

# Attachment 1

## DRAFT CEQA Findings and Statement of Overriding Considerations Prepared for Amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

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### Introduction

The California Environmental Quality Act (CEQA, Pub. Resources Code, § 21000 et seq.) and the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.) require that a public agency consider the environmental impacts of a project before approving a project and make specific findings for identified significant environmental effects. (Pub. Resources Code, § 21081; Cal. Code Regs., tit. 14, § 15091.) This document includes the State Water Resources Control Board's (State Water Board) findings for each of the significant environmental effects identified in the Final Substitute Environmental Document (Final SED). This document also provides a Statement of Overriding Considerations (Statement), which is the rationale in support of the State Water Board's determination that the benefits of the project outweigh its unavoidable significant environmental effects (Cal. Code of Regs., tit. 23, § 3779.5, subd. (c); Pub. Resources Code § 21081, Cal. Code of Regs., tit. 14, §§ 15091, 15093).

The project is the adoption of amendments to the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (2006 Bay-Delta Plan) set forth in Appendix K, *Revised Water Quality Control Plan*, of the Final SED (Plan Amendments). The alternatives discussed in these findings are described in Chapter 3, *Alternatives Description*, of the Final SED.

As described in these Findings and Statement, the Plan Amendments would help address the ecological crisis in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta) and tributary watersheds where native fish face a high risk of extinction because too much water is being diverted. The Plan Amendments would provide increased flows critical to reasonably protecting native fish and restoring ecosystem functions, thus preventing further ecological collapse of Bay-Delta fisheries. The Plan Amendments would also update requirements for agricultural beneficial uses in the southern Delta.

In conducting its environmental analysis of the Plan Amendments, the State Water Board looked beyond what impacts could be attributable to the physical increase in instream flow (e.g., changes in reservoir levels) and also considered how people might respond to the Plan Amendments (e.g., pumping more groundwater if they

receive less surface water) or to comply with the Plan Amendments (e.g., constructing water supply or treatment facilities).

The potential actions that could be taken by people in response to the Plan Amendments or to comply with the Plan Amendments account for the majority of the potentially adverse environmental impacts that the State Water Board finds significant. These adverse environmental impacts are also mostly unavoidable, in that although impacts may be avoided or reduced, the State Water Board cannot guarantee that they will. The decisions of other entities could mitigate the impacts (such as local public agencies restricting groundwater pumping, requiring agricultural water use efficiencies that would allow less water to irrigate more acreage, denying permits to convert agricultural land to urban uses, or requiring mitigation measures for construction impacts). The State Water Board cannot assume that those other entities will require mitigation, however, and whether or not the State Water Board can use its authorities to compel actions that would mitigate potential impacts would be fact-specific. For example, the Sustainable Groundwater Management Act (SGMA) requires that groundwater basins in the area of the Plan Amendments be managed to avoid over-extraction, but that Act has not been fully implemented yet. The State Water Board has a role in enforcing SGMA, but that role is triggered after certain deadlines that have not been reached yet. This tension between the actions people might take in response to, or to comply with, the Plan Amendments, and the actions that local water districts and suppliers, regional groundwater agencies, irrigation districts, and local agencies and governments could take to mitigate the adverse environmental impacts of that response or compliance, but that the State Water Board cannot assume they will take, is explained in each of the findings as the reason that the impacts are significant and unavoidable.

The Statement explains why the State Water Board is justified in taking an action to reasonably protect fish and wildlife beneficial uses even if the State Water Board cannot, including for the reasons explained above, avoid the impacts or mitigate the impacts to a less than significant level.

## Findings

The State Water Board's water quality control planning program is certified by the Secretary of Resources as exempt from the requirement to prepare an environmental impact report (EIR) because the program requires written documentation meeting certain CEQA requirements (Pub. Resources Code, § 21080.5; Cal. Code Regs., tit. 14, § 15251, subd. (g)). The regulations implementing the State Water Board's exempt regulatory program require that any water quality control plan proposed for State Water Board approval must also contain findings as described in State CEQA Guidelines section 15091. (Cal. Code of Regs., tit. 23, § 3779.5, subd. (c).) State CEQA Guidelines section 15091 states, in part:

(a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effect of the project unless the public agency makes one or more written finding for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

- (1) Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
- (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The findings required by subsection (a) shall be supported by substantial evidence in the record.

The Final SED is available at the following location:

Division of Water Rights Records Unit  
State Water Resources Control Board  
California Environmental Protection Agency  
1001 1 Street, 2<sup>nd</sup> Floor  
Sacramento, CA 95814

Mr. Robert LaCasse, Staff Services Manager I, is the custodian and he may be contacted at (916) 319-0731.

In accordance with State CEQA Guidelines section 15091, the State Water Board has made findings for each significant environmental effect of the project accompanied by a brief rationale for each finding. The findings described below are organized by resource issue. The findings reference the Final SED and the mitigation measures discussed in the Final SED. References to findings (a)(1), (a)(2), and (a)(3) below refer to the required findings in Public Resources Code section 21081 and State CEQA Guidelines section 15091. Where project-specific changes and mitigation measures are within the responsibility and jurisdiction of another public agency and not the State Water Board, finding (a)(2) is made below. Finding (a)(3) is also made as it is infeasible for the State Water Board to impose the project-specific mitigation measures for future projects that are within the responsibility and jurisdiction of another public agency. Some of the actions people might take in response to, or to comply with, the Plan Amendments may not be

subject to discretionary approval and therefore some of the mitigation measures identified in the Final SED may not be implemented.

## Resource Findings

As described in Chapter 4, *Introduction to Analysis*, the Final SED evaluates the potentially significant environmental impacts associated with the Lower San Joaquin River (LSJR) and southern Delta Water Quality (SDWQ) alternatives. The alternatives are described in Chapter 3, *Alternatives Description*. The Plan Amendments are analyzed in the Final SED as LSJR Alternative 3 with adaptive implementation and SDWQ Alternative 2. In addition to the LSJR and SDWQ alternatives, the Final SED analyzes LSJR Alternative 1 and SDWQ Alternative 1, the No Project Alternative. The assessment of environmental effects was conducted at a programmatic level, which is a broader level than a project-specific analysis. The State Water Board's adoption of amendments to the 2006 Bay-Delta Plan will not result in direct physical changes in the environment. Rather, it is through the implementation of the Bay-Delta Plan that physical changes in the environment potentially may occur. Accordingly, all potential environmental effects evaluated in this SED are indirect effects associated with implementation, which would occur later in time and would in most cases be subject to project-specific environmental review, in compliance with CEQA.

As summarized in Chapter 18, *Summary of Impacts and Comparison of Alternatives*, significant and unavoidable impacts on different resources would occur. These impacts may be attributed to indirect actions, non-flow measures, or methods of compliance. The indirect actions include those that the regulated community could take to reduce potential reservoir or water supply effects associated with implementing the Plan Amendments' flow objectives or that would inform the body of scientific information potentially used to make adaptive implementation decisions. Similarly, for the Plan Amendments' salinity water quality objective, agencies or entities could undertake different methods of compliance. The combination of the different types of indirect actions, non-flow measures, or methods of compliance that entities could take in response the plan amendments is unknown. While entities could take one or more of these actions, the combination of actions taken is speculative and cannot be predicted under each alternative. However, as disclosed in the Final SED, primarily in Chapter 16, *Evaluation of Other Indirect and Additional Actions*, and summarized in Chapter 18, significant impacts on environmental resources would occur.

The Final SED provides several summaries regarding significant and unavoidable impact determinations after incorporation of mitigation measures and a summary of mitigation measures in various locations throughout the document. These locations are listed below. These locations are referenced, where appropriate, in the findings and explanations contained within this attachment.

- Table ES-20, *Summary of CEQA Significance Determinations in Chapters 5–15, Plan Area*, summarizes those impacts under each alternative evaluated in the Final SED determined to be significant and unavoidable after the evaluation of potential mitigation measures in the plan area.
- Table ES-21, *Summary of CEQA Significance Determinations in Chapters 5–14, Extended Plan Area*, summarizes those impacts under each alternative evaluated in the Final SED determined to be significant and unavoidable after the evaluation of potential mitigation measures in the extended plan area.
- Table ES-22 and Table 18-6, *CEQA Significance Summary of LSJR Alternatives—Other Indirect Actions*, summarizes those impacts under different indirect actions (e.g., construction or operation of new surface water reservoirs) evaluated in the Final SED determined to be significant and unavoidable after the evaluation of potential mitigation measures.
- Table ES-23 and Table 18-7, *CEQA Significance Summary of LSJR Alternatives Non-Flow Measures*, summarizes those impacts under different non-flow measures (e.g., construction or operation of gravel augmentation) evaluated in the Final SED determined to be significant and unavoidable after the evaluation of potential mitigation measures.
- Table ES-24 and Table 18-8, *CEQA Significance Summary SDWQ Alternatives-Methods of Compliance*, summarizes those impacts under different methods of compliance (e.g., construction or operation desalination at wastewater treatment plants) evaluated in the Final SED determined to be significant and unavoidable after the evaluation of potential mitigation measures.
- Table ES-29 and Table 18-4, *Impact Determinations Identified in Chapters 5–15*, summarizes impact determinations and mitigation measures under different alternatives evaluated in the Final SED.
- All summary tables at the beginning of Chapters 5–15 (e.g., Table 5-1, *Summary of Impact Determinations*) identify the impact determinations as identified in the Final SED for a particular resource before and after potential mitigation.
- Table 18-1, *Summary of CEQA Significance Determinations in Chapters 5–15*, summarizes those impacts under each alternative with adaptive implementation evaluated in the Final SED determined to be significant and unavoidable after the evaluation of potential mitigation measures in the plan area.
- Table 18-2, *Summary of CEQA Significance Determinations in Chapters 5–14, Extended Plan Area*, summarizes those impacts under each alternative with adaptive implementation evaluated in the Final SED determined to be significant and unavoidable after the evaluation of potential mitigation measures in the extended plan area.

- Table 18-3, *Summary of LSJR Alternatives CEQA Significance Analysis by Geography in Chapters 5–15*, summarizes the results of the CEQA significance analysis in the Final SED for each resource area as discussed in Chapters 5–15 and the LSJR alternatives by geography (i.e., by river).
- Table 16-38, *Potential Mitigation for Construction and Operation Activities Related to Other Indirect and Additional Actions*, identifies possible mitigation for all potentially significant impacts identified in the Final SED related to the construction and operation of activities related to other indirect and additional actions (e.g., desalination for water supply or for waste water treatment) discussed in Chapter 16.
- Table 16-39, *Potential Mitigation for Construction and Operation Activities Related to Non-Flow Measures*, identifies possible mitigation measures for all potentially significant impacts identified in the Final SED related to the construction and operation of non-flow measures (e.g., gravel augmentation) discussed in Chapter 16.

## Aesthetics

Finding: The State Water Board hereby makes findings (a)(1), (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on aesthetic resources.

Explanation: The Plan Amendments may result in significant impacts on aesthetics in the extended plan area related to drawdowns at reservoirs upstream of the rim dams, particularly on the Stanislaus and Tuolumne Rivers. The drawdown could occur more frequently than under normal operations, exposing unvegetated rims around the perimeter of the reservoir, substantially affecting the visual character or quality of the surrounding area (Chapter 10, Section 10.4.4, *Impacts and Mitigation Measures: Extended Plan Area*). Although this occurs during normal operations, it could occur more often with implementation of the Plan Amendments. Additionally, drawdown in reservoir storage could result in reduced flows in the fall on the Stanislaus and Tuolumne Rivers, which could adversely affect scenic views along these rivers if viewers (e.g., recreationists) cannot see water in the rivers, and the visual character and quality of views of these rivers could be degraded as viewed from nearby state scenic highways. As provided in the Plan Amendments, the State Water Board will manage flows to avoid significant adverse impacts to fish and wildlife beneficial uses at other times of year, including by imposing minimum reservoir carryover storage targets or other requirements or by allowing a portion of the February through June flows to be released after June. These actions could result in additional flows in the fall and limit impacts. Providing more flows in the fall beyond the flows required or allowed under the Plan Amendments to mitigate these types of aesthetic effects is infeasible, however, because it is counter to the Plan Amendments' purpose, which is to provide February to June flows that more closely

mimic the natural hydrograph while avoiding significant adverse impacts to fish and wildlife beneficial uses at other times of the year. The Final SED proposes a mitigation measure for the State Water Board to implement: When considering carryover storage and other requirements to implement the flow water quality objectives in a water right proceeding, the State Water Board shall ensure that reservoir levels upstream of the rim dams do not cause significant aesthetic impacts, unless doing so would be inconsistent with applicable laws. This mitigation is adopted and included in the Mitigation and Monitoring Program; however, even with this mitigation, the impact is considered significant, because the mitigation may not fully mitigate the impact in all situations and there are no other feasible mitigation measures at this time. The impacts remain significant and unavoidable.

The Plan Amendments may also result in significant aesthetic impacts related to actions others could take in response to, or to comply with, the Plan Amendments, particularly surface water transfers, substitution of surface water with groundwater, recycled water sources for water supply, in-Delta diversion, water supply desalination, new surface water supplies, improved temperature conditions, new source water supplies for wastewater treatment plants, salinity pretreatment programs, desalination of wastewater treatment plant effluent, and low lift pumping stations. The significant aesthetic impacts are related to introducing new sources of light or glare during construction and/or operation of facilities (e.g., wastewater treatment plant desalination facilities, low lift pumping stations, water temperature control structures), ground-disturbing activities during construction temporarily impacting the visual character or quality of areas by creating dust clouds and disturbing or removing mature vegetation (e.g., construction of new source water supply facilities), and facilities affecting the visual character of an area through permanent modifications of visual resources (e.g., new surface water supplies). These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Sections 16.2.1, *Transfer/Sale of Surface Water*; 16.2.5, *In-Delta Diversions*; 16.2.6, *Water Supply Desalination*; and 16.4.6, *Low Lift Pumping Stations*; and Tables 16-7, 16-10, 16-11b, 16-18, 16-25, 16-28, and 16-30.

