CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS FOR THE DELTA PLAN

I. INTRODUCTION

The Delta Stewardship Council ("Council"), as lead agency under the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000 *et seq*., has prepared the Final Program Environmental Impact Report for the Delta Plan (State Clearinghouse No. 2010122028) ("EIR"). The EIR is a program-level EIR pursuant to section 15168 of Guidelines for implementation of the California Environmental Quality Act ("State CEQA Guidelines").[1] The EIR consists of five volumes: the November 2011 Draft Delta Plan Program EIR ("Draft PEIR") (Volumes 1 and 2), the November 2012 Recirculated Draft Delta Plan Program EIR ("Recirculated Draft PEIR") (Volume 3), and the May 2013 Final Delta Plan Program EIR ("Final PEIR") (Volumes 4 and 5).

In determining to approve the proposed Delta Plan and related regulations implementing the Delta Plan ("Project" or "Delta Plan"), which is described in more detail in Section II, below), the Council makes and adopts the following findings of fact and statement of overriding considerations, and adopts and incorporates into the Project the mitigation measures identified in the EIR, all based on substantial evidence in the whole record of this proceeding ("administrative record"). Pursuant to section 15090(a) of the State CEQA Guidelines, the EIR was presented to the Council, and the Council reviewed and considered the information contained in the EIR prior to making the findings in Sections II through XV, below. The conclusions presented in these findings are based upon the EIR and other evidence in the administrative record.

II. PROJECT DESCRIPTION

As described fully in Section 2 of the Recirculated Draft PEIR, the Delta Plan is a comprehensive, long-term management plan for the Sacramento-San Joaquin Delta and the Suisun Marsh (collectively, "the Delta") that furthers achievement of the coequal goals defined in the Sacramento-San Joaquin Delta Reform Act of 2009 ("Delta Reform Act"), Water Code section 85000 *et seq*. The coequal goals are: (1) to provide a more reliable water supply for California and (2) to protect, restore, and enhance the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place. Water Code § 85054. The Delta Reform Act identifies types of plans, programs, and projects that are "covered actions" within the Council's jurisdiction. State and local agencies must determine which actions subject to their approval constitute covered actions, and must certify that those covered actions are consistent with the Delta Plan before they implement them. The Project consists of adoption of the Delta Plan; and adoption of regulations implementing the Delta Plan's policies.

[1] The State CEQA Guidelines are found at California Code of Regulations, Title 14, Section 15000 *et seq*.

As set forth in Section 2.1.9 of the Recirculated Draft PEIR, the project objectives for the Delta Plan are to:

> Further achievement of the coequal goals and the eight "inherent' objectives, in a manner that: (1) furthers the statewide policy to reduce reliance on the Delta in meeting the State's future water supply needs through regional self-reliance, (2) is consistent with specific statutory content requirements for the Delta Plan (Water Code sections 85302(c) through (e), and 85303-85308), (3) is implementable in a comprehensive, concurrent and interrelated fashion, and (4) is accomplished as rapidly as realistically possible without jeopardizing ultimate success.

The Delta Plan policies will become legally enforceable regulations. In addition to policies, the Delta Plan consists of recommendations, performance measures, and issues for future evaluation and coordination. Policies are mandatory and will have regulatory effect on state and local agencies proposing to implement covered actions. A covered action is any plan, program or project, which is defined as a project in Public Resources Code section 21065, that (1) will occur in whole or in part in the Delta (which includes the Suisun Marsh); (2) will be carried out, approved or funded by a state or local public agency; (3) is covered by one or more provisions of the Delta Plan; and (4) will have a significant impact on achievement of one or both of the coequal goals or implementation of government sponsored flood control programs. Water Code § 85057.5(a)(1)-(4). For non-covered actions, the policies will function as non-binding recommendations. The Delta Plan's recommendations are non-regulatory for both covered and non-covered actions. Most of the recommendations are directed at other agencies, which may or may not choose to implement all or a part of the recommended actions. Performance measures specified in the Delta Plan are designed to assist in implementation of the policies and recommendations. Issues for future evaluation and coordination are issues that the Delta Plan recommends for consideration by the Council or other agencies when additional information becomes available.

