'" or "No Impact" determination in the checklist. The explanation may be included in the written report described in Section 3777(a)(1) or in the checklist itself. The explanation of each issue should identify (a) the significance criteria or threshold, if any, used to evaluate each question; and (b) the specific mitigation measure(s) identified, if any, to reduce the impact on less than significant. The State Water Board may determine the significance of the impact by considering factual evidence, agency standards, or thresholds. If the "No Impact" box is checked, the State Water Board should briefly provide the basis for that answer. If there are types of impacts that are not listed in the checklist, those impacts should be added to the checklist.

D. The State Water Board must include mandatory findings of significance if required by State CEQA Guidelines Section 15065.

E. The State Water Board should provide references used to identify potential impacts, including a list of any individuals contacted.

ISSUE SUMMARY[5]

The environmental Issues checked below would potentially be affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☑ Aesthetics[1]	☑ Agriculture Resources	☐ Air Quality
☑ Biological Resources	☑ Cultural Resources	☑ Geology/Soils
☑ Greenhouse Gases	☐ Hazards & Hazardous Materials	☑ Hydrology/Water Quality
☑ Land Use/Planning[2]	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☑ Recreation
☐ Transportation/Traffic	☑ Utilities/Service Systems	☑ Mandatory Findings of Significance

[1] The potentially significant aesthetic impacts are related to recreationalists and therefore are addressed in SED Chapter 10, *Recreational Resources and Visual Quality.*

[2]The potentially significant land use/planning impacts are related to Habitat Conservation Plans and Natural Community Conservation Plans and therefore are addressed in SED Chapter 7, *Aquatic Resources* and SED Chapter 8, *Terrestrial Biological Resources.*

[5] An initial significance determination for each environmental resource impact for the flow requirements and water quality objectives is provided based upon the assessment. The impact determinations for the flow requirements and/or water quality objectives for each threshold within each environmental resource topic are identified by a checkmark in the table. Only those impacts for the flow requirements and/or water quality objectives determined to be potentially significant are included for further analysis in a resource chapter in the SED. An impact is not considered potentially significant if the magnitude and/or possibility of occurrence are below the applied threshold of significance or would be considered speculative or if mitigation could reduce the impact to a less-than-significant level. For potential environmental impacts associated with MOCs, see Appendix H.

ISSUES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS				
Would the project:				
a) Have a substantial adverse effect on a scenic vista?[6]	❒	❒	☑	❒

Discussion

Scenic vistas are areas which have aesthetic value based on their visual characteristics to the greater public and are generally designated by local land use documents, such as county general plans. A general description of scenic vistas designated by county general plans within the proximity of the SJR and three eastside tributary rivers is provided for reference below. No specific scenic vistas are designated except for the Merced River and SJR corridors located in the foothills and mountains of the Sierra Nevada. Scenic vistas of the rivers include features of the surrounding landscape, such as hills, mountains, valleys, vegetation, and other natural resources.

The counties in the plan area contain varying provisions in their general plans designating and protecting scenic vistas. Specific scenic vistas are not designated in the *County of Calaveras General Plan* (County of Calaveras 1996). However, the general plan does state that most of the county contains topographic variations and resources that contribute to the county's scenic quality and rural character. These resources include reservoirs, rivers and streams, rolling hills with oak habitat, ridgelines, and forests. Goal V-6 in the general plan calls for the preservation and protection of the scenic qualities of Calaveras County (County of Calaveras 1996). New Melones Reservoir is located in the incorporated city of Angels Camp in Calaveras County. The *General Plan of Angels Camp* does not designate specific scenic vistas (City of Angels Camp 2009). Policies included in the *San Joaquin County General Plan* provide for the protection of views of waterways and preservation of outstanding scenic vistas but do not designate specific scenic vistas (County of San Joaquin 2010). General plans for the counties of Tuolumne and Stanislaus do not designate specific scenic vistas (County of Tuolumne 1996; County of Stanislaus 2011). The *General Plan of the County of Mariposa* does not designate specific scenic vistas (County of Mariposa 2011). However, the General plan contains policies that provide for the establishment of measures for the protection of large-scale views and viewsheds through comprehensive development standards (County of Mariposa 2006). Standards must take into account the scenic aspect of the county to conserve designated views and viewsheds (County of Mariposa 2006). Scenic vistas are generally identified in the *Merced County General Plan* (County of Merced 2012). These

[6] Unless expressly noted otherwise, the questions represent thresholds of significance for purposes of evaluating potential impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

scenic vistas include the Merced River and SJR corridors. Goal NR-4 in the plan calls for the protection of scenic resources and vistas (County of Merced 2011).

Flow: The flow requirements could change the volume of water in the three eastside tributaries and LSJR. However, flows would generally remain within the range of historic levels with annual and interannual variation. Viewers of river corridors from scenic vistas would be expected to experience views similar to the existing ones, with peak flows and full rivers during winter storms when reservoirs spill water and lower flows during the summer and fall when water may be diverted for irrigation or other beneficial uses. Therefore, the change in flows in the river would not significantly alter or adversely change the baseline surrounding landscapes viewed from scenic vistas.

Surface water elevations at reservoirs may be modified by the flow requirements. The surface water elevations currently experience wide fluctuations and no scenic vistas have been designated around the reservoirs. However, the reservoirs have been identified as contributing to the scenic quality of the landscapes in the various watersheds; therefore, changes in surface water elevation at the reservoirs that may substantially degrade visual character and quality will be addressed under Threshold I(c).

The flow requirements could result in a change to the type of agricultural lands in the plan area as a result of potential modifications to surface water diversions (e.g., could be removed from agricultural production and fallowed in perpetuity because of the reduced availability of irrigation water). However, agricultural land that is under active production is regularly modified throughout the year. The landscape and views of agricultural land are continually changing with the types of crops grown, which is dictated by numerous variables, such as the seasons and economy. Therefore, any changes to agricultural crop type or production are not expected to have a substantial adverse effect on an existing scenic vista that may afford views of the agricultural areas.

Impacts on scenic vistas associated with the flow requirements would be less than significant.

Southern Delta Water Quality: The existing salinity of the southern Delta would remain within the general historical range of salinity (i.e., 0.2 dS/m–1.2 dS/m). This is because the water quality objective at Vernalis would continue to be met. The water quality objectives would have no potential to impact scenic vistas in the southern Delta because it is anticipated that baseline water quality conditions would meet the water quality objectives. Therefore, there would be no impacts.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	❒	❒	☑	❒

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

One of the largest viewer groups affected by changes along a state scenic highway is the travelers along the roadways. Many of the roadways in close proximity to the reservoirs and along the rivers serve as commercial and commuter routes as well as scenic routes used by recreationists. Viewers who frequently commute via these roadways generally have low visual sensitivity to their surroundings. The passing landscape becomes familiar, and their attention is typically focused elsewhere. At standard roadway speeds, views are fleeting, and travelers are more aware of surrounding traffic, road signs, the automobile's interior, and other visual features of the environment. However, these roadways also may be traveled for their scenic qualities, and recreational travelers on such roadways are likely to have moderate sensitivity because they seek out such routes for their aesthetic viewsheds. Therefore, viewers traveling along state designated scenic highways for recreational purposes are considered moderately sensitive to the views they experience because these views typically are comprised of specific aesthetic resources (e.g., landscapes with variable topography, trees, rocks, etc.). Existing designated state scenic highways in the plan area that could have their views affected as a result of implementing the flow requirements or water quality objectives are described below.

Flow: State Route 49 is an eligible state scenic highway route extending through Calaveras, Tuolumne, and Mariposa Counties within the general proximity of the Stanislaus River, New Melones Reservoir, and Tulloch Reservoir; the Tuolumne River and New Don Pedro Reservoir; and the Merced River, Lake McClure, and New Exchequer Dam (Caltrans 2011a). The eligible portion of State Route 49, traveling from north to south, begins in Calaveras County, crosses New Melones Reservoir, the Tuolumne County line, the Tuolumne River as the river enters New Don Pedro Reservoir, the Merced River as it enters Lake McClure, and extends to the southern Mariposa County line (Caltrans 2011a). Views available to viewers using the roadway generally consist of the eastern Sierra Nevada, comprised of variable topography (mountains, hills, valleys, meadows), trees, rocks, etc. Some rural residential buildings are interspersed along this route along with small towns. The following reservoirs and rivers are visible as the road crosses them: New Melones Reservoir in Calaveras County, Tuolumne River in Tuolumne County, and the Merced River in Mariposa County. The Stanislaus River and Tulloch Reservoir are generally not visible from this route because of intervening landscape and topography (e.g., elevation changes associated with hills and trees). The surface water elevation in the reservoirs is influenced by seasonal changes and the seasonal operation of the dams and this seasonal variation creates an area of exposed sediment with no vegetation growing (also known as the fluctuation zone). Viewers of the reservoirs traveling along the highway currently can view the fluctuation zone as water is released.