The Final SED identifies mitigation measures for significant aesthetic impacts; for example, in Appendix H and Tables 16-38 and 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including application of the mitigation measures in the Final SED, which may ultimately be implemented to reduce potentially significant impacts

on aesthetics. Consequently, while some impacts could be reduced to a less-than-significant level by other public agency conditions of approval, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable.

With respect to significant aesthetic impacts from water transfers, the State Water Board has authority, when considering transfer petitions, to ensure that reservoir levels in the upper watersheds do not cause significant recreation and aesthetic impacts, unless doing so would be inconsistent with applicable laws. This mitigation is adopted and included in the Mitigation and Monitoring Program. Even with this type of mitigation, however, the impact is considered significant because the mitigation may not fully mitigate the impact in all situations and there are no other feasible mitigation measures at this time. Impacts remain significant and unavoidable.

## **Agricultural Resources and Forestry Resources**

Finding: The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on agricultural resources.

Explanation: The Plan Amendments may result in significant impacts on agricultural resources related to reduced surface water diversions to Prime or Unique Farmland or Farmland of Statewide Importance requiring irrigation. A portion of this designated farmland could potentially be converted to nonagricultural uses. There are many factors affecting whether designated farmland land is converted to non-agricultural uses; for example, lands can be maintained in agricultural use through crop substitution, crop rotation, and dry land farming. And the location of the land in relation to urban centers, available infrastructure, and market forces also influence potential conversion. Although it is unknown whether the reduction in irrigation water would result in a direct conversion of Prime or Unique Farmland or Farmland of Statewide Importance to nonagricultural use, it is conservative to assume that if irrigation water is unavailable to sustain specific crop categories identified the Final SED, then land could be converted to nonagricultural uses (Chapter 11, Section 11.5, *Impacts and Mitigation Measures* and Table 11-17).

The Final SED includes mitigation measures that local water suppliers, regional groundwater management agencies, and irrigation districts could implement, by requiring modifications to existing agricultural practices that increase irrigation efficiency (Section 11.5). Implementing irrigation efficiency measures could reduce the overall amount of irrigation water needed because the water applied to the crops would have fewer losses to deep percolation and surface runoff. The conserved water would then be available for application to additional acreage, thus reducing the



likelihood of conversion to nonagricultural use. Increasing the irrigation efficiency could be accomplished with the following methods.

- Increase the use of irrigation management services to better determine how much water is needed by a crop and when to apply it.
- Convert less efficient irrigation systems (e.g., surface irrigation) to more efficient ones (e.g., microirrigation).
- Increase the capability of irrigation water suppliers to provide delivery flexibility, such as the use of irrigation district regulating reservoirs, to allow flexible delivery durations, scheduling, and flow rates.

In addition, local land use agencies can mitigate for the loss of farmland to urban development through development conditions such as in lieu fees for, or direct purchases of, agricultural conservation easements. These mitigation measures are within the responsibility and jurisdiction of local land use agencies who can and should adopt these mitigation measures. In addition, implementing and/or requiring irrigation efficiencies is within the responsibility of agricultural water suppliers, regional groundwater agencies, irrigation districts, and local governments who can and should implement and/or adopt them. (See, e.g., Wat. Code, §§ 10608.48, 10727.4, subd. (i), 10902.) Due to inherent uncertainty in the degree of mitigation that may ultimately be implemented to reduce potentially significant impacts on agriculture, impacts would remain significant and unavoidable.

The State Water Board has authority to take action to prevent waste, unreasonable use, unreasonable method of use, and unreasonable method of diversion of water. The State Water Board may exercise this authority through adjudicative or quasi-legislative proceedings. However, such proceedings are not part of the Plan Amendments. It is also infeasible for the State Water Board to impose mitigation measures at this time because it is undertaking a programmatic analysis of the potential agricultural resource impacts, does not now have specific facts associated with an individual project to legally and technically impose requirements related to waste and unreasonable use, and it is speculative whether these actions would reduce conversions of agricultural lands. In addition, while the State Water Board may impose water conservation or efficiency requirements through the adoption of regulations, recently-enacted legislation already requires the State Water Board to set long-term standards for efficient use of water for residential, commercial and other urban uses on or before June 30, 2022. (Wat. Code, § 10609.2, as added by Stats. 2018, ch. 15, § 7.) The amount of time, high cost, and commitment of staff resources that would be associated with rule-making proceedings to set additional conservation or efficiency standards for agricultural use renders adopting the mitigation measures currently infeasible. Adopting regulations at this time would require considerable staff time to research, formulate and develop, require extensive stakeholder outreach, and require numerous public meetings before the regulations would take effect. The State Water Board currently has limited resources to pursue

adoption of such regulations as most of its budget for the water right program is supported by fees imposed on water right permit and license holders and is used for program activities related to the diversion and use of water subject to the permit and license system. Only a small amount of funding is available for other regulatory activities, and it is speculative to anticipate that additional funding will be made available. Therefore, at this time, the imposition of the above mitigation measures is infeasible and impacts under the Plan Amendments would remain significant and unavoidable.

The Plan Amendments may also result in significant agricultural resource impacts related to actions others could take in response to or to comply with the Plan Amendments, particularly surface water transfers, recycled water sources for water supply, in-Delta diversion, water supply desalination, new surface water supplies, floodplain and riparian habitat restoration, new source water supplies for wastewater treatment plants, desalination of wastewater treatment plant effluent, agricultural return flow salinity control, and low lift pumping stations. Many of the significant agricultural impacts are related to operational activities that may permanently remove designated agricultural land from agricultural use as a result of the operation of a facility or a change in agricultural practices. Some of the significant agricultural impacts are related to construction activities, such as the temporary removal of designated farmland during the construction of distribution pipelines for a recycled wastewater treatment plant or new source water distribution. In addition, new surface water supplies could result in significant impacts on forestry resources because most of the potential reservoir sites partially overlap forest vegetation zones. Thus, these impacts could be due not only to construction activities, but also due to operation of a new reservoir. Operation of a new reservoir would be expected to permanently remove forestry resources as the reservoir fills. If forest land or timberland is permanently removed from production due to construction and operation of new surface water facilities, it is likely impacts would not be fully mitigated. These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Section 16.2.1, *Transfer/Sale of Surface Water*; Section 16.2.5, *In-Delta Diversions*; Section 16.2.6, *Water Supply Desalination*; and Tables 16-10, 16-11b, 16-12, 16-25, 16-30, 16-32, and Section 16.4.6, *Low Lift Pumping Stations*.

The Final SED identifies mitigation measures for significant agricultural impacts in Chapter 16 and Appendix H, *Supporting Materials for Chapter 16*; for example, these include mitigation measures identified in Tables 16-38 and 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-

level mitigation for individual projects lies with other public agencies, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on agricultural resources or forestry resources. Consequently, while some impacts, primarily those related to construction and of a temporary nature, could be reduced to a less-than-significant level by other public agency conditions of approval, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and impacts would remain significant and unavoidable.

## **Air Quality**

Finding: The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on air resources.

Explanation: The Plan Amendments may result in significant impacts on air quality related to actions others could take in response to or to comply with the Plan Amendments, particularly substitution of surface water with groundwater, recycled water sources for water supply, in-Delta diversion, water supply desalination, new surface water supplies, floodplain and riparian habitat restoration, gravel augmentation, enhance in-channel complexity, improved temperature conditions, fish screens, physical barriers in the southern Delta, predatory fish control, new source water supplies for wastewater treatment plants, salinity pretreatment programs, desalination of wastewater treatment plant effluent, and low-lift pumping stations. Many of the significant impacts related to air quality result from the use of heavy construction equipment and construction worker commutes to construction sites that could be expected during various construction activities. Construction air quality emissions could exceed various local and regional air quality emission thresholds, resulting in significant impacts. This depends on the location in which the emissions occur, if the air basins are in non-attainment for various air quality pollutants, and if thresholds are established by the local or regional air quality control board for various air quality pollutants and are exceeded (e.g., Particulate Matter<sub>10</sub> [PM<sub>10</sub>] and Particulate Matter 2.5 [PM<sub>2.5</sub>]). Operation of facilities that have stationary sources that generate air quality emissions could result in significant air quality emissions through their various processes (e.g., water recycling at wastewater treatment plants, desalination of wastewater treatment plant effluent, salinity pretreatment, low-lift pumping stations). Activities such as trips generated by increases in recreational facilities associated with new surface water sources or truck trips generated as a result of disposing of brine or other processing byproduct

generated by different facilities (e.g., wastewater desalination, salinity pretreatment) could also exceed thresholds established by local or regional air quality control boards resulting in significant air quality impacts. These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Section 16.2.5, *In-Delta Diversions*; Section 16.2.6, *Water Supply Desalination*; Section 16.4.6, *Low Lift Pumping Stations*; Tables 16-7, 16-10, 16-11b, 16-12, 16-15, 16-17, 16-18, 16-20, 16-21, 16-22, 16-25, 16-28, and 16-30.

The Final SED identifies mitigation measures for significant impacts related to air quality in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Tables 16-38 and 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation for individual projects lies with other public agencies, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts related to air quality emissions. Consequently, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and impacts would remain significant and unavoidable.

## **Biological Resources**

The Final SED discusses potential impacts on both aquatic biological resources and terrestrial biological resources in Chapter 7, *Aquatic Biological Resources*, Chapter 8, *Terrestrial Biological Resources*, and Chapter 16, *Evaluation of Other Indirect and Additional Actions*. As such, the findings in this section are organized into two subsections to discuss the findings with respect to aquatic biological resources and terrestrial biological resources.

### **Aquatic**

Finding: The State Water Board hereby makes findings (a)(1), (a)(2), and (a)(3) as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on aquatic biological resources.

Explanation: The Plan Amendments may result in significant impacts on aquatic resources related to potential reductions of river levels and reservoir volumes upstream of the rim dams as a result of bypassing flows, particularly on the

Stanislaus and Tuolumne Rivers. Reservoir drawdown could reduce the area and volume of water available for in-reservoir aquatic habitat and could potentially increase water temperatures depending on the severity of the drawdown and the water year type. Similar significant impacts could occur to rivers upstream of the rim dams through a reduction of flow in the rivers. The Final SED proposes a mitigation measure for the State Water Board to implement: When considering carryover storage and other requirements to implement the flow water quality objectives in a water right proceeding, the State Water Board shall ensure that reservoir levels upstream of the rim dams do not cause significant aquatic biological resource impacts, unless doing so would be inconsistent with applicable laws. This mitigation is adopted and included in the Mitigation and Monitoring Program; however, even with this mitigation, the impact is considered significant, because the mitigation may not fully mitigate the impact in all situations and there are no other feasible mitigation measures at this time. Impacts remain significant and unavoidable.

The Plan Amendments may also result in significant impacts on aquatic resources related to actions others could take in response to or to comply with the Plan Amendments, particularly transfer/sale of surface water, water supply desalination, new surface water supplies, floodplain and riparian habitat restoration, gravel augmentation, enhanced in-channel complexity, improved temperature conditions, fish screens, physical barriers in the southern Delta, predatory fish control, invasive aquatic vegetation control, new source water supplies for wastewater treatment plants, salinity pretreatment programs, desalination of wastewater treatment plant effluent, agricultural return flow salinity control, and low lift pumping stations. Many of the significant impacts that could result from these actions are related to potential in-water work construction activities potentially affecting aquatic biological resources through temporary modification of habitat (e.g., increases in turbidity, changes of temperature, discharge of materials into waterways), or through direct impacts including injuring or killing special-status fish species (e.g., by underwater noise associated with pile driving for cofferdam construction if the action needs de-watering, stranding within cofferdams, or fish rescue). However, some significant impacts are related to the operation of facilities or operation of in-water actions related to potential operational discharges to waterways (e.g., water supply desalination), potentially permanently removing or substantially altering habitat for aquatic biological resources (e.g., transfer/sale of water, new source water supplies for wastewater treatment plants), or potentially disturbing habitat for a temporary period of time (e.g., invasive aquatic vegetation control). For example, the operation of water supply desalination facilities could potentially result in significant impacts on aquatic resources, including special-status species, due to discharge of brine concentrate, which could be avoided or mitigated through design and operation, regulatory compliance, and project-specific mitigation. In addition, depending on the type of construction or operational activity, there is the potential to conflict with adopted habitat conservation plans (e.g., San Joaquin County Multi-Species Habitat

Conservation and Open Space Plan, local policy protecting biological resources, or natural community conservation plan), depending on the type of activity, whether it's covered under an adopted plan or local policy, the aquatic biological resource protected, and the lead agency (e.g., new surface water supplies, new source water supplies, salinity pre-treatment programs, desalination, agricultural return flow salinity control). These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Section 16.2.1, *Transfer/Sale of Surface Water*; Section 16.2.6, *Water Supply Desalination*; Section 16.4.6, *Low Lift Pumping Stations*; and Tables 16-11b, 16-12, 16-15, 16-17, 16-18, 16-20, 16-21, 16-22, 16-23, 16-25, 16-28, 16-30, and 16-32.