The Delta Plan's policies and recommendations further achievement of the coequal goals and inherent objectives through the following five types or categories of projects that the Delta Plan encourages other agencies to undertake, all of which are addressed in the EIR:

- Reliable Water Supply,
- Delta Ecosystem Restoration,
- Protection and Enhancement of Delta as an Evolving Place,
- Water Quality Improvement, and
- Flood Risk Reduction.

The environmental analysis in the EIR is based on the significant environmental effects ("impact" or "significant impacts") of these five categories of projects, which may be encouraged by the Delta Plan. Accordingly, the analysis for each resource area analyzed in the EIR is organized according to these five categories of projects.

III. ENVIRONMENTAL REVIEW PROCESS

On December 10, 2010, the Council filed a Notice of Preparation ("NOP") of the EIR with the State Clearinghouse in the Governor's Office of Planning and Research, and distributed copies of the NOP to approximately 400 recipients. The Council published the NOP for a 30-day comment period from December 12, 2010 through January 11, 2011. The Council held four scoping meetings throughout the planning area to obtain the views of agencies and the public on the scope and content of the EIR prior to publishing the Draft PEIR. The Council also prepared and released to the public four staff drafts of the Delta Plan before issuing the August 2011 Fifth Staff Draft Delta Plan, which is analyzed in the Draft PEIR and is the Proposed Project Alternative. The Council submitted the Draft PEIR to the State Clearinghouse and issued it for public review and comment for 90 days beginning on November 4, 2011 and ending on February 2, 2012. During that time, the Draft PEIR was available for review by state and local agencies and the public, including interested individuals and organizations. During the comment period on the Draft PEIR, the Council held seven transcribed public hearings for the purpose of taking public comment on the Draft PEIR, including five public hearings in locations throughout the state.

In September 2012, the Council directed staff to revise the Fifth Staff Draft Delta Plan. In November 2012, the Council issued the Final Staff Draft Delta Plan, which is the Revised Project, and the subject of the Recirculated Draft PEIR. The Recirculated Draft PEIR analyzes the Revised Project. The Recirculated Draft PEIR was issued for public review and comment for 45 days beginning on November 30, 2012 and ending on January 14, 2013. During the comment period on the Recirculated Draft PEIR, the Council held a transcribed public hearing on January 11, 2013 for the purpose of taking public comment on the Recirculated Draft PEIR.

In addition, the Council's engagement with federally and non-federally recognized Native American tribes consisted of notifications of scoping meetings sent in January 2011, notifications of the Draft PEIR release schedule sent in March 2011, meetings with the tribal Advisory Committee in May and August 2011 and in November 2012, notifications of the availability of the Draft PEIR and hearings to take comments on the Draft PEIR sent in January 2012, announcements of the Final Staff Draft Delta Plan sent in May 2012, and notifications of the availability of the Recirculated Draft PEIR sent in November 2012.

Agencies, organizations, and members of the public submitted approximately 3,500 written comments on the Draft PEIR and approximately 840 written comments on the Recirculated Draft PEIR, in addition to participating in eight public hearings on both documents. Section 3 of the Final PEIR provides responses to written and oral comments received during the comment period on the Draft EIR, and Section 4 of the Final PEIR provides responses to written and oral comments received during the comment period on the Recirculated Draft EIR.

IV. FINDINGS

These findings summarize the environmental determinations of the EIR about project impacts before and after mitigation, and do not attempt to repeat the full analysis of each environmental impact contained in the EIR. Instead, these findings provide a summary description of and basis for each impact from the EIR, describe the applicable mitigation measures identified in the EIR, and state the Council's findings and rationale therefor on the significance of each impact with the adopted mitigation measures. A full explanation of these environmental findings and conclusions can be found in the EIR, and these findings hereby incorporate by reference the discussion and analysis in the EIR supporting the EIR's determinations regarding mitigation measures and the Project's impacts.