Flows in the rivers and reservoirs would not have the ability to substantially damage scenic resources such as trees, rock outcroppings, and historic buildings adjacent to the scenic road because it is expected water would remain within existing channels and existing reservoirs. Furthermore, the State Route 49 is currently only eligible as a scenic highway and not fully designated. Therefore, impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

The eligible portion of State Route 108 begins at the junction of State Route 49 and travels north past Sonora to the northern Tuolumne county line (Caltrans 2011a). Visibility of the reservoirs and rivers is generally limited due to distance and intervening topography and vegetation. Flows in the river and reservoir surface water elevation changes would not physically damage scenic resources, such as trees, rock outcroppings, and historic buildings because it is expected water would remain within their existing channels and existing reservoirs. Furthermore, the road is currently only eligible as a scenic highway and not fully designated. Therefore, impacts would be less than significant.

Interstate 5 is a state designated highway route within general proximity of the LSJR. The interstate is designated in the following areas: approximately15 miles in Merced County from State Route 152 to the Stanislaus County line, approximately 28 miles in Stanislaus County from the Merced County line to the San Joaquin County line, and approximately 0.7 miles in San Joaquin County from the Stanislaus County line to Interstate 580 (Caltrans 2011b). This route is located in California's Central Valley, paralleling the Delta-Mendota Canal and the California Aqueduct, which contribute to the agricultural in the area (Caltrans 2011b). However, the LSJR is generally located more than 5 miles to the east of Interstate 5 and generally is not visible to viewers traveling along the freeway as a result of distance and atmospheric conditions (e.g., weather or haze). Furthermore, flows in the river would not physically damage scenic resources, such as trees, rock outcroppings, and historic buildings because it is expected water would remain in the river. Therefore, impacts would be less than significant.

Southern Delta Water Quality: There is one state designated scenic highway route in the southern Delta located in San Joaquin County (Caltrans 2011b). It consists of approximately 0.7 miles of Interstate 5 extending from the Stanislaus County line to Interstate 580 (Caltrans 2011b). Views in this area are comprised of flat agricultural lands and some foothills with interspersed suburban/urban development. A change in the water quality objectives would not result in an impact on viewers using the designated section of Interstate 5. The existing salinity of the southern Delta would remain within the historical range of salinity under either objective. This is because the salinity objective at Vernalis would continue to be met. Therefore, there would be no impacts.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☑	❒	❒	❒

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

The visual character and quality of an area is influenced by the different land uses within a view, the intactness (i.e., completeness) of a view, and the vividness (i.e., how the view stands out) of a view. Visual character and quality in relation to the plan area and the flow requirements and water quality objectives is discussed below.

Flow: The new flow requirements would apply to rivers currently located in the mountains and foothills of the eastern Sierra Nevada. The visual character and quality of these areas is generally characterized by intact and vivid views of mountains, foothills, trees, and other topographical features and natural resources. As the rivers leave the foothills and enter the valley, the visual character and quality is generally characterized by less intact and vivid views of flatter land that has less topographic and is interrupted by development along the rivers, such as business buildings and residential homes, as well as flat agricultural land. Due to the variability of rivers and the dynamic shoreline, viewers are generally less sensitive to changes in river height, and are affected only by severely high or low flows. Although the flow requirements would alter the flows in the river, and thus potentially the water level and appearance, these differences would not constitute a significant change in the visual quality of the plan area because flows would generally be within the baseline historical range and viewers are not sensitive to these changes. Furthermore, the LSJR alternatives would not be influencing flood flows currently produced by the rim dams and would be eliminating lower flows during critical and critically dry years. Therefore, the new flow requirements would not significantly degrade the visual character or quality of the rivers within the landscape, and impacts would be less than significant.

The flow requirements could result in a change in reservoir surface water elevations, which could substantially degrade the existing visual character or quality of the reservoirs experienced by recreationists using the reservoirs. Therefore, impacts would be potentially significant and this impact is addressed in SED Chapter 10, *Recreational Resources and Visual Quality*.

As discussed above in Threshold I(a), the flow requirements could result in a change to the type of agricultural lands in the plan area as a result of potential modifications to surface water diversions. However, agricultural land that is under active production is regularly modified throughout the year. The landscape and views of agricultural land is continually changing with the types of crops grown, which is dictated by numerous variables, such as the seasons and economy. Therefore, any changes to agricultural crop type or production are not expected to result in a substantial degradation of the existing visual character or quality of agricultural lands and the impact is therefore considered less than significant.

Southern Delta Water Quality: The water quality objectives would apply to salinity in the southern Delta. The southern Delta is comprised of relatively intact and vivid views of primarily rural land with vast areas of open space and flat agricultural land interspersed with the waterways and levees. Trees and other nonagricultural vegetation are also prevalent along waterways. Views become more suburban and urban around the city of Tracy and other smaller municipal areas with increasing commercial buildings, roads, and residential homes. A change to the water quality objectives would not result in a substantial degradation of the

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

existing visual character and quality of the southern Delta. The existing salinity of the southern Delta would remain within the general historical range of salinity under the water quality objectives because the salinity objective at Vernalis would continue to be met. Therefore, impacts would not occur.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives would not produce light or glare. The flow requirements would alter the volume of water in existing rivers during different times of the year. The salinity of the southern Delta would remain within the general historical range of salinity under the water quality objectives. This is because the water quality objective for salinity at Vernalis would continue to be met. Neither would result in light or glare. Therefore, there would be no impacts.

II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (LESA 1997), prepared by the California Department of Conservation, as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, such as timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and Forest Legacy Assessment Project, as well as forest carbon measurement methodology in forest protocols adopted by the California Air Resources Board (ARB).

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☑	❒	❒	❒

Discussion

Flow: The flow requirements on the three eastside tributaries, including the program of implementation (e.g., water rights proceeding), could result in a decrease in surface water diversions, many of which are used to supply irrigation water to agricultural lands within the plan area. The flow requirements could result in a loss of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as these types of agricultural land categories primarily rely on irrigation water. A loss of these types of agricultural lands could result in a conversion to nonagricultural uses. Potentially significant impacts would occur; therefore, this issue is addressed in SED Chapter 11, *Agricultural Resources*.

Southern Delta Water Quality: Agricultural uses in the southern Delta currently use water diverted from existing waterways and rely on suitable water quality to irrigate existing crops. Historically, the salinity in the southern Delta ranges from approximately 0.2 dS/m to 1.2 dS/m. Therefore, generally the water quality in the southern Delta sometimes has higher salinity when compared to the current water quality objective. Southern Delta water quality is currently suitable for all crops being farmed in the southern Delta. Southern Delta salinity would remain within the general historical range of salinity because the water quality objective for salinity at Vernalis would continue to be met. Thus, salinity on the LSJR and the southern Delta is not expected to substantially change. However, salt-sensitive crops, such as dry beans, could be affected. Potentially significant impacts would occur; therefore, this issue is addressed in SED Chapter 11, *Agricultural Resources*.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	❒	❒	☑	❒

Discussion

The California Land Conservation Act of 1965 (Williamson Act) recognizes the importance of protecting the public interest in agricultural land and provides a tax incentive for the voluntary enrollment of agricultural and open space lands in contracts between local government and landowners (California Department of Conservation 2007; Gov. Code, § 51200 et seq.). The Williamson Act provides a tax incentive for the voluntary enrollment of agricultural and open space lands in contracts between local government and landowners. The contract restricts the land use to agricultural and open space or compatible uses defined in state law and local ordinances. An agricultural preserve, which is established by local government, defines the boundary of an area within which a city or county will enter into contracts with landowners; only land located within an agricultural preserve is eligible for a Williamson Act contract.

The cities and counties within the plan area may have agricultural zoning that typically identifies the parcel size associated with agricultural uses. Therefore, zoning only indirectly affects the types of agricultural land uses that can be performed in a particular area and does not generally relate to the preservation or protection of agricultural production in cities or counties

Flow: Williamson Act contracts (2009) for lands in Stanislaus, Merced, Madera, and San Joaquin Counties total 791,762 acres or approximately 22 percent of the existing agricultural lands in these counties. While land must be maintained as open space or agricultural lands to qualify for the Williamson Act, land under the Williamson Act is not required to be irrigated. The flow requirements would not conflict with the existing Williamson Act. As discussed above, lands in Williamson Act contracts do not need to be irrigated and can be open space. Therefore, it is expected under the flow requirements that conflicts would not occur and impacts would be less than significant. The flow requirements would not conflict with existing zoning for agricultural use. Only cities and counties enact zone change. The flow requirements would not change zoning and would not require a discretionary action that conflicts with a land zoned for agriculture. The flow requirements may result in reduced irrigation available for agriculture in the plan area; however, if lands do not receive irrigation, they could be dryland farmed, rotated, or fallowed, all of which would be consistent with agricultural zoning. Therefore, a conflict would not occur as a result of the flow requirements, and agricultural land would continue to maintain existing zoning. Impacts would be less than significant.