The Final SED identifies mitigation measures for significant impacts on aquatic biological resources in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Tables 16-38 and 16-39 and Sections 16.2.1 and 16.2.6. Non-flow measures requiring modification of habitat (e.g., floodplain and riparian habitat restoration, gravel augmentation, enhanced in-channel complexity) would incorporate a mitigation, monitoring, and management plan through permit requirements to monitor the effectiveness of the non-flow measure under operating conditions as described in the tables identified above. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation for individual projects lies with other public agencies, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on aquatic resources. Consequently, while some impacts could be reduced to a less-than-significant level by public agency conditions of approval, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions would remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and impacts would remain significant and unavoidable.

## **Terrestrial**

Finding: The State Water Board hereby makes findings (a)(1), (a)(2), and (a)(3) as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on terrestrial biological resources.

Explanation: The Plan Amendments may result in significant impacts on terrestrial biological resources, including candidate, sensitive, or special-status wildlife and plant species, wetlands, riparian habitat, or other sensitive plant species or sensitive natural communities, related to potential reductions of river levels and reservoir volumes upstream of the rim dams as a result of bypassing flows, similar to the effects described above for aquatic biological resources, particularly on the Stanislaus and Tuolumne Rivers. Reservoir drawdowns would reduce the area of water-dependent habitat for terrestrial species, including sensitive water-dependent plant species and amphibian species, around upstream reservoirs. Similar significant impacts could occur on rivers upstream of the rim dams, and reductions in habitat to special-status terrestrial species could occur associated with lower river flows. The Final SED proposes a mitigation measure for the State Water Board to implement: When considering carryover storage and other requirements to implement the flow water quality objectives in a water right proceeding, the State Water Board shall ensure that reservoir levels upstream of the rim dams do not cause significant impacts on terrestrial biological resource (wildlife, wetlands, and sensitive plant species), unless doing so would be inconsistent with applicable laws. This mitigation is adopted and included in the Mitigation and Monitoring Program; however, even with this mitigation, the impact is considered significant because the mitigation may not fully mitigate the impact in all situations and there are no other feasible mitigation measures at this time. Impacts remain significant and unavoidable.

The Plan Amendments may also result in significant impacts on terrestrial biological resources, including candidate, sensitive, or special-status wildlife and plant species wetlands, riparian habitat, or other sensitive plant species or sensitive natural communities, related to actions others could take in response to or to comply with the Plan Amendments, particularly transfer/sale of surface water, substitution of surface water with groundwater, recycled water sources for water supply, in-Delta diversion, water supply desalination, new surface water supplies, floodplain and riparian habitat restoration, gravel augmentation, enhanced in-channel complexity, improved temperature conditions, fish screens, physical barriers in the southern Delta, predatory fish control, invasive aquatic vegetation control, new source water supplies for wastewater treatment plants, salinity pretreatment programs, desalination of wastewater treatment plant effluent, agricultural return flow salinity control, and low lift pumping stations. Many of the significant impacts are related to construction activities potentially affecting terrestrial species because of the potential for temporary ground disturbing activities that may temporarily disturb wildlife or plant species or habitat during construction activities, interfere with the movement of native resident or migratory wildlife species, or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites, and of kill or injure species, including special-status plant species. However, some significant impacts are related to the operation of facilities if operation would potentially

permanently remove or otherwise substantially alter habitat (e.g., transfer/sale of surface water and new source water supplies for wastewater treatment plants). In addition, depending on the type of construction or operational activity, there is the potential to conflict with adopted habitat conservation plans (e.g., San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, local policy protecting biological resources, or natural community conservation plan), depending on the type of activity, whether it's covered under an adopted plan or local policy, aquatic biological resource protected, and lead agency (e.g., new surface water supplies, new source water supplies, salinity pre-treatment programs, desalination, agricultural return flow salinity control). These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Section 16.2.1, *Transfer/Sale of Surface Water*, Section 16.2.5, *In-Delta Diversions*; Section 16.2.6, *Water Supply Desalination*; Section 16.4.6, *Low Lift Pumping Stations*; and Tables 16-7, 16-10, 16-11b, 16-12, 16-15, 16-17, 16-18, 16-20, 16-21, 16-22, 16-23, 16-25, 16-28, 16-30, and 16-32.

The Final SED identifies mitigation measures for significant impacts on terrestrial biological resources in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Tables 16-38 and 16-39, Section 16.2.6. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on terrestrial resources. Consequently, while some impacts could be reduced to a less-than-significant level by public agency conditions of approval, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and impacts would remain significant and unavoidable.

## **Cultural Resources**

Finding: The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on cultural resources.



Explanation: The Plan Amendments may result in significant cultural resource impacts related to actions others could take in response to or to comply with the Plan Amendments, particularly substitution of surface water with groundwater, recycled water sources for water supply, in-Delta diversion, water supply desalination, new surface water supplies, floodplain and riparian habitat restoration, enhancing in-channel complexity, improved temperature conditions, fish screens, physical barriers in the southern Delta, predatory fish control, new source water supplies for wastewater treatment plants, desalination of wastewater treatment plant effluent, salinity pretreatment programs, agricultural return flow salinity control, and low lift pumping stations. Many significant impacts on cultural resources and human remains are related to construction activities. Where ground-disturbing activities, such as excavation, or in the case of floodplain and habitat restoration if levees are breached, are required, there would be the potential to encounter as yet unknown significant buried cultural resources (significant historical, archeological, or paleontological resources) and human remains. For some actions, such as new surface water supplies (dams and associated storage reservoir), and improving water temperature conditions via water temperature control structures, operation could result in significant impacts. For example, while temperature improvement devices could be considered needed as part of the normal operation of New Melones, New Don Pedro, and New Exchequer Dams, depending on the device selected, as well as the size and design, a determination may need to be made of the potentially significant historical or non-historical nature of the dams and whether the device would affect the significance of the potential historical nature and, in so doing, result in a significant impact. In the case of operating a new dam and storage reservoir for a new surface water supply, there could be the potential to affect cultural resources by exposing cultural resource sites to discovery and disruption by the general public. The types of significant impacts on cultural resources are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Tables 16-7, 16-10, 16-11b, 16-12, 16-17, 16-18, 16-20, 16-21, 16-22, 16-25, 16-28, 16-30, 16-32, and Sections 16.2.5, *In-Delta Diversions*; 16.2.6, *Water Supply Desalination*; and 16.4.6, *Low Lift Pumping Stations*.

The Final SED identifies mitigation measures for significant impacts on cultural resources in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Tables 16-38 and 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the

degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on cultural resources. Consequently, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and impacts would remain significant and unavoidable.

## **Geology and Soils**

Finding: The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on geology and soils.

Explanation: The Plan Amendments may result in significant impacts on geology and soil resources related to actions others could take in response to or comply with the Plan Amendments. The Plan Amendments may result in significant impacts related to soil erosion and loss of topsoil due to ground-disturbing construction activities associated with implementing indirect actions, non-flow measures, and methods of compliance, including substitution of surface water with groundwater, in-Delta diversion, recycled water sources for water supply, water supply desalination, new surface water supplies, floodplain and riparian habitat restoration, gravel augmentation, enhance in-channel complexity, fish screens, physical barriers in the southern Delta, new source water supplies for wastewater treatment plants, salinity pretreatment programs, agricultural return flow salinity control, desalination of wastewater treatment plant effluent, and low lift pumping stations. There is uncertainty as to the precise locations where construction activities could occur. Accordingly, there is the potential for significant impacts related to constructing facilities for recycled water sources, desalination of wastewater treatment plant effluent, new source water supply facilities, and water supply desalination in areas known to have an earthquake fault and to experience strong seismic ground shaking and/or seismic-related ground failure, landslides, or to be located on a geologic unit or soil that is unstable or be located on expansive soil. In addition, new surface water supply facilities could result in an impact on or be affected by expansive soils or landslides. Landslides resulting from construction of new source water supply facilities could occur on cut slopes created for dam building or from the reservoir side slopes when filled with water. If there were to be an increase in reservoir side slope instability, people drawn to the reservoir for recreational opportunities would be exposed to that geologic hazard. Construction of new surface water supply facilities would potentially entail installation of septic tanks, which could be affected by soils incapable of supporting the use of the tanks or other alternative wastewater disposal systems and would be a significant impact. Groundwater pumping as part

of substitution of surface water with groundwater could result in subsidence due to groundwater depletion and would also be considered a significant impact on geology and soils (as discussed in this document for *Hydrology and Water Quality* and *Groundwater Resources*). These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Tables 16-7, 16-10, 16-11b, 16-12, 16-15, 16-17, 16-20, 16-21, 16-25, 16-28, 16-30, 16-32, and Sections 16.2.5, *In-Delta Diversions*; 16.2.6, *Water Supply Desalination*; and 16.4.6, *Low Lift Pumping Stations*.

The Final SED identifies mitigation measures for significant impacts related to geology and soils; for example, these include mitigation measures identified in Appendix H and Chapter 16, Tables 16-39 and 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on geology and soils. Consequently, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable.

## **Greenhouse Gases and Energy**

Finding: The State Water Board hereby makes findings (a)(1), (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on greenhouse gases (GHGs) and energy.

Explanation: The Plan Amendments would have significant impacts on GHG emissions because emissions would be indirectly generated and would result in a conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions. GHG emissions would be indirectly generated through a change in hydropower generation or through a potential increase in groundwater pumping to replace the use of surface water, primarily used for irrigation purposes (Chapter 14, Section 14.4.2, *Methods and Approach*). In addition, potential reservoir volume reductions upstream of the rim dams would occur more frequently and be more severe during drought conditions; consequently, there could be significant hydropower production reductions at reservoirs upstream of the rim dams under the Plan Amendments (Chapter 14, Section 14.4.4, *Impacts and Mitigation Measures: Extended Plan Area*).

A review of GHG mitigation measure guidance documents was conducted to determine if additional actions could be taken to reduce GHGs, as described in Chapter 14, *Energy and Greenhouse Gases*. Many of the measures identified in the guidance documents and incorporated into the discussion of Section 14.4.3, *Impacts and Mitigation Measures* are project-level measures appropriate for project-specific development, for example: increase water system energy efficiency to reduce energy consumption related to irrigation deliveries (State Water Board 2009); reduce turf in landscapes and lawns (CAPCOA 2010); devise a comprehensive water conservation strategy appropriate for the project and location (OAG 2010); provide education about water conservation, such as through an “informative” water bill (OAG 2010; U.S. EPA 1998). Individual projects will be subject to the appropriate level of environmental review at the time they are proposed, and mitigation would have to be identified to avoid or reduce significant effects, prior to any project-level action. Nevertheless, local water districts and suppliers, regional groundwater agencies, irrigation districts, and local agencies and governments can and should adopt the relevant mitigation measures, either voluntarily or as required by CEQA when approving discretionary projects that are undertaken in response to the Plan Amendments. It is infeasible for the State Water Board to impose mitigation measures at this time because it is undertaking a programmatic analysis of the potential GHG impacts and does not currently have specific facts associated with an individual project to legally and technically apply the mitigation measures in an adjudicative proceeding. The State Water Board will consider and impose these measures where legally supportable as part of individualized water right proceedings to implement the flow objectives. Therefore, at this time, the imposition of the mitigation measures identified above and in Chapter 14 is infeasible and impacts would remain significant and unavoidable.

As discussed in the *Agricultural Resources and Forestry Resources* section of this document, improving irrigation efficiency can be a mitigation measure because the surface water diversions primarily support agriculture in the plan area, and this type of mitigation measure may indirectly reduce GHG emissions. Any quantification of the effects of applying irrigation efficiency measures would be speculative; however, even with well-implemented irrigation efficiency measures, GHG emissions are not expected to be reduced to less-than-significant levels. In addition, while the State Water Board may impose water conservation or efficiency requirements through the adoption of regulations, recently-enacted legislation already requires the State Water Board to set long-term standards for efficient use of water for residential, commercial and other urban uses on or before June 30, 2022. (Wat. Code, § 10609.2, as added by Stats. 2018, ch. 15, § 7.) The amount of time, high cost, and commitment of staff resources that would be associated with rule-making proceedings to set additional conservation or efficiency standards for agricultural use renders adopting the mitigation measures currently infeasible. Adopting regulations at this time would require considerable staff time to research, formulate, and develop; require

extensive stakeholder outreach; and require numerous public meetings before the regulations would take effect. The State Water Board currently has limited resources to pursue adoption of such regulations as most of its budget for the water right program is supported by fees imposed on water right permit and license holders and is used for program activities related to the diversion and use of water subject to the permit and license system. Only a small amount of funding is available for other regulatory activities, and it is speculative to anticipate that additional funding will be made available. Therefore, at this time, the imposition of the above mitigation measures is infeasible and impacts would remain significant and unavoidable.

With respect to reservoir volume reductions upstream of the rim dams as it relates to a potential reduction in hydropower, the following mitigation measure is proposed: When considering carryover storage and other requirements to implement the flow water quality objectives in a water right proceeding, the State Water Board shall ensure that reservoir levels upstream of the rim dams do not cause significant hydropower and GHG impacts, unless doing so would be inconsistent with applicable laws. This mitigation is adopted and included in the Mitigation and Monitoring Program; however, even with this mitigation, the impact is considered significant because the mitigation may not fully mitigate the impact in all situations and there are no other feasible mitigation measures at this time. Impacts remain significant and unavoidable.