In adopting mitigation measures as set forth below, the Council intends to adopt each of the mitigation measures identified in the certified EIR. Accordingly, in the event a mitigation measured identified in the certified EIR has inadvertently been omitted from these findings, such mitigation measure is hereby adopted and incorporated in the findings below by reference. In addition, in the event the language of a mitigation measure set forth below fails to accurately reflect the mitigation measure in the certified EIR due to a clerical error, the language of the mitigation measure as set forth in the certified EIR shall control unless the language of the mitigation measure has been specifically and expressly modified by these findings.2

Sections V through IX, below, provide brief descriptions of the impacts that the EIR identifies as either significant and unavoidable; less than significant with adopted mitigation for covered actions but significant and unavoidable for non-covered actions; or less than significant, including cumulative and growth inducing impacts. These descriptions also summarize any mitigation measures identified in the EIR for each significant impact.

V. SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS AND DISPOSITION OF RELATED MITIGATION MEASURES

The EIR identifies the following significant and unavoidable adverse impacts associated with the approval of the Delta Plan, some of which can be reduced, although not to a less-than-significant level, through implementation of mitigation measures identified in the EIR. Pub. Resources Code §21081(a)(1). It is hereby determined that these significant and unavoidable adverse impacts are acceptable for the reasons specified in Section XIV, below. Pub. Resources Code §21081(a)(3). As explained in Section XI, below, the findings in this Section are based on the EIR, the discussion and analysis in which is hereby incorporated in full by this reference.

2 For example, throughout the mitigation measures acronyms have been spelled out, short form references and citations were replaced with full references and citations, typographical errors were corrected, and other changes were made to ensure the clarity of the measures. These changes are indicated with <u>underline</u> for added text and ~~strikeout~~ for deleted text.

A. Impact 4-1. Substantial Adverse Effects on Sensitive Natural Communities, including Wetlands and Riparian Habitat

The EIR finds that the Delta Plan could encourage projects that cause substantial adverse effects on sensitive natural communities, including wetlands and riparian habitat. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, water quality improvement and flood risk reduction projects, and operation of Delta enhancement and water quality improvement projects.

Implementation of Mitigation Measure 4-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts on sensitive natural communities such as wetlands and riparian habitat, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4-1: *Substantial Adverse Effects on Sensitive Natural Communities, Including Wetlands and Riparian Habitat.*

- *Avoid, minimize, and compensate for reduction in area and/or habitat quality of sensitive natural communities, including wetlands, by doing the following:*
  - *Selecting project site(s) that would avoid sensitive natural communities, including jurisdictional wetlands and other waters, vernal pools, alkali seasonal wetlands, riparian habitats, and inland dune scrub.*
  - *Designing, to the maximum extent practicable, project elements to avoid effects on sensitive natural communities.*
  - *Replacing, restoring, or enhancing on a "no net loss" basis (in accordance with U.S. Army Corps of Engineers (USACE) and State Water Resources Control Board (SWRCB) requirements), wetlands and other waters of the United States and waters of the State that would be removed, lost, and/or degraded.*
  - *Where impacts to sensitive natural communities other than waters of the United States or State are unavoidable, compensating for impacts by restoring and/or preserving in-kind sensitive natural communities on-site, or off-site at a nearby site, or by purchasing in-kind restoration or preservation credits from a mitigation bank that services the project site and that is approved by the appropriate agencies , in consultation with applicable regulatory agencies (at ratios that offset temporal loss of habitat value).*

- *Implement advanced mitigation planning for ecosystem restoration prior to construction.*

- *Implement construction best management practices, including:*
  - *Developing and implementing a Stormwater Pollution Prevention Plan (SWPPP).*
  - *Minimizing soil disturbance, erosion, and sediment runoff from project site.*
  - *Avoiding and minimizing contaminant spills.*
  - *Minimizing visual and noise disturbance from construction activities.*