Southern Delta Water Quality: Williamson Act contracts for lands in San Joaquin County totaled 359,602 acres or approximately 40 percent of total acreage (2009). Agricultural uses in the southern Delta currently divert water from existing waterways and rely on suitable water quality to irrigate existing crops. The southern Delta water quality objectives would not conflict with existing Williamson Act contracts or zoning for agricultural use because they would not

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

result in an action that would change existing zoning, and activities consistent with agricultural zoning and Williamson Act contracts would continue in the southern Delta. Therefore, impacts would be less than significant.

c) Conflict with existing zoning for, or cause rezoning of forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives would not result in a conflict of existing zoning or cause the rezoning of forestland because they would not change existing zoning. Therefore, there would be no impacts.

d) Result in the loss of forestland or conversion of forestland to nonforest use?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives would not result in a loss of forestland or conversion of forestland to nonforest use because forestland is not irrigated with water from the three eastside tributaries or LSJR, and there are no forests present in the southern Delta. Therefore, there would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to nonforest use?	☑	❒	❒	❒

Discussion

Flow and Southern Delta Water Quality: As discussed in II(a), impacts on farmland would be potentially significant and this issue is addressed in SED Chapter 11, *Agricultural Resources*. As discussed in II(c) and II(d), there would be no impacts on forestland.

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	❒	❒	☑	❒

Discussion

Ambient air quality is affected by the climate, topography, and type and amount of pollutants emitted. The San Joaquin Valley Air Basin (SJVAB) is subject to a combination of topographical and climatic factors that result in high potential for regional and local accumulation of pollutants. The following discussion describes climatic and topographic characteristics of the SJVAB and the Mountain Counties Air Basin (MCAB), a description of criteria pollutants, relevant air quality standards, and existing air quality conditions within the basins.

Climate and Topography: The plan area is partially located in the SJVAB. The mountain ranges bordering the air basin the Coast Ranges to the west and Sierra Nevada to the east influence wind directions and speeds and atmospheric inversion layers in the San Joaquin Valley. These mountain ranges channel winds through the valley, affecting both the climate and dispersion of air pollutants. Because of the mountain ranges bordering the air basin, temperature inversions occur frequently in the valley. Inversions occur when the upper air is warmer than the air beneath it, thereby trapping pollutant emissions near the surface and not allowing them to disperse upward. Inversions occur frequently throughout the year in the

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

SJVAB, though they are more prevalent and of a greater magnitude in late summer and fall.

The plan area is also located within the MCAB. The general climate of the region varies based on elevation and proximity to the Sierra Nevada. Due to the complex features of the terrain within the basin, it is possible for various climate types to exist in proximity to one another; the varying patterns of mountains and hills in the basin result in a wide variation of temperature, rainfall, and localized wind. Seasonal meteorology varies substantially, and precipitation generally is light in the summer and much heavier in the winter, with temperatures dropping below freezing at night and precipitation being a mixture of light rain and snow. The meteorology and topography combine so local conditions predominate in determining the effect of emissions in the basin. Inversion layers frequently occur in small valleys and trap pollutants (e.g., carbon monoxide) close to the ground in winter and summer, when longer daylight hours, high temperatures, and stagnant air conditions are suitable for the formation of some criteria pollutants (e.g.,ozone).

Criteria Pollutants: The federal and state governments have established ambient air quality standards (AAQSs) for the following criteria pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (both particulate matter smaller than 10 microns or less in diameter [PM10] and particulate matter smaller than 2.5 microns or less in diameter [PM2.5]), and lead. Ozone, NO_2, and particulate matter are generally considered to be regional pollutants as these pollutants or their precursors affect air quality on a regional scale. Pollutants such as CO, SO_2, lead, and particulate matter are considered to be local pollutants. Particulate matter is considered to be both a local and a regional pollutant. In the plan area, PM2.5, PM10, and ozone are considered pollutants of concern. Brief descriptions follow below. Toxic air contaminants (TAC) are also discussed below, although no state or federal AAQSs exist for TACs.

Ozone: Ozone is a respiratory irritant that increases susceptibility to respiratory infections and is a severe eye, nose, and throat irritant. It is also an oxidant that can cause substantial damage to vegetation and other materials. Ozone causes extensive damage to plants by discoloring leaves and damaging cells. Ozone also attacks synthetic rubber, textiles, and other materials. Ozone is primarily a summer air pollution problem. The ozone precursors, reactive organic gases (ROGs) and oxides of nitrogen (NO_X), are mainly emitted by mobile sources and stationary combustion equipment.

Carbon Monoxide: Carbon monoxide is a public health concern because it combines readily with hemoglobin and reduces the amount of oxygen transported in the bloodstream. Carbon monoxide can cause health problems such as fatigue, headache, confusion, dizziness, and even death. Motor vehicles are the dominant source of CO emissions in most areas. Data indicate that local CO concentrations do not approach the state standards; however, CO concentrations in the vicinity of congested intersections and freeways would be expected to be higher than those recorded at the monitoring station. CO concentrations are expected to continue to decline in the SJVAB because of existing controls and programs and the continued retirement of older, more polluting vehicles.

Inhalable Particulates: Inhalable particulates can damage human health and retard plant growth. Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled. Particulates also reduce visibility and

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

corrode materials. Particulate emissions are generated by a wide variety of sources, including agricultural activities, industrial emissions, dust suspended by vehicle traffic and construction equipment, and secondary aerosols formed by reactions in the atmosphere.

Toxic Air Contaminants: TACs are pollutants which may be expected to result in an increase in mortality or serious illness or which may pose other present or potential hazards to human health. Health effects include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases which lead to death. Although AAQSs exist for criteria pollutants, no

standards exist for TACs. For TACs that are known or suspected carcinogens, ARB has consistently found that there are no levels or thresholds below which exposure is risk free.

Sensitive Receptors: Some population groups, such as children, the elderly, and acutely ill and chronically ill persons, especially those with cardio-respiratory diseases, are considered more sensitive to air pollution than others. The San Joaquin Valley Air Pollution Control District (SJVAPCD) generally defines a sensitive receptor as a facility that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants, and where there is a reasonable expectation of continuous human exposure according to the averaging period for the AAQSs (e.g., 24-hour, 8-hour, or 1-hour). There are known sensitive receptors in the plan area.

State Air Quality Regulations: The U.S. Environmental Protection Agency (USEPA) has assigned ARB the responsibility to achieve California's air quality standards, which are more stringent than federal standards. ARB, in turn, has delegated that authority to individual air districts. The districts are to establish district-level air management plans and incorporate them into a state implementation plan (SIP).

ARB traditionally has established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs.

Responsibilities of local air districts include overseeing stationary source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required by CEQA.

Each of the 35 air pollution control districts in California has its own new source review program and issues its own new source review or prevention of significant deterioration permits to construct and operate. To do so, each district has adopted its own rules and regulations to comply with state and federal laws. These regulations usually incorporate both the California and federal regulations into one or more rules. Depending on the quantity of air pollutants that will be emitted from the source and the area designation for that pollutant, the new or modified source may be required to install best available control technology (BACT). In addition, new and/or modified sources in California may be required, depending on the type and quantity of pollutants emitted, to mitigate or offset the increases in emissions resulting from installation of BACT/lowest achievable emission rate. Conversely, if a source shuts down a permitted emission unit or decreases emissions greater than what is required by any district,

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

state, or federal rule, it may receive emission reduction credits that it may use at a later date to offset new emissions, or that it can sell to another facility that may be increasing its emissions. The cost of these emission-reduction credits is set by the owner of the credits and varies depending on type of pollutant and the district in which they are generated.

Local Air Quality Regulations: Areas are classified as either an attainment or nonattainment area with respect to state and federal air quality standards. These classifications are made by comparing actual monitored air pollutant concentrations to state and federal standards. If a pollutant concentration is lower than the state or federal standard, the area is classified as being in attainment of the standard for that pollutant. If a pollutant violates the standard, the area is considered a nonattainment area. If data are insufficient to determine whether a pollutant is violating the standard, the area is designated unclassified. Areas that were previously designated as nonattainment areas but have recently met the standard are called maintenance areas.