The Plan Amendments may also result in significant GHG emissions related to actions others could take in response to or to comply with the Plan Amendments, particularly surface water transfers, substitution of surface water with groundwater (also discussed above), recycled water sources for water supply, in-Delta diversion, water supply desalination, new surface water supplies, floodplain and riparian habitat restoration, gravel augmentation, enhanced in-channel complexity, improved temperature conditions, fish screens, physical barriers in South Delta, predatory fish control, invasive aquatic vegetation control, new source water supplies for wastewater treatment plants, salinity source controls (i.e., pretreatment programs), desalination of wastewater treatment plant effluent, agricultural return flow salinity control, and low lift pumping stations. GHGs could be emitted during construction activities because of the use of heavy equipment and construction worker commutes to construction sites for the actions listed above. Construction GHG emissions could exceed various local and regional GHG emissions thresholds, depending on the location in which they occur and if thresholds are established by the local or regional air quality control board, resulting in significant impacts. Furthermore, an overall increase of GHG emissions could occur during facility operation through either an increase in electricity-related GHG emissions related to operating facilities, an increase in trips related to recreation for a new surface water reservoir or monitoring and maintenance for non-flow measures, or a loss of CO<sub>2</sub> sequestration from

vegetation that dies within the reservoir inundation zone for new surface water reservoirs, potentially exceeding various local and regional GHG emissions thresholds (if established by the local or regional air quality control board). These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations Section 16.2.1, *Transfer/Sale of Surface Water*; Section 16.2.5, *In-Delta Diversions*; Section 16.2.6, *Water Supply Desalination*; Section 16.4.6, *Low Lift Pumping Stations*; and Tables 16-7, 16-10, 16-11b, 16-12, 16-15, 16-17, 16-18, 16-20, 16-21, 16-22, 16-23, 16-25, 16-28, 16-30, and 16-32.

The Final SED identifies mitigation measures for the significant emission of GHGs in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Tables 16-38 and 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts associated with GHGs. Consequently, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and impacts would remain significant and unavoidable.

## **Hazards and Hazardous Materials**

Finding: The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on mineral resources.

Explanation: The Plan Amendments may result in significant impacts on hazards and hazardous materials related to actions others could take in response to or to comply with the Plan Amendments, particularly substitution of surface water with groundwater, recycled water sources for water supply, in-Delta diversion, water supply desalination, new surface water supplies, floodplain and riparian habitat restoration, gravel augmentation, enhance in-channel complexity, improved temperature conditions, fish screens, physical barriers in the southern Delta, predatory fish control, invasive aquatic vegetation control, new source water supplies for wastewater treatment plants, salinity pretreatment programs, desalination of wastewater treatment plant effluent, agricultural return flow salinity

control, and low-lift pumping stations. Many of the significant impacts related to hazards and hazardous materials are as a result of construction activities. The temporary transport, handling or use of different hazardous materials during construction (e.g., oil, gasoline, diesel for construction equipment) could result in a potential for an upset or accident conditions that might involve the release of hazards and hazardous materials into the environment during construction. This depends on the quantity and location of hazardous materials transported, handled, or used. This potential could occur at the construction site, and depending on the location of the construction site, within relatively close proximity to a school. In addition, depending on the location of a construction site and the type of construction (e.g., excavation and ground disturbance), construction could take place on a listed hazardous materials site and disturb potentially existing hazardous materials or disturb and potentially alter existing underground utilities. Finally, if construction takes place within or close to roads, construction could result in potential conflicts or hazards with emergency response. Operation of some facilities may also require the transport and handling of hazardous materials for treatment of water (e.g., treatment at groundwater wells, in-Delta diversions, water supply desalination, salinity pretreatment programs, and desalination of wastewater treatment plant effluent); as part of a processing method or operation of machines (e.g., desalination of wastewater treatment plant effluent, salinity pretreatment, low-lift pumping facilities); or application method (e.g., invasive aquatic vegetation control could purposefully release herbicides to control vegetation). This use of hazardous materials could be handled within close proximity to a school or result in an increased risk of potential upset or accident conditions that might involve the release of a hazardous material into the environment. These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Section 16.2.5, *In-Delta Diversions*; Section 16.2.6, *Water Supply Desalination*; Section 16.4.6, *Low Lift Pumping Stations*; and Tables 16-7, 16-10, 16-11b, 16-12, 16-15, 16-17, 16-18, 16-20, 16-21, 16-22, 16-23, 16-25, 16-28, 16-30, and 16-32.

The Final SED identifies mitigation measures for significant impacts related to hazards and hazardous materials in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Tables 16-38 and 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts related to hazards and hazardous materials. Consequently, the State Water Board takes a conservative

approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and impacts would remain significant and unavoidable.

## Hydrology and Water Quality

Finding: The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on hydrology and water quality.

Explanation: The Plan Amendments may result in significant impacts related to drainage, erosion, runoff, or accidental release of hazardous materials to surface water or groundwater associated with typical construction activities from actions other could take in response to or to comply with the Plan Amendments, particularly the transfer/sale of surface water, substitution of surface water with groundwater that would involve the construction and operation of agricultural and municipal groundwater wells and the construction of recycled water treatment facilities and distribution systems, in-Delta diversion facilities, water supply desalination, new surface water storage facilities and associated recreational facilities, new source water supplies for wastewater treatment plants, salinity source controls, wastewater treatment plant desalination facilities, detention ponds related to agricultural return flow salinity control, and low-lift pumping stations. These types of significant impacts are described in Chapter 16 and Appendix H, including in the following locations: Sections 16.2.5, *Transfer/Sale of Surface Water*, 16.2.5, *In-Delta Diversions*; 16.2.6, *Water Supply Desalination*; 16.4.6, *Low-Lift Pumping Stations*; and Tables 16-7, 16-10, 16-11b, 16-25, 16-28, 16-30, and 16-32. Significant impacts related to landslides and mudflows would also result from the construction and operation of new surface water storage facilities. The operation of water supply desalination facilities could potentially result in significant water quality impacts due to the disposal of brine concentrate. If closed vault toilet systems or septic systems were installed at new surface reservoir sites on soils incapable of adequately supporting them, those systems could fail and could discharge waste to surface water or groundwater. However, these impacts could be avoided or mitigated through design and operation, regulatory compliance, and project-specific mitigation. Desalination facilities at wastewater treatment plants would likely be located in flood hazard areas because the plants are typically adjacent to rivers and, while they would not substantially add to existing structures such that flood flows would be impeded or redirected, until mitigation is imposed, impacts would remain significant. The Final SED identifies mitigation measures for these impacts in Chapter 16 and Appendix H, including in Table 16-38. The authority to determine and require site- or project-



specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on hydrology and water quality. Consequently, while most impacts could be reduced to less-than-significant levels by public agencies, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds that the impacts identified would be potentially significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and impacts would remain significant and unavoidable.

In response to the Plan Amendments, surface water transfers implemented through groundwater substitution and increases in localized groundwater pumping could contribute to significant impacts on groundwater levels or groundwater quality, as discussed in Chapter 16, Section 16.2.1, *Transfer/Sale of Surface Water*, Table 16-7, and Chapter 9, *Groundwater Resources*. The same explanation set forth in the Groundwater Resources section of these findings for why mitigation measures for this impact are the responsibility of local agencies and why State Water Board mitigation is infeasible applies and is incorporated herein.

The Plan Amendments may result in significant impacts related to increased turbidity, erosion, siltation, flooding, or polluted runoff from the improper use of hazardous materials associated with the following construction activities that could occur in response to the Plan Amendments: floodplain and riparian habitat restoration projects, gravel augmentation projects, in-channel enhancing structures to increase channel complexity, water temperature control structures, fish screens, physical barriers in the southern Delta, removal or modification of human-made structures in waters to control predatory fish and their habitat, and invasive aquatic vegetation control. These significant impacts are described in Chapter 16, including in the following locations: Tables 16-12, 16-13, 16-15, 16-17, 16-18, 16-20, 16-21, 16-22, and 16-23. The Final SED identifies mitigation measures for these impacts in Chapter 16, including in Table 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of

mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on hydrology and water quality. Consequently, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable.

## Groundwater Resources

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for potentially significant impacts on groundwater.

Explanation: The Plan Amendments may result in potentially significant groundwater impacts related to substantially depleting groundwater supplies or substantially interfering with groundwater recharge in the Modesto, Turlock, and Extended Merced Subbasins. The Plan Amendments could also result in potentially significant impacts related to increasing the likelihood of subsidence in the Extended Merced Subbasin as a result of groundwater depletion. The Final SED includes mitigation measures to reduce or avoid these impacts (for example, identified in Section 9.4.3, *Impacts and Mitigation Measures*); however, under the Sustainable Groundwater Management Act (SGMA) framework, local agencies are tasked with protecting and managing high and medium priority groundwater basins, with state intervention to begin by specified dates if local agencies are unwilling or unable to manage. The SGMA deadlines for state intervention are still prospective; therefore, State Water Board mitigation to protect the groundwater basin from the indirect impacts of the Plan Amendments is infeasible at this time, but mitigation under local authorities is both feasible and required. Thus, at this time, local agencies are vested with the mandatory duty to achieve sustainable groundwater management, which includes not causing undesirable results, such as significant and unreasonable reduction of groundwater storage and degradation of water quality. Therefore, these local agencies with authority over the Modesto, Turlock, and Extended Merced Subbasins can and should exercise their full authorities to address substantial depletion of groundwater supplies and water quality degradation, both under SGMA and their police powers. Local agencies with authority over the Extended Merced Subbasin should also exercise their authorities to address subsidence, both under SGMA and their local police powers. Under those authorities, they can and should also implement those mitigation measures identified in the Final SED. Doing so would prevent groundwater depletion, water quality impacts, and subsidence, or would mitigate those impacts.

The State Water Board has several authorities that are independent of SGMA, including authority to take action to prevent waste, unreasonable use, unreasonable method of use, and unreasonable method of diversion of water. The State Water Board may exercise this authority through adjudicative or quasi-legislative

proceedings. However, it is infeasible for the State Water Board to impose mitigation measures to prevent waste and unreasonable use at this time because it is undertaking a programmatic analysis of the potential groundwater resource impacts and does not have specific facts associated with an individual project to legally and technically apply requirements to prevent waste and unreasonable use in an adjudicative proceeding. In addition, while the State Water Board may impose water conservation or efficiency requirements through the adoption of regulations, recently-enacted legislation already requires the State Water Board to set long-term standards for efficient use of water for residential, commercial and other urban uses on or before June 30, 2022. (Wat. Code, § 10609.2, as added by Stats. 2018, ch. 15, § 7.) The amount of time, high cost, and commitment of staff resources that would be associated with rule-making proceedings to set additional conservation or efficiency standards for agricultural use renders adopting the mitigation measures currently infeasible. Adopting regulations at this time would require considerable staff time to research, formulate and develop, require extensive stakeholder outreach, and require numerous public meetings before the regulations would take effect. The State Water Board currently has limited resources to pursue adoption of such regulations as most of its budget for the water right program is supported by fees imposed on water right permit and license holders and is used for program activities related to the diversion and use of water subject to the permit and license system. Only a small amount of funding is available for other regulatory activities, and it is speculative to anticipate that additional funding will be made available.

Due to the infeasibility of mitigation by the State Water Board at this time and the inherent uncertainty in the degree to which mitigation identified in the Final SED may be implemented by local agencies, particularly in the near-term, impacts on groundwater resources would remain potentially significant and unavoidable.

## Land Use and Planning

Finding: The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on land use and planning.

Explanation: The Plan Amendments may result in significant impacts on land use and planning related to actions others could take in response to or to comply with the Plan Amendments, particularly with respect to water supply desalination, new source water supplies for wastewater treatment plants, desalination of wastewater treatment plant effluent, salinity pretreatment, agricultural return flow, and low lift pumping stations. Significant impacts are related to consistency determination(s) with the Delta Plan. Construction and operation of some facilities would likely take place in the Delta and may be considered covered actions under the Delta Plan. A state or local agency proposing to undertake a covered action must submit to the Delta Stewardship Council (Council) a written certification of consistency with

detailed findings as to whether the covered action is consistent with the Delta Plan. Any person may appeal a certification of consistency to the Council. The consistency determination could include implementing mitigation from the Mitigation Monitoring or Reporting Program of the Delta Plan, as appropriate. Significant impacts are also related to the temporary or permanent displacement of existing land uses (e.g., water supply desalination or low-lift pumping stations). These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Section 16.2.6, *Water Supply Desalination*; Section 16.4.6, *Low Lift Pumping Stations*; and Tables 16-25, 16-28, 16-30, and 16-32.

The Final SED identifies mitigation measures for impacts related land use in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Table 16-38. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts related to land use and planning. Consequently, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable.

## Noise

Finding: The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on noise.

Explanation: The Plan Amendments may result in significant noise impacts related to actions others could take in response to or to comply with the Plan Amendments, particularly the construction of municipal groundwater wells, recycled water facilities, in-Delta diversions, water supply desalination, new surface water storage facilities, water temperature control structures, fish screens, physical barriers in the southern Delta, predatory fish control structures, invasive aquatic vegetation control, new source water supply facilities, salinity pretreatment, desalination of wastewater effluent facilities, agricultural return flow salinity controls, and low lift pumping stations. In addition, certain facility operations, including operation of groundwater wells and recycled water treatment at wastewater treatment plants, may also result in significant noise impacts resulting from the potential permanent increase in noise. These types of significant impacts depend on the location of the noise producing

activity, the duration of the activity, the location of sensitive receptors and the existing regulations and requirements regarding noise. These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in Section 16.2.5, *In-Delta Diversions*; Section 16.2.6, *Water Supply Desalination*; and Section 16.4.6, *Low Lift Pumping Stations*; and in Tables 16-7, 16-10, 16-11b, 16-18, 16-20, 16-21, 16-22, 16-23, 16-25, 16-28, 16-30, and 16-32.

The Final SED identifies mitigation measures for noise impacts associated with construction or operation in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Tables 16-38 and 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on noise. Consequently, while some impacts could be reduced to a less-than-significant level by other public agency conditions of approval, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and impacts would remain significant and unavoidable.