- *Conducting biological construction monitoring to ensure that implemented Best Management Practices (BMPs) are effective.*

♦ *Restore areas temporarily affected by construction activities, including:*
  - *Preparing restoration plan for temporary impacts sites for review by resource agencies.*
  - *Minimizing soil disturbance and stockpiling topsoil for later use in any areas to be graded.*
  - *Decompacting or amending soil if necessary before planting and use native species for revegetation.*
  - *Restoring natural communities with similar or improved function from communities that were affected.*

♦ *If a project may result in conversion of oak woodlands, as identified in section 21083.4 of the Public Resources Code, one or more of the following mitigation measures shall be implemented:*
  - *Conserve oak woodlands, through the use of conservation easements.*
  - *Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.*
  - *Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of section 1363 of the Fish and Game Code.*

♦ *An invasive species management plan shall be developed and implemented for any project whose construction or operation could lead to introduction or facilitation of invasive species establishment. The plan shall ensure that invasive plant species and populations are kept below preconstruction abundance and distribution levels. The plan shall be based on the best available science and developed in consultation with Department of Fish and Wildlife (~~DFG~~DFW) and local experts, such as the University of California Extension, county agricultural commissioners, representatives of County Weed Management Areas (WMA), California Invasive Plant Council, and California Department of Food and Agriculture. The invasive species management plan will include the following elements:*
  - *Nonnative species eradication methods (if eradication is feasible)*
  - *Nonnative species management methods*
  - *Early detection methods*
  - *Notification requirements*
  - *Best management practices for preconstruction, construction, and post construction periods*
  - *Monitoring, remedial actions and reporting requirements*
  - *Provisions for updating the target species list over the lifetime of the project as new invasive species become potential threats to the integrity of the local ecosystems*

B. Impact 4-2 Substantial Adverse Effects On Special Status Species

The EIR finds that the Delta Plan could encourage projects that cause substantial adverse effects on special status species. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement and flood risk reduction projects, and operation of reliable water supply, Delta enhancement, and water quality improvement projects.

Implementation of Mitigation Measure 4-2, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts on special status species, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4-2: *Substantial Adverse Effects On Special Status Species*

- *Select project site(s) that would avoid habitats of special-status species (which may include foraging, sheltering, migration and rearing habitat in addition to breeding or spawning habitat), and to the maximum extent practicable, (re)design project elements to avoid effects on such species.*

- *Schedule construction to avoid special-status species' breeding, spawning, or migration locations during the seasons or active periods that these activities occur.*

- *Conduct preconstruction surveys (by a qualified biologist) for special-status species in accordance with U.S. Fish and Wildlife Service (USFWS),National Marine Fisheries Service (NMFS) and ~~DFG~~DFW survey methodologies and appropriate timing to determine presence and locations of any special-status species and their habitat, and avoid, minimize, or compensate for impacts to special-status species in coordination with ~~DFG~~DFW and USFWS or NMFS.*

- *Establish buffers around special-status species habitats to exclude effects of construction activities. The size of the buffer shall be in accordance with USFWS and ~~DFG~~DFW protocols for the applicable special-status species. If nest tree removal is necessary, remove the tree only after the nest is no longer active, as determined by a qualified biologist.*

- *Conduct construction monitoring (by qualified biologist) to ensure effectiveness of avoidance and minimization measures and implement remedial measures if necessary.*

- *When appropriate, relocate special-status plant and animal species or their habitats from project sites following USFWS, NMFS, and ~~DFG~~DFW protocols (e.g., for special-status plant species or elderberry shrubs).*

- *Where impacts to special-status species are unavoidable, compensate for impacts by restoring or preserving in-kind suitable habitat on-site, or off-site, or by purchasing restoration or preservation credits (in compliance with the California Endangered Species Act (CESA) and federal Endangered Species Act (ESA)) for affected State- or federally-listed species from a mitigation bank that serves the project site and that is approved by the appropriate agencies, in consultation with the appropriate regulatory agencies (at ratios that offset the temporary loss of habitat value).*