PM10, PM2.5, and ozone are of particular concern in the SJVAB. USEPA has classified SJVAB as an extreme nonattainment area for the federal 8-hour ozone standard and a nonattainment area for the federal PM2.5 standard. For the federal CO standard, USEPA has classified most major population centers of the SJVAB as maintenance areas and rural areas of the SJVAB as unclassified/attainment areas. The SJVAB is classified as a serious maintenance area with regards to the federal PM10 standards[7]. ARB has classified the SJVAB as a severe nonattainment area for the state 1-hour ozone standard and a nonattainment area for the state 8-hour ozone, PM10, and PM2.5 standards. ARB has classified the SJVAB as an attainment area for the state CO standard. SJVAPCD has adopted an air quality improvement plan that addresses NO_X and ROGs, both of which are ozone precursors and contribute to the secondary formation of PM10 and PM2.5. The plan specifies that regional air quality standards for ozone and PM10 concentrations can be met through the use of additional source controls and trip reduction strategies. It also establishes emission budgets for transportation and stationary sources. Those budgets, developed through air quality modeling, reveal how much air pollution can be present in an area before national AAQSs are violated. The state has classified the MCAB in nonattainment for ozone and PM10 in Calaveras County and in nonattainment for ozone in Mariposa and Tuolumne Counties.

Emissions associated with typical construction activities include construction equipment exhaust, fugitive dust emissions, energy consumption emissions, and mobile source emissions associated with worker commute and material delivery activities. Emissions associated with typical operations include motor vehicle emissions and area source emissions, which often consist of the onsite combustion of natural gas for space and water heating, consumer products (cleaning supplies, kitchen aerosols, cosmetics, and toiletries), and the reapplication of architectural coatings. Approving the flow requirements and the water quality objectives, , would neither result in construction activities nor result in increased operational elements (i.e., additional workers, operational and maintenance activities).

[7] The region was reclassified by the EPA from a nonattainment to attainment area for the federal PM10 standard. However, because of the region's previous nonattainment classification for PM10, it is actually a serious maintenance area for the federal PM10 standard.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Therefore, the analysis below evaluates impacts associated with approving the flow requirements or water quality objectives.

Flow: The flow requirements could result in decreased hydropower generation because of the reoperation of the reservoirs. This loss in hydropower generation may necessitate increased production from other power facilities to offset the loss. The lost hydropower generation would be replaced by facilities that currently generate power, such as other renewable generating sources or non-renewable sources. The generation of additional power could result in increased criteria pollutant emissions at other power facilities. However, these power facilities are already built and permitted to emit a maximum amount of criteria pollutants. These facilities are required to offset additional power generation by using pollution credit under existing regulations. Therefore, if additional emissions are generated as a result of a loss of hydropower from the flow requirements, these emissions would be generated by facilities that are permitted to do so. The permit requirements would ensure that there would be no net increase in pollutant emissions, and would be consistent with the air quality plans because there would be no net increase due to the facility's permit requirements.

The flow requirements may also result in additional groundwater pumping to offset the reduction of surface water diversions. This groundwater pumping is anticipated to be within irrigation service areas in the counties identified in the plan area. Additional groundwater pumping could require additional electrical use. Electric pumps are assumed as the flow requirements would be a long-range planning effort and, therefore, groundwater wells would likely be used continuously in the plan area if needed to replace a reduction in surface water diversions and would be expected to be electric. As discussed above, additional energy would either come from a renewable or nonrenewable energy source that is already permitted, and thus no new operational air quality emissions would be expected.

Furthermore, a project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in the applicable air quality plan, which, in turn, would generate emissions not accounted for in the applicable air quality plan emissions budget. Therefore, projects are evaluated to determine whether they would generate population and employment growth and, if so, whether that growth and associated emissions would exceed those included in the relevant air plans. It is not expected that the flow requirements would result in population or employment growth that would result in a conflict with or obstruct implementation of the applicable air quality plan because they would not require activities that are associated with population growth (e.g., housing development, business centers, etc.). Consequently, impacts would be less than significant.

Southern Delta Water Quality: The existing salinity of the southern Delta would remain within the general historical range of salinity under the water quality objectives. This is because the salinity objective at Vernalis would continue to be met. Water quality objectives would not result in emissions of criteria pollutants. Furthermore, a project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in the applicable air quality plan, which, in turn, would generate emissions not accounted for in the applicable air quality plan emissions budget. Therefore, projects are evaluated to determine whether they would generate population and

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

employment growth and, if so, whether that growth and associated emissions would exceed those included in the relevant air plans. It is not expected that the water quality requirements would result in population or employment growth that would result in a conflict with or obstruct implementation of the applicable air quality plan because they would not require activities that are associated with population growth (e.g., housing development, business centers, etc.). Therefore, there would be no impacts.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	❒	❒	☑	❒

Discussion

Flow and Southern Delta Water Quality: As indicated above in Threshold III(a), impacts would be less than significant. Consequently, air quality impacts would be similar to baseline in the SJVAB and the MCAB. Impacts would be less than significant.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	❒	❒	☑	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives would not result in a cumulatively considerable net increase of any criteria pollutant because they would not result in new air pollutant emissions. Decreased surface water diversions associated with an increase in river flow has the potential to result in decreased water available for agricultural irrigation, potentially resulting in a reduction of acres in active agricultural production. Active agricultural production is a major source of fugitive dust emissions due to soil disturbance associated with soil tillage and the harvesting of crops. The use of off-road agricultural equipment associated with agricultural activities (e.g., soil tillage, crop harvesting, and pesticide and herbicide application) would also generate large quantities of criteria pollutant exhaust emissions because the equipment is often diesel powered. The agricultural activity of controlled burning of agricultural field wastes also creates smoke emissions.

It is anticipated some croplands could be removed from active agricultural production and could be fallowed in perpetuity because of the reduced availability of irrigation water. Removal of active cropland is expected to result in a beneficial impact on air quality (i.e., reduced smoke, fugitive dust, and equipment exhaust emissions) associated with the ceasing of controlled field burning, soil tilling, crop harvesting, and herbicide/pesticide application. The fallowed lands would be expected to retain crop stubble cover and would ultimately experience vegetative regrowth. This regrowth would serve to reduce the potential for fugitive dust emissions associated with the fallowed land. In the event that croplands were left unvegetated, fugitive dust emissions could increase from wind-blown dust. Any potential fugitive dust emissions associated with land fallowing would be a temporary and limited occurrence, as barren fallowed lands would regain vegetative growth, thereby limiting the potential for long-term fugitive dust emissions from the fallowed land surface. Active agricultural activities and associated emissions occur on a permanent basis, as crop burning, soil tillage, crop harvesting, and pesticide and herbicide application occur seasonally, depending on the type of crop, over the long-term lifespan of the cropland. Therefore, it is anticipated that the benefits associated with limited potential fugitive dust emissions associated with agricultural land fallowing would more than offset any potential long-term emissions associated with active agricultural activities. Consequently, impacts would be less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations?	❒	❒	☑	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow and Southern Delta Water Quality: As described above under Threshold III(a), the flow requirements or water quality objectives would not result in a net increase in air pollutant emissions. Consequently, sensitive receptors would not be exposed to substantial pollutant concentrations. Impacts would be less than significant.

e) Create objectionable odors affecting a substantial number of people?	❒	❒	☑	❒

Discussion

Flow and Southern Delta Water Quality: As described above under Threshold III (a), impacts would be less than significant; consequently, the flow requirements or water quality objectives would not create objectionable odors affecting a substantial number of people, and impacts would be less than significant.

IV. BIOLOGICAL RESOURCES –

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☑	❒	❒	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☑	❒	❒	❒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☑	❒	❒	❒
d) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☑	❒	❒	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☑	❒	❒	❒

Discussion of a, b, c, d, and e:

Flow and Southern Delta Water Quality: Potential impacts on aquatic biological resources and terrestrial biological resources for Thresholds IV(a) through (e) associated with flow requirements or water quality objectives are considered potentially significant and are addressed in SED Chapters 7, *Aquatic Resources*, and 8, *Terrestrial Biological Resources*.

f) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	❒	❒	☑	❒

Discussion

Flow: In *California Wildlife: Conservation Challenges,* California's 2007 Wildlife Action Plan, the California Department of Fish and Game (DFG 2007) documents the significant habitat fragmentation and loss of wildlife corridors caused by land conversion for agricultural, residential, and urban land uses. However, alterations in hydrologic regime have not been implicated in this loss of habitat connectivity, and the subtle seasonal changes in hydrologic regime caused by implementation of the flow requirements are not expected to cause a significant change in habitat connectivity. The flow requirements would not result in the conversion of riparian habitat or other sensitive natural communities to land uses that would interfere with the movement of native resident or migratory species. The flow requirements would generally provide sufficient water for waterfowl in wildlife refuges and other waterbodies along the LSJR and the three eastside tributaries, which are stopovers on the Pacific Flyway. Therefore, impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Southern Delta Water Quality: The salinity in the southern Delta would remain within the baseline historical range of salinity levels under the water quality objectives and thus would not result in an interference of migration corridors. Therefore, impacts would be less than significant.