## **Mineral Resources**

Finding: The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on mineral resources.

Explanation: The Plan Amendments may result in significant impacts on mineral resources related to actions others could take in response to or to comply with the Plan Amendments, particularly developing new surface water supplies and the non-flow measure of gravel augmentation. The significant impacts on mineral resources are related to the potential permanent removal or inability to access state- or locally designated mineral resource areas (e.g., aggregate mining areas), depending on the location of the new surface water supply or the gravel augmentation in relation to a designated mineral resource area. This could result from either permanent inundation associated with a new surface water reservoir or as a result of augmented gravel moving down the river system and cover or substantially alter existing aggregate mining areas. These types of significant impacts are described in

Chapter 16, including in the following locations: Tables 16-11b and 16-15. The Final SED identifies mitigation measures for significant mineral resource impacts in Chapter 16; for example, these include mitigation measures identified in Tables 16-15 and 16-38. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on mineral resources. Consequently, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable.

## Public Services

Finding: The State Water Board hereby makes finding (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on mineral resources.

Explanation: The Plan Amendments may result in significant impacts on public services related to actions others could take in response to or to comply with the Plan Amendments, particularly water supply desalination facilities and the development of new surface water supplies. The significant impacts on public services are related to the temporary increase in solid waste potentially generated during construction and the potential need for public services at a new surface water reservoir. The operation of a new surface water reservoir and associated recreational facilities would involve an increase in people in the area, primarily for seasonal recreational purposes, which would likely require new or additional public services such as local fire protection, wild land fire protection (e.g., CALFIRE), police protection, electrical service, and water service. These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Section 16.2.6, *Water Supply Desalination*, and Table 16-11b.

The Final SED identifies mitigation measures for significant public service impacts in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Section 16.2.6 and Table 16-38. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible.

Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on public services. Consequently, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable.

## Recreational Resources

Finding: The State Water Board hereby makes findings (a)(1), (a)(2), and (a)(3) (described above), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on recreation.

Explanation: The Plan Amendments may result in significant impacts on recreation related to more frequent inundation and physical deterioration of existing on-bank recreational facilities in the plan area and extended plan area (Chapter 10, Section 10.4.4, *Impacts and Mitigation Measures: Extended Plan Area*). As provided in the Plan Amendments, the State Water Board will manage flows to avoid significant adverse impacts to fish and wildlife beneficial uses at other times of year, including by imposing minimum reservoir carryover storage targets or other requirements or by allowing a portion of the February through June flows to be released after June. These actions could result in less flows at times and limit impacts. Reducing flows below the flows required or allowed under the Plan Amendments could mitigate the impacts, but is infeasible because it is counter to the Plan Amendments' purpose, which is to provide February to June flows that more closely mimic the natural hydrograph while avoiding significant adverse impacts to fish and wildlife beneficial uses at other times of the year. The Final SED includes mitigation measures for owners and operators of recreational facilities to implement, but the State Water Board lacks authority to require them. The Final SED also proposes a mitigation measure for the State Water Board to implement: When considering carryover storage and other requirements to implement the flow water quality objectives in a water right proceeding, the State Water Board shall ensure that reservoir levels upstream of the rim dams do not cause significant recreation impacts, unless doing so would be inconsistent with applicable laws. This mitigation is adopted and included in the Mitigation and Monitoring Program; however, even with this mitigation, the impact is considered significant because the mitigation may not fully mitigate the impact in all situations and there are no other feasible mitigation measures at this time. Impacts remain significant and unavoidable.

The Plan Amendments may also result in significant recreation impacts related to actions others could take in response to or to comply with the Plan Amendments, particularly surface water transfers, water supply desalination, new surface water supplies, physical barriers in the southern Delta, new source water supplies for

wastewater treatment plants, salinity pretreatment programs, and desalination of wastewater treatment plant effluent. Many of the significant recreation impacts are related to construction activities potentially affecting or displacing recreational facilities during temporary construction activities and indirect effects associated with construction activities, such as generating noise, that could temporarily impact recreational resources. However, some significant impacts are related to the potential inundation or removal of recreational facilities as a result of operational activities. For example, the operation of water supply desalination facilities could potentially result in conflicts with established recreational uses, which would be a significant recreation impacts. However, this impact could be avoided or mitigated through design and operation, regulatory compliance, and project-specific mitigation. These types of significant impacts are described in Chapter 16 or Appendix H, *Supporting Materials for Chapter 16*, including in the following locations: Section 16.2.1, *Transfer/Sale of Surface Water*, Section 16.2.6, *Water Supply Desalination*; and Tables 16-11b, 16-21, 16-25, 16-28, and 16-30.

The Final SED identifies mitigation measures for significant recreation impacts in Chapter 16 and Appendix H, including in Tables 16-38 and 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on recreation. Consequently, while some impacts could be reduced to a less-than-significant level other public agency conditions of approval, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable.

With respect to significant recreation impacts from water transfers, the State Water Board has authority when considering transfer petitions, to ensure that reservoir levels in the upper watersheds do not cause significant recreation impacts, unless doing so would be inconsistent with applicable laws. This mitigation is adopted and included in the Mitigation and Monitoring Program. Even with this type of mitigation, however, the impact is considered significant because the mitigation may not fully mitigate the impact in all situations and there are no other feasible mitigation measures at this time. Impacts remain significant and unavoidable.



## Transportation and Traffic

**Finding:** The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on transportation and traffic.

**Explanation:** The Plan Amendments may result in significant impacts on traffic and transportation related to actions others could take in response to or to comply with the Plan Amendments, particularly with respect to substitution of surface water with groundwater, recycled water sources for water supply, in-Delta diversion, water supply desalination, new surface water supplies, floodplain and riparian habitat restoration, new source water supplies for wastewater treatment plants, salinity pretreatment programs, desalination of wastewater treatment plant effluent, and low-lift pumping stations. Many of the significant impacts related to transportation and traffic are related to worker trips or changes in traffic patterns or access to public transportation facilities (e.g., bike lanes, bus stops) from construction activities. Increases in construction worker trips in urban areas known to already be congested (e.g., substitution of surface water with groundwater, recycled water sources for water supply, or new source water supplies for wastewater treatment plants) or generation of substantial numbers of worker trips (e.g., new surface water supplies) during construction could result in significant impacts on transportation and traffic. In addition, construction activities may have the potential to result in inadequate emergency access, hazards to, or on, roadways, or interfere with bike lanes or public transportation access because these activities could potentially block lanes, change traffic patterns, or block or temporarily remove bike lanes or public access to bus stops. Vehicle trips would be generated under operating conditions for some of the activities, such as those associated with recreational facilities at new surface water reservoirs or those generated as a result of disposing of brine or other processing byproduct generated by different facilities (e.g., wastewater desalination, salinity pretreatment). Trips generated could potentially exceed level of service or vehicle trip miles thresholds established by local or regional transportation plans or transportation authorities, resulting in significant transportation and traffic impacts. These types of significant impacts on traffic and transportation are described in Chapter 16, including in the following locations: Section 16.2.5, *In-Delta Diversions*; Section 16.2.6, *Water Supply Desalination*; Section 16.4.6, *Low Lift Pumping Stations*; and Tables 16-7, 16-10, 16-11b, 16-12, 16-25, 16-28, and 16-30.

The Final SED identifies mitigation measures for impacts related to transportation and traffic in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Tables 16-38 and 16-39. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the

degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on related to transportation and traffic. Consequently, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable.

## **Service Providers and Utilities and Service Systems**

Finding: The State Water Board hereby makes findings (a)(1), (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on service providers and utilities and service systems.

Explanation: The Plan Amendments would potentially require or result in the construction of new water supply facilities or wastewater treatment plants or expansion of existing facilities, the construction and operation of which could cause significant environmental effects, as set forth in Chapter 13, *Service Providers*, and Chapter 16. Under the Plan Amendments, average surface water diversion reductions on the Stanislaus, Tuolumne, and Merced Rivers are expected to be approximately 12 percent, 14 percent and 16 percent, respectively. The extent to which service providers that primarily rely on surface water are affected by a reduction in surface water diversions is a function of their ability to develop alternative water supplies or rely on their current existing alternative supplies. Service providers in the plan area and the extended plan area that rely heavily or primarily on surface water diversions to supply water to their service areas could experience significant reductions in water supply, depending on various case-specific factors, such as the mechanism by which they receive their water. Further, because of the substantial reduction of surface water supply on the rivers, it is expected that there could be a substantial depletion of groundwater supplies in the Modesto, Turlock, and Extended Merced Subbasins, as disclosed in Chapter 9, *Groundwater Resources*. This, in turn, could affect service providers or private groundwater users in these subbasins who rely heavily or primarily on groundwater resources for municipal and domestic uses. These entities could experience significant reductions in their groundwater supply. These surface water and groundwater supply reductions could potentially require service providers to construct new and expanded water supply or facilities, the construction and operation of which could result in significant environmental impacts. In addition, to comply with the Plan Amendments, publicly owned treatment works (POTWs) treating wastewater may construct new waste treatment facilities or expand existing facilities, the construction and operation of which could result in significant environmental impacts.

Identifying the exact nature of the new and expanded facilities potentially needed by service providers to replace potentially reduced surface water and groundwater supplies is speculative, but the reasonably foreseeable new and expanded facilities include: new and expanded infrastructure, if needed, to convey water obtain through water transfers or sales from other entities or watersheds; new and expanded groundwater well(s) and distribution infrastructure (e.g., underground pipes) and infrastructure to treat groundwater, if needed; new and expanded conjunctive groundwater use program(s), which could use available capacity in unlined canals and agricultural fields that are not in production to recharge groundwater basins during high flow events; new and expanded facilities at existing POTWs and distribution infrastructure (e.g., underground pipes) to increase the supply of recycled water as a possible source of water; in-Delta diversions; new water supply desalination facilities; and new surface water reservoir and distribution infrastructure. To comply with the Plan Amendments, POTW actions include new and expanded infrastructure to support new source water supplies; new and expanded salinity pretreatment programs that could include modifications to existing industrial facilities such that waste is treated prior to discharge in the sewer system or a residential educational program resulting in removal of water softeners; and new and expanded salinity removal facilities at POTWs, which could include modification to existing wastewater treatment plants such that salinity is removed from effluent prior to discharge (e.g., reverse osmosis). Depending on the location and particular construction and operational requirements, construction and operation of the new and modified facilities described above could result in significant environmental impacts, as set forth in Chapter 16, Section 16.2.1, *Transfer/Sale of Surface Water*, Section 16.2.2, *Substitution of Surface Water with Groundwater*, and Table 16-7; and Table 16-9; Section 16.2.4, *Recycled Water Sources for Water Supply*, and Table 16-10; Section 16.2.5, *In-Delta Diversions*; Section 16.2.6, *Water Supply Desalination*; Section 16.2.7, *New Surface Water Supplies*, and Table 16-11b; Section 16.4.1, *New Source Water Supplies*, and Table 16-25; Section 16.4.2, *Salinity Pretreatment Programs*, and Table 16-28; and Section 16.4.3, *Desalination*, and Table 16-30.

Although the exact scope and scale of impacts cannot be determined because identifying the exact nature of the new and expanded facilities is speculative, the Final SED provides possible mitigation measures—for example, those identified in Table 16-38—that would likely reduce potentially significant impacts on the environment. The authority to determine and require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. As such, it is infeasible for the State Water Board to impose the mitigation measures in the Final SED. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Chapter 16, or Appendix H,

of the Final SED, including in Table 16-38, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. Consequently, while some impacts could be reduced to a less-than-significant level by other public agency conditions of approval, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts associated with the above-identified actions remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and impacts would remain significant and unavoidable.

With respect to the significant impacts from the construction and operation of reverse-osmosis treatment facilities to remove salts in POTW effluent, the State Water Board has made changes to the Plan Amendments to find that reverse-osmosis treatment of POTW wastewater discharges is currently not a feasible technology for controlling salinity in the southern Delta in consideration of the factors under Water Code section 13241. These significant impacts, therefore, would not occur unless it becomes feasible for a POTW to comply with water quality based effluent limitations for salt, in which case the significant impacts could occur.

Reductions in groundwater levels in response to the Plan Amendments may also result in significant impacts related to violating water quality standards such that drinking water quality from private domestic wells could be affected. Reductions in groundwater could affect the direction of groundwater flow and localized groundwater contamination could move in undesirable directions, potentially affecting groundwater as a source for drinking water. Mitigation measures for owners and operators of domestic wells are set forth in Chapter 13. In addition, local agencies, who have jurisdiction and responsibility for groundwater management, can and should exercise their police powers and groundwater management authority under SGMA to address groundwater contamination to prevent and mitigate drinking water impacts on domestic wells. SGMA requires local groundwater agencies to address “significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.” (Wat. Code, § 10721, subd. (x)(4).) There is no other feasible mitigation measure that the State Water Board can require at this time. It does not regulate private domestic wells to ensure treatment of groundwater supplies. The SGMA deadlines for state intervention are still largely prospective; therefore, State Water Board mitigation under SGMA to protect the groundwater basins from the indirect impacts of the Plan Amendments is currently infeasible. Due to the inherent uncertainty in the degree to which local agencies with jurisdiction and responsibility over groundwater management, as well as owners and operators, will implement the

mitigation measures identified in the Final SED, impacts remain significant and unavoidable.