C. Impact 4-3. Substantial Adverse Effects on Fish or Wildlife Species Habitat

The EIR finds that the Delta Plan could encourage projects that cause substantial adverse effects on fish or wildlife species habitat. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement and flood risk reduction projects, and operation of reliable water supply, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 4-3, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts on fish or wildlife species habitat, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4-3: *Substantial Adverse Effects on Fish or Wildlife Species Habitat.*

- *Select project site(s) that would avoid a substantial reduction in fish and wildlife species habitat.*

- *To the maximum extent practicable, design project elements to avoid effects that would lead to a substantial loss of fish and wildlife habitat.*

- *Replace, restore, or enhance habitats for fish and wildlife species that would be lost.*

- *Where substantial loss of habitat for fish and wildlife species is unavoidable, compensate for impacts by preserving in-kind habitat.*

D. Impact 4-4. Interfere Substantially with the Movement of any Native Resident or Migratory Fish or Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors

The EIR finds that the Delta Plan could encourage projects that interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. These impacts are likely to be caused primarily by construction of new reliable water supply, Delta enhancement, water quality improvement and flood risk reduction projects, and operation of reliable water supply, Delta enhancement, and flood risk reduction projects.

Implementation of Mitigation Measure 4-4, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts on the movement of any native resident or migratory fish or wildlife species or on established native resident or migratory wildlife corridors, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4-4: *Interfere Substantially with the Movement of any Native Resident or Migratory Fish or Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors*

- *Protect habitat for migratory waterfowl and shorebirds by expanding existing wildlife refuges and management areas, and establishing new ones in or near wetland areas used by migratory waterfowl and shorebirds. Manage these areas by establishing suitable vegetation, hydrology and other habitat components to optimize the use by migratory waterfowl and shorebirds.*

- *Protect, restore and enhance connectivity of habitats, including but not limited to wetland and riparian habitats that function as migration corridors for wildlife species (similar to how has been implemented through programs such as the California Essential Habitat Connectivity Project). Acquire areas with potential to increase connectivity between existing habitats, protect these areas in perpetuity through the acquisition of conservation easements, deed restrictions, or similar tools, and restore the habitat for wildlife species in these areas. Habitat restoration might be accomplished by establishing suitable hydrology or other physical conditions for desirable vegetation, planting desirable vegetation, fencing and managing grazing, and other means.*

- *Protect migratory pathways for migratory aquatic species such as salmon, steelhead, and sturgeon including those that use Delta tributaries and floodplain habitats by screening new diversions, and screening existing diversions and removing existing migration barriers if the specific proposed project/activity (e.g., increased intake volume through an existing unscreened diversion, new diversion, new barrier, new barrier near an existing unscreened diversion, etc.) exacerbates the negative effect on migratory aquatic species caused by the existing barrier or unscreened diversion.*

- *Avoid or minimize alteration of flow patterns and water quality effects that could disrupt migratory cues for migratory aquatic species by implementing water management measures and establishing programs to reduce water pollution.*

E. Impact 4-5. Conflict with Any Local Policies or Ordinances Protecting Biological Resources or the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Protection Plan

The EIR finds that the Delta Plan could encourage projects that conflict with local policies or ordinances protecting biological resources or provisions of adopted habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat protection plans. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement and flood risk reduction projects, and operation of reliable water supply, ecosystem restoration, Delta enhancement, and water quality improvement projects.