V. CULTURAL RESOURCES

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☑	❒	❒	❒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☑	❒	❒	❒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☑	❒	❒	❒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☑	❒	❒	❒

Discussion of a, b, c, and d

Flow: The flow requirements would change the volume of water within the three eastside tributaries, the reservoirs, and the LSJR. The flow requirements would generally increase the volume of water in the rivers, while the changes in flow may result in surface water elevation fluctuations at the reservoirs. If there is a high potential for historical, archeological, or paleontological resources or human remains to exist in the reservoirs or within or along the rivers, these resources could be affected by changes in river flow and reservoir surface water elevation fluctuations. Therefore, impacts would be potentially significant and are addressed in

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

SED Chapter 12.

Southern Delta Water Quality: The salinity in the southern Delta would remain within the general historical range of salinity under the water quality objectives because the water quality objective for salinity at Vernalis would continue to be met. The effect on water quality has no potential to impact the significant of historical, archaeological or paleontological resources or human remains in the southern Delta. Therefore, there would be no impacts on cultural resources under the water quality objectives.

VI. GEOLOGY AND SOILS

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	❒	❒	❒	☑
ii) Strong seismic ground shaking?	❒	❒	❒	☑
iii) Seismic-related ground failure, including liquefaction?	❒	❒	❒	☑
iv) Landslides?	❒	❒	❒	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives would either alter the volume of water within rivers or reservoirs in the plan area or maintain the historical range of water quality in the southern Delta. There are no impact mechanisms associated with these actions that could result in an impact on, or be affected by: Alquist-Priolo faults, strong seismic shaking, or seismic-related ground failure or landslides. Furthermore, altering the volume of water in a river would not substantially increase the number of people exposed to the risk of earthquakes or geologic hazards because it would not draw people to earthquake areas or geologic hazard locations not already frequented. Therefore, the flow requirements or water quality objectives would not have a substantial adverse effect on people or structures. There would be no impacts.

b) Result in substantial soil erosion or the loss of topsoil?	❒	❒	☑	❒

Discussion

Flow: The flow requirements could result in soil erosion along river banks. For the bank erosion impacts, see Threshold IX(c). Because new flow requirements could potentially reduce active agricultural acreage, indirect soil erosion could also result. Currently, there is active agriculture in all three watersheds and along the LSJR. While the level of connectivity of any specific active agricultural acreage to local drainages (i.e., the ability of loose soil to be delivered to a stream) is unknown, soil disturbance associated with active agriculture practices and irrigation practices currently results in disturbance of topsoil and leads to soil erosion in the area. It is speculative to determine what possible other land uses might occur should a reduction in agricultural land occur as a result of the new flow requirements. However, if it is assumed the land would remain generally fallow, reducing existing levels of soil disturbance associated with active agricultural practices and irrigation. Thus, the potential for soil erosion and sediment delivery to streams would be reduced overall. Therefore, impacts would be less than significant.

Southern Delta Water Quality: The water quality objectives would maintain the general historical range of salinity in the southern Delta and would not erode soil or loose topsoil. Therefore, impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: See Threshold IV (a) as impacts would be similar. The flow requirements or water quality objectives would not be located on a geologic unit or soil that is unstable or would become unstable. Therefore, there would be no impacts.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: See Threshold IV(a), as impacts would be similar. The flow requirements or water quality objectives would not result in an impact on, or be affected by, expansive soils. Accordingly, the flow requirements or water quality objectives would not create substantial risks to life or property as a result of expansive soil. Therefore, there would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: See Threshold IV(a) as impacts would be similar. The flow requirements or water quality objectives would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impacts.

VII. GREENHOUSE GAS EMISSIONS

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☑	❒	❒	❒

Discussion

Flow: The flow requirements have the potential to change flows on existing rivers that generate hydroelectric power. The flow requirements may reduce surface water diversions or may increase exports. A potential change in hydroelectric power generation, change in surface water diversions, or a potential increase in exports could result in a change to existing greenhouse gas generation. As discussed above in Section III, existing regulations for emitting criteria pollutants requires offsetting emissions based on the permit of the emitting source. However, greenhouse gases are not managed or regulated in this manner in California. Therefore, impacts would be potentially significant and are addressed in SED Chapter 14, *Energy Resources and Climate Change*.

Southern Delta Water Quality: The general historical range of salinity in the southern Delta would remain unchanged under the water quality objectives. It would not result in emitting greenhouse gas emissions. Therefore, impacts would not occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		❒	❒	❒

Discussion

Flow: See discussion in Section VIII(a), as impacts would be similar. Impacts would be potentially significant and are addressed in SED Chapter 14, *Energy Resources and Climate Change*.

Southern Delta Water Quality: See discussion in Section VIII(a), as impacts would be similar. Impacts would be less than significant.

VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: Hazardous materials are generally the raw materials for industrial or commercial products or processes that may be classified as toxic, flammable, corrosive, or reactive. The flow requirements or water quality objectives would not involve the transport, use, or disposal of hazardous materials. The flow requirements would change the volume of water within existing rivers and reservoirs. The water quality objectives for salinity would maintain the general historical range of salinity in the southern Delta. Neither of these actions involves hazardous materials. Therefore, there would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: See Threshold VIII(a) as impacts would be similar and would not occur.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: See Threshold VIII(a) as impacts would be similar and would not occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant	❒	❒	☑	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
hazard to the public or the environment?				

Discussion

Flow: A search was conducted to identify the presence of a Cortese Site (sites compiled as being hazardous materials sites under Government Code, § 65962) near the three eastside tributaries, LSJR, and three reservoirs using multi-agency maps, lists, and databases compiled into the EnviroStor online database (DTSC 2007). The table below lists active hazardous waste sites found within or nearby (within 250 feet) of the three eastside tributaries, LSJR, and reservoirs in the plan area. No active hazardous waste sites were found along the SJR or the Stanislaus or Merced Rivers, but two sites were found along the Tuolumne River (DTSC 2007). The flow requirements would not have the potential to modify these sites because the flows would not be outside the channel of the river. Furthermore, the flow requirements would not change the peak flow releases that result from reservoirs spilling. This is because the percent of unimpaired flow requirement would cease to apply during high flows or flooding to preserve public health and safety. The State Water Board would coordinate with federal, state, and local agencies to determine when it is appropriate to waive the requirements. The NOAA (National Oceanic and Atmospheric Administration) action stage of the rivers, or the point on a rising stream at which some type of mitigation action should be taken in preparation for possible significant hydrologic activity, is a reasonable proxy to describe when the unimpaired flow requirements might be waived as a result of public health and safety concerns. Therefore, the flow requirements would not create a significant hazard to the public or the environment and impacts would be less than significant.

Hazardous Waste Sites Found along the Tuolumne River (Upstream of the Confluence with the Lower San Joaquin River to New Don Pedro Reservoir)

Hazardous Site Name	Address/City	Site Status/Status Date	Distance from River (name River)
Modesto Disposal Services	2769 West Hatch Road	Refer: IWMB/2/17/2009	180 feet Tuolumne River
Moccasin Fish Hatchery	Hwy120 & Hwy 149	LUST Cleanup Site – Open – Site Assessment/4/17/2001	90 feet – New Don Pedro Reservoir

LUST = Leaking Underground Storage Tank

Southern Delta Water Quality: The salinity of the southern Delta would remain within the general historical range of salinity under the water quality objectives because the water quality objective for salinity at Vernalis would continue to be met. Water quality does not have the potential to affect a hazardous waste site. Therefore, there would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: The flow requirements would result in a change in volume of water in existing reservoirs and rivers. The water quality objectives would maintain the general historical range of salinity within in the southern Delta. Neither of these actions have the potential to result in an increased capacity at existing airports, a safety hazard to existing airports, or be in conflict with an airport land use plan. Therefore, there would be no impacts.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: As described in Threshold VIII(e), the flow requirements or water quality objectives do not involve elements that could increase air traffic volumes or cause a conflict with existing private airstrips. Therefore, neither of these plan amendments have the potential to result in a safety hazards to private airstrips. Therefore, there would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	❒	❒	☑	❒

Discussion

Flow: Under the National Dam Safety Program Act of 1996, dam owners are responsible for preparing and implementing emergency action plans (EAPs) for potential dam failures based on guidelines of the Federal Emergency Management Agency (FEMA) or the Federal Energy Regulatory Commission (FERC) for hydropower projects (FERC 2007). EAPs do the following: (1) specify preplanned actions to be taken by dam owners to moderate or alleviate problems at a dam, (2) contain procedures and information for issuing early warning and notification messages to responsible downstream emergency management authorities of an emergency situation, and (3) include inundation maps to show the emergency management authorities the critical areas that require action in case of an emergency. EAPs are periodically updated by dam owners based on changes, such as new contact personnel, and are required to be redistributed to all involved parties every 5 years. The flow requirements would shift the timing of reservoir operations (e.g., flows and storage levels), but the dams would continue to operate as they currently do and within their current design capabilities and specifications. Since the EAPs account for a wide variety of flow scenarios and are regularly updated, the flow requirements would not impair or physically interfere with these adopted emergency plans. Impacts would be less than significant.