The Plan Amendments may also result in significant utility and service system impacts from actions others could take in response to or to comply with the Plan Amendments because they could require or result in the construction and operation of new water treatment facilities related to the substitution of surface water with groundwater, recycled water sources for water supply, in-Delta diversion, water supply desalination, new surface water supplies, new source water supplies for wastewater treatment plants, salinity pretreatment programs, and desalination of wastewater treatment plant effluent. These significant impacts are described in Chapter 16, including in the following locations: Section 16.2.5, *In-Delta Diversions*; Section 16.2.6, *Water Supply Desalination*; and Tables 16-7, 16-10, 16-11b, 16-25, 16-28, and 16-30. The Final SED identifies mitigation measures for these impacts in Chapter 16 and Appendix H; for example, these include mitigation measures identified in Tables 16-38. The authority to determine and require site- or project-specific mitigation for these future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts on utility and service system impacts. Consequently, while most impacts could be reduced to a less-than-significant level by other public agency conditions of approval, the State Water Board takes a conservative approach in its post-mitigation significance conclusion and finds the impacts on this resource associated with the above-identified actions remain significant and unavoidable.

## Cumulative Findings

The State Water Board, having reviewed and considered the information contained in the administrative record, finds the contributions of the Plan Amendments to the following significant cumulative environmental impacts to be cumulatively considerable and unavoidable. This information is compiled the Final SED, including Chapter 16, Section 16.7, *Cumulative Impacts*; Tables 17-3, *Summary of CEQA Significance Determinations for Cumulative Impacts in the Plan Area*, and 17-4, *Summary of CEQA Significance Determinations for Cumulative Impacts in the Extended Plan Area*; and Section 17.2, *Cumulative Impacts*. The State Water Board hereby makes findings, as stated in the State CEQA Guidelines Section 15091 and as required by Public Resources Code Section 21081.

## Aesthetics

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant cumulative impacts on aesthetics.

Explanation: Reductions in reservoir levels could increase the frequency with which the non-vegetated ring around the perimeter of reservoirs upstream of the rim dams would potentially be exposed, and would potentially thereby affect aesthetics in the extended plan area as set forth in Chapter 17, Section 17.2.2, *Cumulative Impact Analysis*. This effect would be more pronounced in reservoirs upstream of the rim dams because those reservoirs are smaller and, thus, would be cumulatively significant when considered with past, present, and reasonably foreseeable projects. Further, drawdown in upstream reservoir storage in the extended plan area could result in reduced flows in the fall on the Stanislaus and Tuolumne Rivers. If flows are reduced such that sensitive viewers (e.g., recreationists) cannot see water in the river, the river becomes less of a defining feature of the overall landscape. This could substantially degrade the visual character and quality of views of the Tuolumne River, many parts of which have been designated wild and scenic, and the Stanislaus River, which can be viewed from Scenic Highways 108 and 4. The incremental contribution would be cumulatively considerable when viewed in connection with the effects of other projects, particularly considering the visual sensitivity and characteristics of the area, and the cumulative impact on aesthetics would be significant.

As provided in the Plan Amendments, the State Water Board will manage flows to avoid significant adverse impacts to fish and wildlife beneficial uses at other times of year, including by imposing minimum reservoir carryover storage targets or other requirements or by allowing a portion of the February through June flows to be released after June. These actions could result in additional flows in the fall and limit impacts. Providing more flows in the fall beyond the flows required or allowed under the Plan Amendments to mitigate these types of aesthetic effects is infeasible, however, because it is counter to the Plan Amendments' purpose, which is to provide February to June flows that more closely mimic the natural hydrograph while avoiding significant adverse impacts to fish and wildlife beneficial uses at other times of the year. The Final SED also proposes a mitigation measure for the State Water Board to implement in Section 10.4.4, *Impacts and Mitigation Measures: Extended Plan Area*: When considering carryover storage and other requirements to implement the flow water quality objectives in a water right proceeding, the State Water Board shall ensure that reservoir levels upstream of the rim dams do not cause significant recreation and aesthetic impacts, unless doing so would be inconsistent with applicable laws. This mitigation is adopted and included in the Mitigation and Monitoring Program; however, even with this mitigation, the cumulative impact is considered significant because the mitigation may not fully

mitigate the impacts on aesthetic resources in all situations and there are no other feasible mitigation measures at this time. Cumulative impacts remain significant and unavoidable.

Significant cumulative impacts on aesthetics and visual resources from the long-term operation of new or expanded facilities could occur as a result of other projects with related effects, as set forth in Chapter 16, Section 16.7, *Cumulative Impacts*. Other potential cumulative aesthetic effects would depend on the location of the action, how intact and complete the visual character is of the location, and the types of sensitive viewers (e.g., recreationists) that may experience a change in the view. New facilities or structures could affect the visual character and quality of the surrounding area depending on the presence or absence of other permanent structures and the type (e.g., size, bulk) of the permanent structures. If actions are implemented in areas without existing infrastructure, and in existing natural landscapes, the size and scale of new infrastructure could result in a substantial degradation of the surrounding visual character or quality. Construction activities could create temporary light and glare during potentially necessary nighttime construction periods. Similarly, operation of facilities could result in new sources of light or glare, which, when in combination with proximity to existing facilities, could result in substantial increases in light or glare and result in cumulatively considerable impacts. While the mitigation measures identified in the Final SED (e.g., Table 16-38 and 16-39) can help reduce significant cumulative impacts, the authority to require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. As such, it is infeasible for the State Water Board to impose the mitigation measures in the Final SED. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Appendix H and Chapter 16 of the Final SED, including in Table 16-38 and 16-39, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. Operation of projects (e.g., new surface water supplies) that permanently convert large landscapes with scenic views, scenic highways, or wild and scenic rivers would result in cumulative impacts. Permanent changes of this nature and magnitude could not be mitigated, and impacts would be cumulatively considerable. Consequently, cumulative impacts would be significant and unavoidable.

## **Agricultural Resources and Forest Resources**

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines

section 15091, for significant cumulative impacts on agricultural resources and forest resources.

Explanation: Significant cumulative impacts from the construction or operation of new or expanded facilities could occur as a result of the Plan Amendments and other projects with related effects, as set forth in Chapter 16, Section 16.7, *Cumulative Impacts*, and Chapter 17, Section 17.2.2, *Cumulative Impact Analysis*, as a result of potential conversion of designated farmland to nonagricultural uses, or a permanent conversion of designated farmland or forestland to a non-agricultural or non-forested use (e.g., habitat restoration or water supply infrastructure). As discussed in Section 16.7, *Cumulative Impacts*, and Section 17.2.2, *Cumulative Impact Analysis, Agricultural Resources*, there is a general recent trend of designated farmland being permanently removed from production and converted to non-agricultural uses. As discussed in the Final SED, many factors affect the ultimate conversion of designated farmland to nonagricultural uses, particularly whether or not it is urbanized, but it is reasonable to assume that a portion of the designated farmland losing irrigation could be converted to nonagricultural uses (Chapter 11, *Agricultural Resources*, Section 11.4.2, *Methods and Approach*). Activities resulting in the permanent removal of designated farmlands would be cumulatively considerable because of the permanent conversion of designated agricultural lands to nonagricultural uses. The Final SED identifies mitigation measures (e.g., Chapter 11, Chapter 17, Table 16-38, and Table 16-39). While the mitigation measures identified in the Final SED can help reduce significant cumulative impacts, the authority to require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. As such, it is infeasible for the State Water Board to impose the mitigation measures in the Final SED. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in the Final SED, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. If permanent loss of designated farmland occurs because designated farmland acreage is permanently converted to nonagricultural use, impacts would be cumulatively considerable, when considering the larger context for the loss of designated farmland. There is therefore no feasible mitigation that would reduce the cumulatively considerable contribution. Cumulative impacts remain significant and unavoidable.



## Air Quality

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant cumulative impacts on air quality.

Explanation: Significant cumulative impacts from the long-term operation of new or expanded facilities could occur as a result of other projects with related effects, as set forth in Chapter 16, Section 16.7, *Cumulative Impacts*. As discussed in that section, air basins where potential actions could be located (i.e., SJVAB, MCAB, GBVAB) are in nonattainment for a variety of air pollutants (e.g., ozone, PM<sub>2.5</sub>, PM<sub>10</sub>). As such, regularly operating new equipment could generate long-term air quality emissions that contribute to nonattainment because of the daily operation of different facilities, in different locations over the lifetime of the facility. In addition, if numerous truck trips are required under operating conditions to transport materials, the number of trucks, duration of the trips generated, and travel routes could result in cumulative air quality impacts within these air quality basins or others that are in nonattainment. While the mitigation measures identified in the Final SED (e.g., Table 16-38) can help reduce these significant cumulative impacts, the authority to require site- or project-specific mitigation for future new or expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Chapter 16 of the Final SED, including in Table 16-38, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. Cumulative impacts remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and cumulative impacts remain significant and unavoidable.

## Biological Resources

Finding: The State Water Board hereby makes findings (a)(1), (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant cumulative impacts on aquatic and terrestrial biological resources.

### Aquatic

Significant cumulative aquatic biological resource impacts related to changes in reservoir elevation levels or reductions in river flow above the rim dams could occur as a result of the Plan Amendments and other projects with similar effects, as set

forth in Chapter 17, Section 17.2.2, *Cumulative Impact Analysis*. These projects could modify the flow regime in the extended plan area, particularly on the Stanislaus and Tuolumne Rivers. Changes in the storage requirements or operation of the reservoirs could significantly affect aquatic species. These past, present, and reasonably foreseeable future projects could store and then release water in the summer and fall, when the Plan Amendments may result in reduced flows, particularly in the fall, as a result of earlier bypasses in the year. If this were to occur, there would likely be increases in water temperature and reductions in overall available aquatic habitat. Cumulative impacts on aquatic biological resources in the extended plan area would be significant. There is no other feasible mitigation measure beyond what is proposed in Section 7.4.4, *Impacts and Mitigation Measures: Extended Plan Area*, to reduce this impact to less-than-significant levels and, therefore, the cumulative impact would remain cumulatively significant and unavoidable.

Significant cumulative aquatic biological resource impacts related to either permanent removal or disturbance of species or habitats in areas with existing species or habitats, as described in Chapter 16, Section 16.7, *Cumulative Impacts*, could occur during construction or operation of indirect actions, non-flow measures, or methods of compliance. Construction may permanently remove or substantially degrade sensitive habitat, remove aquatic species, and result in take of threatened or endangered species because of the potential mechanisms used in construction (e.g., building cofferdams) for different indirect activities (e.g., installation of fish screens or enhancing in-channel complexity). Operation of facilities located within the water (e.g., desalination facilities) could result in effects on aquatic species if they present continual degradation or on-going effects on existing special-status aquatic species or habitat. The Final SED identifies potential mitigation measures, including monitoring and adaptive management, which could be implemented to assess the effects of operations on biological resources and guide adjustments to operation (e.g., Appendix H; Tables 16-38 and 16-39). While the mitigation measures identified in the Final SED can help reduce significant cumulative impacts, the authority to require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Chapter 16 and Appendix H of the Final SED, including in Table 16-38 and 16-39, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. If permanent loss or disturbance of aquatic species or habitat occurs, there is no feasible mitigation that would reduce the cumulatively considerable contribution of the

indirect actions, non-flow measures, or methods of compliance to a less-than significant level. Cumulative impacts remain significant and unavoidable.

## **Terrestrial**

Similar to the impacts described above for aquatic biological resources, significant cumulative terrestrial biological resource impacts related to reservoir elevation reductions and reductions in river flow upstream of the rim dams could occur as a result of the Plan Amendments and other projects with similar effects, as set forth in Chapter 17, Section 17.2.2, *Cumulative Impact Analysis*. The upstream reservoirs could experience substantial changes in reservoir volumes and surface water elevations. In addition, channel flows in the extended plan area could decrease during the fall relative to baseline conditions because reservoirs have more open storage to fill. These changes could potentially result in reduced habitat conditions for terrestrial species along channel banks and at reservoir shorelines. This would result in a significant cumulative impact upstream in the extended plan area. There is no other feasible mitigation measure beyond what is proposed in Chapter 8, Section 8.4.4, *Impacts and Mitigation Measures: Extended Plan Area*, to reduce this impact. Cumulative impacts related to terrestrial biological resources in the extended plan area remain cumulatively significant and unavoidable.

Significant cumulative terrestrial biological resource impacts related to permanent removal or disturbance of wildlife or plant species or habitats in areas with existing species or habitats, as described in Chapter 16, Section 16.7, *Cumulative Impacts*, could occur during construction or operation. Permanently removing or substantially degrading sensitive habitat or removing terrestrial species could result in cumulatively considerable effects depending on the extent of the removal and the extent of current loss native riparian vegetation along river systems, loss of wetlands, and loss of native habitat for plant and wildlife species and loss of species. While the mitigation measures identified in the Final SED (e.g., Table 16-38 and 16-39) can help reduce significant cumulative impacts, the authority to require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Chapter 16 and Appendix H of the Final SED, including in Table 16-38 and 16-39, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. If permanent loss or disturbance of terrestrial species or habitat occurs, there is no feasible mitigation that would reduce the cumulatively considerable contribution of the indirect actions, non-flow measures, or

methods of compliance to a less-than significant level. Cumulative impacts remain significant and unavoidable.

## Cultural Resources

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant cumulative impacts on cultural resources.