Implementation of Mitigation Measure 4-5, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for conflicts with local policies or ordinances protecting biological resources or provisions of adopted habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat protection plans, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 4-5: *Conflict with Any Local Policies or Ordinances Protecting Biological Resources or the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Protection Plan.*

- *Prior to construction, evaluate impacts to trees or other biological resources protected by local policies and ordinances, and abide by any permit requirements associated with these policies and ordinances.*

F. Impact 5-1. Substantially Alter the Existing Drainage Pattern of the Site or Area, Including Through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner which would Result in Flooding On- or Off-site

The EIR finds that the Delta Plan could encourage projects that substantially alter existing drainage patterns, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. These impacts are likely to stem from construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 5-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts

on existing drainage patterns or amount of surface runoff, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 5-1: *Substantially Alter the Existing Drainage Pattern of the Site or Area, Including Through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner which would Result in Flooding On- or Off-site.*

- *Prepare a drainage or hydrology and hydraulic study that would assess the need and provide a basis for the design of drainage-related mitigations, such as new onsite drainage systems or new cross drainage facilities. Prepare the study in accordance with applicable standards of Federal Emergency Management Agency (FEMA), USACE, state Department of Water Resources (DWR), Central Valley Flood Protection Board (CVFPB), as well as the local reclamation districts and flood control agencies and the counties and cities. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, and CVFPB. The study would identify potential increases in flood risks, including those that may result from new facilities.*

- *Provide temporary drainage bypass facilities that would reroute drainage around, along, or over the Proposed Project facilities and construction sites. The temporary bypass facilities would be designed in accordance with the results and recommendations of a drainage or hydrologic and hydraulic study and would be in place and fully functional until long-term replacement facilities are completed.*

- *Provide onsite stormwater detention storage at construction and project facility sites that would reduce project-caused short- or long-term increases in drainage runoff. The storage space placement and capacity would be designed based on the drainage or hydrologic and hydraulic study.*

- *Based on the results of the drainage or hydrologic and hydraulic study, arrange the length of any stockpiles or other construction features in the direction of the floodplain flow to maximize surface flows under flood flow conditions.*

- *At in-stream construction sites that might reduce channel capacity, install setback levees or bypass channels to maintain channel capacity and to mitigate hydraulic impacts.*

- *Where low channel velocities might result from construction, implement a sediment management program in order to maintain channel capacity.*

- *Provide cross drainage, replacement drainage paths and facilities, and enlarged flow paths to reroute drainage around, under, or over the Proposed Project facilities and to restore the function of any affected existing drainage or flow paths and facilities.*

- *Channel modifications for restoration actions would be required to be implemented to maintain or improve flood management functions and would be coordinated with the USACE, DWR, CVFPB, and other flood control agencies to assess the desirability and feasibility for channel modifications. To the extent consistent with floodplain land uses and flood control requirements, if applicable, woody riparian vegetation would be allowed to naturally establish.*

- *For areas that would be flooded as a result of the project, or where existing flooding would be increased in magnitude, frequency, or duration, purchase a flowage easement and/or property at the fair-market value.*

- *Provide a long-term sediment removal program at in-river structures.*

- *To mitigate potential impacts of changes in the timing of reservoir releases or the possible combination of river peak flows, use forecasts to implement coordination of operations with existing reservoirs.*

G. Impact 5-4. Expose People or Structures to a Significant Risk of Loss, Injury or Death Involving Flooding, Including Flooding as a Result of the Failure of a Levee or Dam

The EIR finds that the Delta Plan could encourage projects that expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, and water quality improvement projects.

Implementation of Mitigation Measure 5-4, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for exposure of people or structures to a significant risk of loss, injury or death involving flooding, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 5-4: *Expose People or Structures to a Significant Risk of Loss, Injury or Death Involving Flooding, Including Flooding as a Result of the Failure of a Levee or Dam*

- *Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design of drainage-related mitigations, such as new onsite drainage systems or new cross drainage facilities. Prepare the study in accordance with applicable standards of FEMA, USACE, DWR, CVFPB, as well as the local reclamation districts and flood control agencies and the counties and cities. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, and CVFPB.*

- *Where high channel velocities might result from construction, provide bank protection, such as rip rap, to protect levees from erosion.*

- *Where construction results in longer channel wind fetch lengths, install vegetative buffer zones or wave erosion protection on the water side slope of levees, such as rock or grouted rip rap, and increase levee freeboard to address higher wind and wave runup.*