Southern Delta Water Quality: The general historical salinity range in the southern Delta would be maintained under the water quality objectives because the water quality objective for the salinity objective at Vernalis would continue to be met. The salinity objective would not increase risks associated with emergency response or evacuation plans. Therefore, impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	❒	❒	☑	❒

Discussion

Flow and Southern Delta Water Quality: The flow requirements would result in a change in volume of water in existing reservoirs and rivers. The general historical salinity range in the southern Delta would be maintained under the water quality objectives because the water quality objective for salinity at Vernalis would continue to be met. The plan amendments would not involve the construction or operation of housing or the intermixing of residences with wildlands. The flow requirements may result in a change in the type of agricultural lands in the plan area as a result of potential modifications to surface water diversions, resulting in fewer acres irrigated. However, agricultural land is typically located in areas with few people or structures and therefore, it is not expected that this would result in an increase in exposure of people or structures to loss involving wildfires. Therefore, impacts would be less than significant. .

IX. HYDROLOGY AND WATER QUALITY

Would the project:

a) Violate any water quality standards or waste discharge requirements?	☑	❒	❒	❒

Discussion

Flow: The flow requirements would result in a change in the volume of water in existing reservoirs and rivers and would not result in a change to existing waste discharge requirements. The flow requirements could change the number of exceedances currently experienced at the interior southern Delta compliance stations. Potentially significant impacts are addressed in SED Chapter 5, *Water Supply, Surface Hydrology, and Water Quality*.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Southern Delta Water Quality: The water quality objectives would establish salinity levels to protect agricultural beneficial uses in the southern Delta. Therefore, the objectives would not violate a water quality standard or violate a wastewater discharge requirement. There would be no impacts.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☑	❒	❒	❒

Discussion

Flow: The flow requirements could reduce the amount of surface water diversions on the three eastside tributaries. This could result in a potential increase in groundwater use to offset the potential reduction in surface water diversions. Therefore, impacts would be potentially significant and are addressed in SED Chapter 9, *Groundwater Resources*.

Southern Delta Water Quality: Agricultural users in the southern Delta apply water to irrigate their crops. Some of the agricultural users apply additional water to reduce the salts in the root zone of the crops. However, this water comes primarily from surface water diversions (e.g., the southern Delta channels). Therefore, a change in groundwater pumping would not be expected because most of the irrigation water comes from surface water diversions. There would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or offsite?	☑	❒		❒

Discussion

Flow: The potential changes in flow conditions under flow requirements could alter the existing drainage patterns of the rivers, resulting in substantial erosion or siltation. Therefore, impacts would be potentially significant and are addressed in SED Chapter 6, *Flooding, Sediment, and Erosion*.

Southern Delta Water Quality: The salinity of the southern Delta would remain within the general historical range of salinity under the salinity objectives because the water quality objective for salinity at Vernalis would continue to be met. Maintaining water quality would not substantially alter the existing drainage pattern of a site or area. Therefore, there would be no impacts.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☑	❒	❒	❒

Discussion

Flow: The flow requirements could change the volume of water in existing reservoirs and rivers during different times of year, which could result in flooding. Therefore, impacts would be potentially significant and are addressed in SED Chapter 6, *Flooding, Sediment, and Erosion*.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Southern Delta Water Quality: The salinity of the southern Delta would remain within the general historical range of salinity under the water quality objectives because the water quality objective for salinity at Vernalis would continue to be met. Maintaining water quality would not substantially alter the volume of water in the southern Delta and thus would not result in an increase in flooding. Therefore, there would be no impacts.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	❒	❒	☑	❒

Discussion

Flow: The flow requirements could result in a change in the amount of surface water stored in the existing reservoirs or released to the rivers. However, the amount of stormwater generated, collected, or discharged to surface waters would remain the same as baseline. Furthermore, the flow requirements would not modify the existing stormwater collection system (e.g., storm sewers or detention basins). Therefore, impacts would be less than significant.

Southern Delta Water Quality: The salinity of the southern Delta would remain within the general historical range of salinity under the water quality objectives because the water quality objective for salinity at Vernalis would continue to be met. Furthermore, agricultural users are expected to continue using surface water sources to irrigate agricultural crops. Thus, the water quality objectives would not create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial sources of polluted runoff. Therefore, impacts would be less than significant.

f) Otherwise substantially degrade water quality?	☑	❒	❒	❒

Discussion

Flow and Southern Delta Water Quality: Degradation to water quality as a result of the flow requirements or water quality objectives is also discussed in IX(a). Therefore, impacts would be potentially significant and is addressed in SED Chapter 5, *Water Supply, Surface Hydrology, and Water Quality*.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives would not result in the development of housing. Therefore, there would be no impacts.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives would not result in the development of structures. Therefore, there would be no impacts.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	❒	❒	☑	❒

Discussion

Flow: As discussed in VIII(g), the dams would continue to operate as they currently do and within their current design capabilities and specifications. The flow requirements would shift the timing of reservoir operations (e.g., flows and storage levels), but the same flood control curves and daily operations would be used for actual operations of the three reservoirs under the flow requirements as under the baseline. Although the monthly reservoir operations during the February–June period would be slightly different under the flow requirements, the same end-of-month flood-control storage space would be maintained and the same daily flood-

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

control releases would be made during major rainfall runoff events, with the same downstream maximum flood-control releases. Because the reservoir storages would often be at the monthly flood control levels in many of the years, the same monthly releases would be made. Some of the LSJR alternatives would release more water than the baseline, and the storage would be reduced so that flood-control releases would be delayed and/or reduced. The daily releases could vary under the flow requirements, but the maximum flood-control release would not be increased. Therefore, periodic high flood flows during major storms on each of the three eastside tributaries would be nearly the same as the flood-control releases under baseline. In addition, the flow requirements would cease to apply during high flows or flooding to preserve public health and safety. The State Water Board would coordinate with federal, state, and local agencies to determine when it is appropriate to waive the requirements. The NOAA (National Oceanic and Atmospheric Administration) action stage of the rivers, or the point on a rising stream at which some type of mitigation action should be taken in preparation for possible significant hydrologic activity, is a reasonable proxy to describe when the unimpaired flow requirements might be waived as a result of public health and safety concerns. Therefore, impacts would be less than significant. However, flooding with respect to river levees and downstream river channel capacities is addressed in SED Chapter 6, *Flooding, Sediment, and Erosion*.

Southern Delta Water Quality: As discussed in IX(d), the water quality objectives would not result in flooding. Therefore, there would be no impacts.

j) Inundation by seiche, tsunami, or mudflow	❒	❒	☑	❒

Discussion

Flow: The plan area is located inland and not along the coast; therefore, it is not susceptible to tsunamis or inundation by tsunamis. A seiche is typically associated with water movement in lakes or reservoirs being caused by ground movement generated by meteorological effects (e.g., wind) or earthquakes. Currently, the existing reservoirs are susceptible to seiches. The flow requirements would not increase the risk of seiches at the three reservoirs. Therefore, there would be no impacts. Mudflows generally occur in areas that have a steep relief with little vegetation and are generally caused by instances of high precipitation over short or long periods of time. Currently, the areas with steep slopes and little vegetation that experience heavy precipitation events within the watersheds of the plan area are already susceptible to mudflows. The flow requirements would not increase the risk of mudflows in these areas. Finally, the flow requirements would not result in bringing people to an area susceptible to seiches, tsunamis, or mudflows; people would not congregate or be located in an area exposed to these risks because of the new flow requirements. Therefore, impacts would be less than significant.