Explanation: Significant cumulative impacts on cultural resources (significant historical, archeological, or paleontological resources) or human remains from the construction and operation of new or expanded facilities could occur as a result of other projects with related effects, as set forth in Chapter 16, Section 16.7, *Cumulative Impacts*. Ground-disturbing activities associated with most of the actions evaluated in Chapter 16 could result in cumulatively considerable effects on cultural resources if implemented in combination with other ground-disturbing activities. Ground disturbance during construction can result in discovery of cultural resources and in the potential destruction of those resources. Implementation of potential mitigation measures for cultural resources identified in Appendix H and Tables 16-38 and 16-39 during construction would reduce the magnitude of these action's contribution to this impact. While the mitigation measures identified in Appendix H and Tables 16-38 and 16-39 would help reduce the magnitude of these significant cumulative impacts, the authority to require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdictions with other public agencies with discretionary authority, such as city or county governments. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Chapter 16 and Appendix H to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including those in the Final SED that may ultimately be implemented to reduce potentially significant impacts. Even with implementation of all applicable mitigation measures by lead agencies or third-parties, impacts would remain cumulatively considerable when viewed in combination with similar impacts in the area given the potential expansive and large-scale ground-disturbing activities associated with construction of new surface water reservoirs (Section 16.2.7, *New Surface Water Supplies*), which could result in the complete destruction of known or unknown cultural resources. Cumulative impacts remain significant and unavoidable.

## Geology and Soils

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant cumulative impacts on geology and soils.

Explanation: The operation of groundwater wells implemented as part of substitution of surface water with groundwater, combined with other projects with related effects as set forth in Chapter 16, Section 16.7, *Cumulative Impacts*, and Chapter 17, Section 17.2.2, *Cumulative Impact Analysis*, could result in continued or increased groundwater pumping at levels that could lead to overdraft conditions in the groundwater basin. This overdraft or depletion in groundwater could result in land subsidence (as discussed in the Cumulative Findings for *Groundwater Resources* contained herein), which would be a cumulatively considerable impact when considered with other similar impacts in the area. Under the SGMA framework, local agencies are tasked with protecting and managing high and medium priority groundwater basins, with state intervention to begin by specified dates if local agencies are unwilling or unable to manage. The SGMA deadlines for state intervention are still prospective; therefore, State Water Board mitigation to protect the groundwater basin from the indirect impacts of the Plan Amendments is infeasible at this time, but mitigation under local authorities is both feasible and required. Under the SGMA framework, local agencies are tasked with protecting and managing high and medium priority groundwater basins, with state intervention to begin by specified dates if local agencies are unwilling or unable to manage (see further discussion in the Cumulative Findings for *Groundwater Resources*). Cumulative impacts remain significant and unavoidable.

## Greenhouse Gases and Energy

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant cumulative impacts on GHGs and energy.

Explanation: No single project is likely to generate enough GHG emissions to cause an appreciable impact on climate change by itself; rather, climate change is the result of the GHG contributions of countless past, present, and future sources. However, GHG emissions from implementation of the Plan Amendments and other actions as set forth in Chapter 17, Section 17.2.2, *Cumulative Impact Analysis* and actions described in Chapter 16, Section 16.7, *Cumulative Impacts* (if they were to occur), would combine with GHG emissions in California, the United States, and the globe to cumulatively contribute to global climate change. It is unknown to what extent climate change would be affected by the incremental GHG emissions produced under the Plan Amendments or actions described in Chapter 16; however, the impact on GHG and climate change would be cumulatively considerable. As

discussed in Chapter 14, Section 14.4.4, *Impacts and Mitigation Measures: Extended Plan Area*, the Plan Amendments could affect energy (i.e., hydropower electrical production) resources in upstream reservoirs on the Stanislaus and Tuolumne Rivers. Consequently, there could be significant hydropower production reductions at reservoirs under the Plan Amendments, which could result in related adverse GHG emission if hydropower is replaced with non-renewable energy sources. Given that GHG emissions are cumulatively considerable as climate change is the result of the individual GHG contributions of countless sources, the Plan Amendments would result in cumulatively considerable GHG impacts.

There are no feasible mitigation measures beyond what is in Section 14.4.4 and Chapter 16 (e.g., Table 16-38 and 16-39) to reduce this cumulative impact to less-than-significant levels. Implementation of potential mitigation measures in the Final SED would result in lower GHG emissions levels; however, these mitigation measures would not completely eliminate GHG emissions. Furthermore, while the mitigation measures identified in the Final SED (e.g., Chapter 14, Table 16-38 and 16-39, and Appendix H) can help reduce significant cumulative impacts, the authority to require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Chapter 14, Chapter 16, and Appendix H, including in Table 16-38 and 16-39, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. Cumulative impacts remain significant and unavoidable.

## Hydrology and Water Quality

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant cumulative impacts on hydrology and water quality.

Explanation: Significant cumulative impacts from the operation of new or expanded facilities could occur and other projects with related effects, as set forth in Chapter 16, Section 16.7, *Cumulative Impacts*. Whether a particular action will take place, as well as its location, scope, timing, and magnitude are speculative and unknowable. However, there could be potential cumulative impacts on hydrology and water quality when considering actions third parties could undertake under the Plan Amendments with other projects with similar impacts. Specifically, substantial and permanent effects on hydrology and water quality could occur due to the alteration of a river through the development and operation of substantial infrastructure projects

(e.g., new surface water reservoirs). The Final SED includes potential mitigation measures for impacts on hydrology and water quality (e.g., Table 16-38). The authority to determine and require site- or project-specific mitigation for these potentially large future actions is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority can and should implement the mitigation measures identified in the Final SED to the degree feasible. Because the authority to require project-level mitigation lies with public agencies with discretionary authority for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant cumulative impacts. In addition, while potential mitigation measures, including those in Table 16-38, alternative locations, or alternative project designs could reduce cumulative effects, given the potential size and scale of these infrastructure projects, impacts remain cumulatively considerable and significant.

## Groundwater Resources

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on groundwater.

Explanation: The Plan Amendments could result in significant cumulative groundwater impacts related to substantially depleting groundwater supplies or substantially interfering with groundwater recharge and to increasing the likelihood of subsidence as a result of groundwater depletion when considered with other projects with related impacts, as discussed in Chapter 17, Section 17.2.2, *Cumulative Impact Analysis*. The Final SED includes mitigation measures to reduce or avoid groundwater impacts (for example, identified in Section 9.4.3, *Impacts and Mitigation Measures*); however, under the SGMA framework, local agencies are tasked with protecting and managing high and medium priority groundwater basins, with state intervention to begin by specified dates if local agencies are unwilling or unable to manage. The SGMA deadlines for state intervention are still prospective; therefore, State Water Board mitigation to protect the groundwater basin from the indirect impacts of the Plan Amendments is infeasible at this time, but mitigation under local authorities is both feasible and required. Thus, at this time, local agencies are vested with the mandatory duty to achieve sustainable groundwater management, which includes not causing undesirable results such as significant and unreasonable reduction of groundwater storage, degradation of water quality, and subsidence. Therefore, these local agencies with authority over groundwater subbasins can and should exercise their full authorities to address these impacts, under both SGMA and their police powers. Under those authorities, they can and should also implement those mitigation measures identified in the Final SED. Doing so would

prevent groundwater depletion, water quality impacts, and subsidence or would mitigate those impacts.

The State Water Board has several authorities that are independent of SGMA, including authority to take action to prevent waste, unreasonable use, unreasonable method of use, and unreasonable method of diversion of water. The State Water Board may exercise this authority through adjudicative or quasi-legislative proceedings. However, it is infeasible for the State Water Board to impose mitigation measures to prevent waste and unreasonable use at this time because it is undertaking a programmatic analysis of the potential groundwater resource impacts and does not have specific facts associated with an individual project to legally and technically apply requirements to prevent waste and unreasonable use in an adjudicative proceeding. In addition, while the State Water Board may impose water conservation or efficiency requirements through the adoption of regulations, recently-enacted legislation already requires the State Water Board to set long-term standards for efficient use of water for residential, commercial and other urban uses on or before June 30, 2022. (Wat. Code, § 10609.2, as added by Stats. 2018, ch. 15, § 7.) The amount of time, high cost, and commitment of staff resources that would be associated with rule-making proceedings to set additional conservation or efficiency standards for agricultural use renders adopting the mitigation measures currently infeasible. Adopting regulations at this time would require considerable staff time to research, formulate and develop, require extensive stakeholder outreach, and require numerous public meetings before the regulations would take effect. The State Water Board currently has limited resources to pursue adoption of such regulations as most of its budget for the water right program is supported by fees imposed on water right permit and license holders and is used for program activities related to the diversion and use of water subject to the permit and license system. Only a small amount of funding is available for other regulatory activities, and it is speculative to anticipate that additional funding will be made available.

There are no other feasible mitigation measures to reduce cumulative groundwater impacts. Due to the infeasibility of mitigation by the State Water Board at this time and the inherent uncertainty in the degree to which mitigation identified in the Final SED may be implemented by local agencies, particularly in the near-term, cumulative impacts on groundwater resources remain significant and unavoidable.

## **Hazards and Hazardous Materials**

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant cumulative impacts on hazards and hazardous materials.



**Explanation:** Significant cumulative impacts from construction or operation of new or expanded facilities on hazards and hazardous materials could occur as a result of other projects with related effects, as set forth in Chapter 16, Section 16.7, *Cumulative Impacts*, depending on the location of the activity and proximity to other activities with similar impacts. Construction activities may disturb known or unknown hazardous materials in soil or groundwater depending on the type of ground disturbing activity, the type of activity, and location; however, mitigation measures identified in the Final SED, including those in Chapter 16, such as Table 16-38, would reduce impacts to a less-than-cumulatively considerable level because materials would be remediated and removed if they were discovered. However, if mitigation measures are not incorporated by lead agencies or third-parties, impacts would be cumulatively considerable. Activities that involve the regular handling and transport of hazardous materials could result in a cumulatively considerable impact if they do so in conjunction with many other projects that also handle and transport hazardous materials. While the mitigation measures identified in the Final SED (e.g., Table 16-38 and 16-39) can help reduce these significant cumulative impacts, the authority to require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Chapter 16, including in Tables 16-38 and 16-39, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. Cumulative impacts remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and cumulative impacts remain significant and unavoidable.

## Mineral Resources

**Finding:** The State Water Board hereby makes findings (a)(2), and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant cumulative impacts on mineral resources.

**Explanation:** Significant cumulative impacts from operation of new surface water supplies (e.g., reservoirs) or gravel augmentation would occur on mineral resources as a result of other projects with related effects, as set forth in Chapter 16, Section 16.7, *Cumulative Impacts*. Projections indicate mineral resources, particularly aggregate, is decreasing overall as population increases, which is putting pressure on existing mineral sources along the Stanislaus, Tuolumne, and Merced Rivers.

Permanent removal of additional mineral resources, particularly under gravel augmentation and new surface water supplies, would be cumulatively considerable when considered with other similar impacts in the area. While the mitigation measures identified in the Final SED (e.g., Table 16-38 and 16-39) can help reduce these significant cumulative impacts, the authority to require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Chapter 16, including in Tables 16-38 and 16-39, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. Cumulative impacts remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and cumulative impacts remain significant and unavoidable.

## Noise

Finding: The State Water Board hereby makes findings (a)(2) and (a)(3), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on noise.

Explanation: Significant cumulative noise impacts related to increases in permanent noise could result if the noise occurs in areas with other facilities that generate noise, as described in Chapter 16, Section 16.7, *Cumulative Impacts*. It is anticipated that noise generated by facilities would be reduced and dampened through actions described in Tables 16-38 and 16-39; unless these measures are implemented, impacts would be cumulatively considerable, depending on the proximity to other permanent noise-generating facilities. While the mitigation measures identified in the Final SED (e.g., Tables 16-38 and 16-39) can help reduce these significant cumulative impacts, the authority to require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Chapter 16, including in Tables 16-38 and 16-39, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. Cumulative

impacts remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and cumulative impacts remain significant and unavoidable.

## Recreational Resources

Finding: The State Water Board hereby makes findings (a)(1), (a)(2), and (a)(3) (described above), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant impacts on recreation.

Explanation: Significant cumulative recreation impacts related to more frequent inundation and physical deterioration of existing on-bank recreational facilities in the plan area and extended plan area would occur as a result of the Plan Amendments and other projects with related effects, as set forth in Chapter 17, Section 17.2.2, *Cumulative Impact Analysis*. As provided in the Plan Amendments, the State Water Board will manage flows to avoid significant adverse impacts to fish and wildlife beneficial uses at other times of year, including by imposing minimum reservoir carryover storage targets or other requirements or by allowing a portion of the February through June flows to be released after June. These actions could result in less flows at times and limit impacts. Reducing flows below the flows required or allowed under the Plan Amendments could mitigate the potential impacts, but is infeasible because it is counter to the Plan Amendments' purpose, which is to provide February to June flows that more closely mimic the natural hydrograph while avoiding significant adverse impacts to fish and wildlife beneficial uses at other times of the year. The Final SED includes other mitigation measures for owners and operators of recreational facilities to implement, but the State Water Board lacks authority to require them. The Final SED also proposes a mitigation measure for the State Water Board to implement in Section 10.4.4, *Impacts and Mitigation Measures*: When considering carryover storage and other requirements to implement the flow water quality objectives in a water right proceeding, the State Water Board shall ensure that reservoir levels upstream of the rim dams do not cause significant recreation and aesthetic impacts, unless doing so would be inconsistent with applicable laws. This mitigation is adopted and included in the Mitigation and Monitoring Program; however, even with this mitigation, the cumulative impact is considered significant because the mitigation may not fully mitigate the impact in all situations and there are no other feasible mitigation measures at this time. Cumulative impacts remain significant and unavoidable.

There may also be significant cumulative impacts from projects (e.g., new surface water reservoirs) that permanently alter or remove highly specialized or designated recreational resources, such as white-water rafting. Depending on type of existing activity and whether it is relatively limited in time and geography, the loss of that opportunity may be cumulatively considerable and could not be mitigated given the

potential complete loss of the recreational resource. Cumulative impacts remain significant and unavoidable.

## **Service Providers and Utilities and Service Systems**

Finding: The State Water Board hereby makes findings (a)(2), and (a)(3) (described above), as required by Public Resources Code section 21081 and State CEQA Guidelines section 15091, for significant cumulative impacts on service providers.

Explanation: Significant cumulative impacts from the construction or operation of new water supply or wastewater treatment facilities or expansion of existing facilities would occur as a result of the Plan Amendments and other projects with related effects, as set forth in Chapter 16, Section 16.7; and Chapter 17, Section 17.2.2, *Cumulative Impact Analysis*. While the mitigation measures identified in the Final SED (e.g., Table 16-38) can help reduce these significant cumulative impacts, the authority to require site- or project-specific mitigation for future new and expanded facilities is within the responsibility and jurisdiction of other public agencies with discretionary approval authority, such as city or county governments. Public agencies with authority and responsibility for approving project-specific new or modified facilities can and should implement the mitigation measures identified in Chapter 16 of the Final SED, including in Table 16-38, to the degree applicable and feasible. Because the authority to require project-level mitigation lies with other public agencies for individual projects, there is inherent uncertainty in the degree of mitigation, including that in the Final SED, which may ultimately be implemented to reduce potentially significant impacts. Cumulative impacts remain significant and unavoidable. In addition, some project-level actions may not require discretionary approvals by a public agency, in which case it would not be feasible to impose the identified mitigation measures, and cumulative impacts remain significant and unavoidable.

Significant cumulative impacts on drinking water quality from domestic wells would also occur from increased groundwater pumping in the Extended Merced, Modesto, and Turlock Subbasins as a result of the Plan Amendments and other projects with related groundwater effects, as discussed in Chapter 17, Section 17.2.2.

Reductions in groundwater could affect the direction of groundwater flow and localized groundwater contamination could move in undesirable directions, potentially affecting groundwater that is a source for drinking water. The mitigation measures for owners and operators of domestic wells are set forth in Chapter 17, Section 17.2.2. In addition, local agencies can and should exercise their police powers and groundwater management authority under SGMA to address groundwater contamination to prevent and mitigate drinking water impacts on domestic wells. SGMA requires local groundwater agencies to address “significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.” (Wat. Code, § 10721, subd. (x)(4).) There is no

feasible mitigation that the State Water Board can impose because it does not regulate private domestic wells to ensure treatment of groundwater supplies. The SGMA deadlines for state intervention are still largely prospective; therefore, State Water Board mitigation under SGMA to protect the groundwater basins is currently infeasible. Due to the inherent uncertainty in the degree to which local agencies and owners and operators will implement the mitigation measures identified in the Final SED, cumulative impacts on service providers related to groundwater quality remain significant and unavoidable.

## Findings Regarding Alternatives

The State Water Board must make findings with respect to the alternatives to the Plan Amendments considered in the Final SED, evaluating whether these alternatives could feasibly avoid or substantially lessen the unavoidable significant effects. The State Water Board, having reviewed and considered the information contained in the Final SED and in accordance with Public Resources Code section 21081 and State CEQA Guidelines section 15091(a)(3), finds alternatives with fewer significant environmental impacts than the Plan Amendments are infeasible. “Specific economic, legal, social, technological, or other considerations” can make an alternative infeasible. (*Ibid.*) Other considerations include not meeting a project’s purposes and goals, as well as policy considerations.

LSJR Alternative 2, without adaptive implementation, has no significant and unavoidable impacts when compared to the Plan Amendments with respect to groundwater resources, recreational resources, aesthetics resources, agricultural resources, service providers, and energy and GHGs, as set forth in Chapter 9, Section 9.4; Chapter 10, Section 10.4; Chapter 11, Section 11.4; Chapter 13, Section 13.4; and Chapter 14, Section 14.4, of the Final SED. This is because baseline flows on the rivers are similar to the unimpaired flow (20 percent) that would be required by this alternative. Baseline flows do not reasonably protect fish and wildlife beneficial uses, accordingly LSJR Alternative 2 flows, which are similar to baseline flows do not meet the purposes and goals of the project, such as maintaining inflow conditions sufficient to support and maintain the natural production of viable fish populations; and providing flows in a quantity to achieve functions essential to native fishes, such as increased floodplain inundation, improved temperature conditions, improved migratory conditions, and the promotion of other conditions that favor native fish over nonnative fish (see the Executive Summary and Volume 1, Chapter 3, *Alternatives Description*, for project purposes and goals).

LSJR Alternative 2, with adaptive implementation, has less than significant impacts on energy and GHGs in the plan area compared to the Plan Amendments, as set forth in Chapter 14, Section 14.4.3, of the Final SED. This alternative, however, does not sufficiently meet the purposes and goals of the project related to

maintaining inflow conditions sufficient to support and maintain the natural production of viable native fish populations and to providing flows in a quantity to achieve functions essential to native fishes, such as increased floodplain inundation, improved temperature conditions, improved migratory conditions, and the promotion of other conditions that favor native fish over nonnative fish. For example, this alternative increases the frequency of attaining important April and May core juvenile rearing temperature targets by an average of 3 to 12 percent compared to baseline. It increases the total average annual floodplain inundation by 0 to 6 percent compared to baseline. For comparison purposes, LSJR Alternatives 3 and 4 provide an increase in attaining the temperature targets compared to baseline by an average of 12 to 21 percent and 21 to 25 percent, respectively. They provide an increase in total average floodplain inundation compared to baseline by 6 to 74 percent and 74 to 120 percent, respectively. In addition, the total volume and range of flows provided by this alternative, 20 to 30 percent of unimpaired flow, do not meet the project purpose and goal to allow adaptive implementation of flows that will afford maximum flexibility in establishing beneficial habitat conditions for native fish, addressing scientific uncertainty and changing conditions, developing scientific information that will inform future management of flows, and meeting biological goals while still reasonably protecting the fish and wildlife beneficial uses. The total volume and range of flows also do not foster scientific experiments that are intended to assess the benefits of different flow regimes (such as shifting or shaping the flows) that could occur under a wider range of more protective flows. This alternative is therefore infeasible to avoid the significant energy and greenhouse gas impacts of the Plan Amendments.

Under all of the LSJR alternatives, indirect actions and non-flow measure could occur (as disclosed in Chapter 16, Section 18.2.2, and Tables 18-6 and 18-7). While implementation of indirect actions and non-flow measures may be less likely under certain LSJR alternatives (e.g., LSJR Alternative 2, with or without adaptive implementation, given this alternative is more similar to baseline conditions when compared to other LSJR alternatives), the number or type of actions that could occur under each LSJR alternative cannot be predicted. The indirect actions and non-flow measures have been identified as having significant and unavoidable impacts. Since the potential combination of indirect actions and non-flow measures under the LSJR alternatives is unknown, so is the scope, magnitude, and location of the significant and unavoidable impacts. As such, it cannot be concluded that specific significant and unavoidable impacts would occur under one LSJR alternative when compared to another with respect to the indirect and non-flow actions.

SDWQ Alternative 3 would not result in significant and unavoidable impacts on service providers related to the construction or expansion of facilities at wastewater treatment facilities. Service providers in the southern Delta without existing Clean Water Act permit limits could likely meet the new effluent limitations if the Central

Valley Water Board implements the water quality objective specified in SDWQ Alternative 3. As described above in these findings, the Plan Amendments have been revised to state that reverse osmosis treatment of wastewater treatment plant effluent in the southern Delta is not currently a feasible technology for the purpose of controlling salinity in the southern Delta. As such, the Plan Amendments would, like SDWQ Alternative 3, not result in significant impacts from the need to construct and operate new, upgraded, or expanded facilities and infrastructure such as reverse osmosis treatment, unless circumstances change such that reverse osmosis treatment becomes feasible. SDWQ Alternative 3 avoids this impact altogether, but is not feasible because it does not meet the project purpose and goal to reasonably protect agricultural beneficial uses in the southern Delta. Nor does it take into consideration the water quality conditions that could be achieved through the coordinated control of all factors that affect water quality, as required under Water Code section 13241, because water quality better than the proposed salinity objective could be achieved.

Beyond the construction or expansion of facilities at wastewater treatment plants, to comply with the salinity water quality objectives and the program of implementation under both the Plan Amendments and SDWQ Alternative 3, the construction and operation of different facilities in the southern Delta could occur. Construction of such facilities could involve impacts on different resources (as set forth in Table 18-8 of Chapter 18). While many of these activities would result in no impacts or less-than-significant impacts on different resources, whether they actually do primarily depends on the location of the activity, the duration of the activity, and the ability of a lead agency to mitigate potentially significant impacts. As such, it cannot be concluded that a specific significant and unavoidable impact would occur under one SDWQ alternative when compared to another with respect to the other methods of compliance.

The No Project Alternative would have fewer groundwater resource impacts than the Plan Amendments; however, this alternative is not feasible because it does not meet the underlying fundamental project purpose and goal of the Plan Amendments to establish flow and salinity objectives to reasonably protect fish and wildlife and agricultural beneficial uses in the Lower San Joaquin River Watershed and the southern Delta, respectively. The current Bay-Delta Plan water quality objectives for the San Joaquin River do not reasonably protect fish and wildlife beneficial uses in the lower San Joaquin River watershed, and the State Water Board is required under the Porter-Cologne Water Quality Control Act (Wat. Code, § 13241) to adopt water quality objectives that reasonably protect beneficial uses. The No Project Alternative does not meet the purpose and goal to establish salinity objectives that are not lower than necessary to reasonably protect the most salt-sensitive crops. This alternative also does not meet other project purpose and goals, as set forth in Chapter 18.

## Statement of Overriding Considerations

CEQA prohibits an agency from approving a project that will have significant, unavoidable environmental impacts unless the agency adopts a statement describing the specific benefits provided by the project that will outweigh its expected unavoidable significant impacts on the environment. (Cal. Code Regs., tit. 14, § 15092, subd. (b).) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable significant environmental risks when determining whether to approve the project. If a project's benefits outweigh the unavoidable adverse environmental effects, those effects may be considered "acceptable." (Cal. Code Regs., tit. 14, § 15093.) This "statement of overriding considerations" must be supported by substantial evidence (*Id.*).

The State Water Board recognizes that the Plan Amendments would have significant unavoidable impacts on the environment, as addressed in the Final SED and identified above in the *Findings* section of this document. The specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, including region-wide or statewide environmental benefits, of the Plan Amendments outweigh the unavoidable significant environmental impacts of the Plan Amendments as follows:

1. The Plan Amendments would address the ecological crisis in the Bay-Delta and tributary watersheds where native fish face a high risk of extinction because too much water is being diverted. The Plan Amendments would provide increased flows critical to reasonably protecting native fish and restoring ecosystem functions, thus preventing further ecological collapse of Bay-Delta fisheries.
2. The Plan Amendments would result in temperature and floodplain habitat benefits for Central Valley fall-run Chinook salmon and steelhead, as well as for other native fish species, including other imperiled Bay-Delta species such as sturgeon and splittail. The Plan Amendments would also provide more flows that more closely mimic the natural hydrographic conditions, relative to baseline, to which native fish species have adapted, thus providing juvenile salmonids with additional space, time, and food resources necessary for required growth, development, and survival in the Stanislaus, Tuolumne, and Merced Rivers. This would improve the abundance, productivity, diversity, and spatial structure of the lower San Joaquin River basin and Central Valley fish populations.
3. The Plan Amendments would restore and protect the populations of migrating native fish throughout their lifecycles by requiring increased flows in the Stanislaus, Tuolumne, and Merced Rivers.



4. The Plan Amendments would update out-of-date requirements in the Bay-Delta Plan to reasonably protect fish and wildlife and agricultural beneficial uses in the lower San Joaquin River basin and the southern Delta, respectively.
5. The Plan Amendments are consistent with the Delta Plan's recommendation to protect, restore, and enhance the Delta ecosystem by updating water quality objectives as the Plan Amendments will help to achieve the coequal goals for the Delta by requiring flows sufficient to reasonably protect fish and wildlife beneficial uses in the Bay-Delta and high priority, salmon-bearing, tributaries.
6. The Plan Amendments would set the course for a more sustainable California by limiting diversions of surface water in the lower San Joaquin River basin consistent with the reasonable protection of instream beneficial uses, the public trust doctrine and the constitutional prohibition against waste, unreasonable use, or unreasonable method of use or diversion of water.
7. The Plan Amendments would allow for accurate, integrated planning of surface water and groundwater resources that does not trade impacts between the two. It sets forth the amount of surface water that must remain instream to protect fish and wildlife beneficial uses and the amount that is available for diversion for other beneficial uses. It ensures that groundwater sustainability planning is not based on outdated and unsustainable diversions of surface water.
8. The Plan Amendments would maximize the beneficial uses of water by ensuring that no more water is used to control salinity than is necessary to protect agricultural beneficial uses.
9. The Plan Amendments would also maximize the beneficial uses of water by improving salinity conditions in the southern Delta through the incidental benefits of increased flows afforded by implementation of the LSJR flow objectives. Increased spring flows would generally improve salinity conditions in the southern Delta, especially during the spring crop germination period. In addition, controlling salinity in the southern Delta is important to repel incoming seawater from the Pacific Ocean and San Francisco Bay to ensure freshwater in the Delta.
10. The Plan Amendments would provide for development and implementation of monitoring and modeling studies needed to better understand the characteristics of salinity conditions in the southern Delta and the dynamics of factors controlling or contributing to those conditions.

11. The Plan Amendments would establish a program of implementation to replace the protections that were intended to be obtained through the construction of permanent operable barriers envisioned by the South Delta Improvements Program that are no longer likely to be built because of endangered species concerns.