Southern Delta Water Quality: The salinity of the southern Delta would remain within the general historical range of salinity under the water quality objectives because the water quality objectives at Vernalis would continue to be met. Water quality does not affect, nor is it affected by, a seiche, tsunami, or mudflow. Therefore, there would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING				
Would the project:				
a) Physically divide an established community?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: The new flow requirements or water quality objectives could result in a change in the volume of water within existing reservoirs or rivers or a change in the chemical properties of existing water quality. Neither of these two changes would physically divide an established community. Therefore, there would be no impacts.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	❒	❒	☑	❒

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Local agencies in California have primary responsibility for land use control and regulation within their areas of jurisdiction and, to a lesser extent, for areas within their "spheres of influence." State planning and zoning law requires all California counties and incorporated cities to prepare, adopt, and implement a comprehensive general plan to guide the community's growth and development. A general plan is a community's basic vision and "blueprint" for the future and typically provides policies in many areas pertaining to conservation and development. Under state planning law, a general plan is required to contain seven elements: land use, open space, transportation/circulation, housing, safety, noise, and conservation. A general plan may also include optional elements at the discretion of the local agency, such as an agricultural element or a recreation element.

The general plan is commonly implemented through zoning and other local land use and development ordinances that must be consistent with the general plan. In reviewing and making decisions on applications for various land use entitlements and development projects, the local agency must typically make findings that the proposed activity (e.g., a conditional use permit or a subdivision of real property) is consistent with the applicable general plan. If the decision is discretionary and the project could have an effect on the physical environment, then the county or city is also obligated to comply with the procedural and documentation requirements of CEQA. Among other considerations for analyzing the potential effects of projects on water resources, CEQA requires agencies to evaluate the potential effects of large projects on public water systems, in coordination with the water agency, to ensure that sufficient water supply is available before approving large subdivisions, commercial office buildings, industrial parks, and similar projects.

Flow: State proponents and decision makers are not required to comply with county and city general plans and policies. Potential inconsistencies with such local plans and policies, and particularly those not binding on the state government, do not necessarily translate into an adverse environmental effect under CEQA. Furthermore, the mere fact of inconsistency is not by itself an adverse effect on the environment. The flow requirements could result in a change in the volume of water within existing reservoirs or rivers. This does not have the ability to conflict with applicable land use plans, policies, or regulations. The flow requirements could result in physical environmental effects associated with reducing surface water diversions to agricultural land. As discussed in Thresholds II (a) through (d), some agricultural land could go fallow as a result of the flow requirements and reduction of surface water diversions. Counties and cities in the plan area have general plans stipulating goals and policies associated with agricultural land. For example, the General Plans of Madera County (Madera County 1985), Merced County (Merced County 2000), San Joaquin County (San Joaquin County 2010), and Stanislaus County (Stanislaus County 2000) all have agricultural land policies in support of maintaining agricultural production. This support includes efforts to protect lands used for irrigated agriculture from being converted to nonagricultural purposes, improve irrigation performance and water conservation, and protect water quality for both supply to agriculture and discharge from agriculture. The table provides a summary of goals/objectives and policies/objectives related to agricultural activities.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Summary of County General Plan Policies Related to Agriculture

County	Goals/Objectives	Policies/Objectives
Madera	Goal 5.A.To designate adequate agricultural land and promote development of agricultural uses to support the continued viability of Madera County's agricultural economy.	5.A.6. The County shall encourage continued and, where possible, increased agricultural activities on lands designated for agricultural uses.
Merced	Goal 2: Productive agricultural lands are conserved.	Objective 2. A.: Agricultural areas are protected from conversion to nonagricultural uses.
	Goal 4: The management of water resources to benefit the agricultural community is improved.	Objective 4. A.: Measures to protect and improve water quality are supported.
Stanislaus	Goal 1: Strengthen the agricultural sector of the economy.	None.
	Goal 2: Conserve our agricultural lands for agricultural uses.	Objective 2.1 Continued participation in the Williamson Act.
		Objective 2.4 Assessing and mitigating impacts of farmland conversion.
San Joaquin	Objective 1: To protect agricultural lands needed for the continuation of commercial agricultural enterprises, small-scale farming operations and the preservation of open space.	Policy 1: Established agricultural land use categories promote a range of agricultural activities and preserve open space (e.g., general agriculture, limited agriculture, and agriculture-urban reserve).
	Objective 3: To minimize the impact on agriculture in the transition of agricultural areas to urban development.	

However, these cities and counties do not have jurisdiction over the flow requirements. Furthermore, the flow requirements do not incorporate general plan amendments or zone changes to convert currently designated or zoned agricultural land to other uses. Therefore, a conflict would not occur if agricultural land is fallowed as a result of the flow requirements because the land would still exist as designated agricultural land. Although the flow requirements could result in physical constraints on agricultural production and may limit it in some cases, the flow requirements would not conflict with any land use plan or policy. Physical environmental impacts, such as the physical reduction of agricultural land, are discussed above under Threshold II(a) and the other respective resource thresholds as relevant. Therefore, impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Southern Delta Water Quality: The water quality objectives do not include general plan amendments or zone changes and would not result in changes to existing land designations or zoning. Therefore, impacts would not occur.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☑	❒	❒	❒

Discussion

Flow and Southern Delta Water Quality: See Threshold IV(d) for a discussion of the flow requirements and water quality objectives. This impact would be potentially significant and is addressed in SED Chapters 7, *Aquatic Resources*, and 8, *Terrestrial Biological Resources*.

XI. MINERAL RESOURCES

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	❒	❒	☑	❒

Discussion

Flow: Mineral resource recovery sites exist on the rivers in the plan area downstream of the rim dams. The flow requirements may affect when existing mineral resources can be accessed, though the flows would not eliminate the availability of those known mineral resources that would be of value to the region, the residents of the state, or are identified in a general plan as locally important. Furthermore, a mineral resource recovery site already on the river experiences high peak flows, and the peak flows under the flow requirements would be similar to existing high peak flows. Thus, a change to the timing and frequency of higher flow events would not restrict the availability of a known mineral resource. Impacts would be less than significant.

Southern Delta Water Quality: The water quality objectives would maintain the general historical range of salinity in the southern Delta. To maintain this salinity range, there would be no activities that would result in the loss of availability of a mineral resource. Therefore, there would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	❒	❒	☑	❒

Discussion

Flow and Southern Delta Water Quality: See Threshold XI(a) as impacts would be similar. Therefore, impacts would be less than significant.

XII. NOISE

Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	❒	❒	☑	❒

Discussion

Flow and Southern Delta Water Quality: The flow requirements would result in a change in volume of water in existing reservoirs and rivers. The water quality objectives would maintain the general historical range of salinity in the southern Delta. Neither plan amendments would generate noise. Therefore, they do not have the potential to expose people to noise levels in excess of existing noise standards. Thus, impacts would be less than significant.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	❒	❒	❒	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow and Southern Delta Water Quality: Groundborne vibrations or groundborne noise levels are typical of large construction projects or heavy industrial activities. The flow requirements and water quality objectives would not expose people to groundborne vibrations or groundborne noise. Thus, there would be no impacts.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	❒	❒	☑	❒

Discussion

Flow and Southern Delta Water Quality: See Threshold XII(a) for a discussion as impacts would be similar. Impacts would be less than significant.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	❒	❒	☑	❒

Discussion

Flow and Southern Delta Water Quality: See Threshold XII(a) and XII(b) for a discussion as impacts would be similar. Impacts would be less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people	❒	❒	❒	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
residing or working in the project area to excessive noise levels?				

Discussion

Flow and Southern Delta Water Quality: See Threshold XII(a) and Thresholds VIII(e) and VIII(f) for a discussion as impacts would be similar. Impacts would not occur.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: See Threshold XII(e) for a discussion as impacts would be similar. Impacts would not occur.

XIII. POPULATION AND HOUSING

Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	❒	❒	☑	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow and Southern Delta Water Quality: The flow requirements or salinity objectives would not involve the construction of new homes or businesses that may induce substantial property growth in an area. Furthermore, the flow requirements or salinity objectives would not develop any amenities (e.g., malls, amusement parks, hotels) that would attract people to the plan area. Therefore, impacts would be less than significant. However, growth-inducing effects are discussed in SED Chapter 16, *Growth-Inducing Effects and Irreversible Commitment of Resources*, and economic effects are addressed in SED Chapter 18, *Economic Analysis*.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	❒	❒	☑	❒

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives would change the volume of water or maintain the existing historical range of salinity, neither of which would involve displacement of a substantial number of housing units or disrupt or divide an established community and necessitating the construction of replacement housing elsewhere. As discussed in Section IX(i), the percent of unimpaired flow requirement would cease to apply during high flows or flooding to preserve public health and safety. The dams would continue to operate as they currently do and within their current design capabilities and specifications. The flow requirements would shift the timing of reservoir operations (e.g., flows and storage levels), but the same flood control curves and daily operations would be used for actual operations of the three reservoirs under the flow requirements as under the baseline. Therefore, flood releases from the three reservoirs would continue as they currently do and would not increase the flood risk that may cause housing displacement. Impacts would be less than significant.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	❒	❒	☑	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow and Southern Delta Water Quality: See Threshold XIII(a) for a discussion as impacts are similar. Therefore, impacts would be less than significant.

XIV. PUBLIC SERVICES

Would the project:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of these public services:

Fire protection?	❒	❒	❒	☑
Police protection?	❒	❒	❒	☑
Schools?	❒	❒	❒	☑
Parks?	❒	❒	❒	☑
Other public facilities?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: An increase use of public services is generally associated with an increase in population. As a location's population increases, the need for additional or new public services and public service facilities generally increases. The flow requirements would result in a change in volume of water in existing reservoirs and rivers. The water quality objectives would maintain the general historical range of salinity in the southern Delta. The plan amendments would not include new structures, such as housing or businesses, or indirectly increase housing or businesses, and therefore would not result in an increase in population needing new or additional fire, police, or other public facilities. In addition, because the plan amendments do not include proposals for new housing, they would not generate students or increase demands for school services or facilities. Parks and other recreational facilities are discussed in XV(a) and (b). The plan amendments would not generate increased demands for other public services, such as public transportation, hospitals, libraries, and waste management. There would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION				
Would the project:				
a) 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?	☑	❒	❒	❒

Discussion

Flow: The potential changes in flow conditions may result in reservoir drawdown, which may in turn result in decreased recreational opportunities on the reservoirs, such as boating, fishing, and swimming. Recreationists may also experience a substantial degradation of visual character and quality associated with the three reservoirs. In addition, recreational boating, which currently takes place on existing reservoirs and rivers, may be affected such that boating activities move to other areas. Therefore, impacts would be potentially significant and are addressed in SED Chapter 10, *Recreational Resources and Visual Quality*.

Southern Delta Water Quality: The water quality objectives would maintain the general historical range of salinity of the southern Delta. Any existing fluctuations of salinity that would continue under the water quality objectives would be imperceptible to recreationalists who are using the southern Delta for on-water activities, such as boating or kayaking. Water quality would not physically deteriorate existing recreational facilities. Therefore, there would be no impacts.

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	❒	❒	☑	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow: The flow requirements would not include the development or operation of recreational facilities. An expansion of recreational facilities is typically associated with a substantial increase in the population to accommodate new recreationists. The flow requirements would not result in substantial increase in population because they would not result in the development of housing or other population-inducing development (e.g., job centers) in the plan area. Therefore, the flow requirements are not expected to increase the population such that there would be an expansion of recreational facilities. Impacts would be less than significant.

Southern Delta Water Quality: See XV(a) for discussion as impacts would be similar. There would be no impacts.

XVI. TRANSPORTATION/TRAFFIC

Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	❒	❒	❒	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow and Southern Delta Water Quality: The construction or operation of facilities that require use by people, such as commercial buildings, residential housing, military facilities, and industrial facilities, can result in increased use of the transportation system and thus produce traffic. The flow requirements or water quality objectives would not require new construction or the operation of facilities that require use by people. Furthermore, a change in the volume of water or maintaining the historical range of salinity in the southern Delta would not result in additional transit trips and thus would not produce traffic. Therefore, there would be no impacts.

b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: As discussed in Threshold VIII(a), the flow requirements or water quality objectives would neither involve an increased use of the transportation system nor increase traffic conditions, and thus would not conflict with an applicable congestion management program. Therefore, there would be no impacts.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which results in substantial safety risks?	❒	❒	❒	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow and Southern Delta Water Quality: The construction or operation of facilities that require use by people, such as commercial buildings, residential housing, military facilities, and industrial facilities, can result in an increased need for air travel and thus affect air traffic patterns. Flow requirements and or water quality objectives would not involve new construction or operation of facilities used by people, and thus would not result in increased use of air transportation services, such as airplanes or helicopters. Furthermore, a change in the volume of water or maintaining the general historical range of salinity in the southern Delta would not result in additional plane trips and thus would not generate increased air traffic. Therefore, there would be no impacts.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: The construction or operation of infrastructure, such as roads or buildings, may result in increased hazards due to a design feature (e.g., sharp curve in the road) or incompatible use (e.g., use of roads by slow moving farm equipment). The flow requirements or water quality objectives would not involve the construction or operation of new roads and thus would not result in hazards associated with design features or incompatible uses. Therefore, there would be no impacts.

e) Result in inadequate emergency access?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: Typically during construction projects, roads are blocked or altered, which can impede emergency access and result in inadequate emergency access. The flow requirements or water quality objectives would not involve construction and thus would not block or alter roads or open space that would be used for emergency access. Therefore, there would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: See Threshold XVI(a) as impacts would be similar. Therefore, there would be no impacts.

XVII. UTILITIES AND SERVICE SYSTEMS

Would the project:

a) Exceed wastewater treatment requirements of the applicable regional water quality control board?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: The flow requirements and water quality objectives are not subject to wastewater treatment requirements. Therefore, they would not exceed applicable wastewater treatment requirements. There would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☑	❒	❒	❒

Discussion

Flow: The flow requirements could result in a change in the volume of water in existing reservoirs or rivers in the plan area. A potential change in volume would not affect existing wastewater treatment facilities located along any of the existing rivers. However, the flow requirements could result in the need for new water facilities if surface water diversions to municipalities or irrigation districts are reduced. Therefore, the possible need to upgrade or expand water facilities and the potentially significant environmental effects of doing so are addressed in SED Chapter 13, *Service Providers*.

Southern Delta Water Quality: The Central Valley Regional Water Quality Control Board could modify National Pollution Discharge Elimination system permits they use to regulate wastewater treatment plant(s) point-source discharges to the southern Delta. A change to these permits could result in the need to upgrade or expand existing wastewater treatment plants, which could have potentially significant environmental effects. This possible permit change and its potential environmental effects are addressed in SED Chapter 13, *Service Providers*.

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❒	❒	☑	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

See IX(e) for discussion regarding stormwater drainage facilities as impacts would be similar. Therefore, impacts would be less than significant.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☑	❒	❒	❒

Discussion

Flow: The flow requirements do not influence or change the demand for water. The flow requirements would require additional water to support and maintain the beneficial use of fisheries in the plan area. Therefore, impacts would be less than significant. However, as water supply relates to Threshold IX(b) above, impacts will be addressed in SED Chapter 13, *Service Providers*, and SED Chapter 5, *Water Supply, Surface Hydrology, and Water Quality*.

Southern Delta Water Quality: The water quality objectives do not require additional flows to not be diverted in order to meet the water quality objectives. Therefore, they would not involve water quantity. The requirement to comply with the Vernalis water quality objective for salinity is included in the baseline; therefore, the salinity objectives for Vernalis would have no effect on water supplies upstream of Vernalis. Impacts would be less than significant.

e) Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	❒	❒	❒	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives would not generate wastewater beyond that which is currently generated under baseline. Therefore, the flow requirements or water quality objectives have no ability to affect the capacity of existing wastewater treatment facilities. There would be no impacts.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: The flow requirements could change the volume of water within existing reservoirs and rivers in the plan area. This activity would not generate solid waste. The salinity objectives would maintain the general historical range of salinity in the southern Delta and would not generate solid waste. Therefore, there would be no impacts.

g) Comply with federal, state, and local statutes and regulations related to solid waste?	❒	❒	❒	☑

Discussion

Flow and Southern Delta Water Quality: See XVII(f) for a discussion as impacts would be similar. There would be no impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☑	❒	❒	❒

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives have the potential to degrade the quality of the environment. Therefore, impacts would be potentially significant and this is addressed in SED Chapters 5 through 16.

b) Does the project have environmental effects which will cause substantial effects on human beings, either directly or indirectly?	☑	❒	❒	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives have the potential to result in some substantial effects on human beings as described above in the various resource sections where potentially significant effects have been identified, and these are addressed in SED Chapters 5 through 18.

c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☑	❒	❒	❒

Discussion

Flow and Southern Delta Water Quality: The flow requirements or water quality objectives have the potential to result in cumulatively considerable effects. Therefore, cumulative effects are addressed in SED Chapters 5 through 16.

Note: Authority cited: Sections 21083 and 21087

Public Resources Code. Reference: Sections 21080(c), 21080.1, 21080.3, 21082.1

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