- *Based on the drainage or hydrology and hydraulics study, determine any resulting changes to available evacuation plans or emergency response times.*

- *To reduce emergency response times and public safety risks, raise structures and major roads out of the floodplain.*

- *Provide automated flood warning systems.*

- *Develop and implement area-specific evacuation and emergency response plans.*

- *Considering the results of the hydraulics study noted above, perform a seepage and stability analyses that would assess the need and act as a basis for design of other seepage- and stability-related mitigations, such as cutoff walls, adjacent levees, setback levees, berms, and subdrainage features. Perform the analyses in accordance with applicable standards of FEMA, USACE, and DWR.*

- *Perform research and collect subsurface information in accordance with applicable standards of FEMA, USACE, and DWR and perform settlement analyses that would assess the need for monitoring and potential settlement-related mitigations, such as ground improvement or pre-construction surcharging. Perform the analyses in accordance with applicable standards of USACE.*

- *Perform research and collect subsurface information in accordance with applicable standards of FEMA, USACE, and DWR and perform seismic and liquefaction analyses that would assess the need and provide the basis for design of other seismic-related mitigations, such as ground improvement. Perform the analyses in accordance with applicable standards of USACE and American Society of Civil Engineers and Southern California Earthquake Center.*

- *Prepare and implement a plan for periodic maintenance, inspections, repair, and rehabilitation of new water storage and conveyance facilities that could cause flooding upon failure.*

- *Provide redundancy and safety controls and devices on water storage and conveyance facilities (pump stations, canals, and tunnels) to protect against facility failure and subsequent flooding.*

- *To limit flooding from the unlikely event of a conveyance facility failure, limit extensive flow escape with installation of safety devices such as gated checks.*

- *Construct new evacuation roads and access roads, as necessary.*

- *Conduct Golden Guardian emergency drills.*[3]

H. Impact 5-5. Place Within a 100-year Flood Hazard Area Structures Which Would Impede or Redirect Flood Flows, or Inundation by Seiche, Tsunami, or Mudflow

The EIR finds that the Delta Plan could encourage projects that place structures which would impede or redirect flood flows within a 100-year flood hazard area, or within an area subject to inundation by seiche, tsunami, or mudflow. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, and water quality improvement projects.

Implementation of Mitigation Measure 5-5, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for placement of structures which would impede or redirect flood flows within a 100-year flood hazard area, or within an area subject to inundation by seiche, tsunami, or mudflow, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 5-5: *Place Within a 100-year Flood Hazard Area Structures Which Would Impede or Redirect Flood Flows, or Inundation by Seiche, Tsunami, or Mudflow*

- *Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design of drainage-related mitigations, such as new onsite drainage systems or new cross drainage facilities. Prepare the study in accordance with applicable standards of FEMA, USACE, DWR, CVFPB, as well as the local reclamation districts and flood control agencies and the counties and cities. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, and CVFPB. Provide temporary drainage bypass facilities that would reroute drainage around, along, or over the Proposed Project facilities and construction sites. The temporary bypass facilities would be designed in accordance with drainage or hydrology and hydraulic study and would be in place and fully functional until long-term replacement facilities are completed.*

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[3] *First implemented in 2004, Golden Guardian, California's Annual Statewide Exercise Series, has become the most comprehensive state-level exercise series program in the country. The goal of Golden Guardian is to exercise and assess emergency operations plans, policies, and procedures for all-hazards/catastrophic incidents at the local, regional, and state levels, as described in subsection 5.3.7.2.2 of the Recirculated Draft EIR.*

- *Based on the results of the drainage or hydrologic and hydraulic study, arrange the length of any stockpiles or other construction features in the direction of the floodplain flow to maximize surface flows under flood conditions.*

- *At in-stream construction sites that might reduce channel capacity, install setback levees or bypass channels to maintain channel capacity and to mitigate hydraulic impacts.*

- *Provide cross drainage, replacement drainage paths and facilities, and enlarged flow paths to reroute drainage around, under, or over the Proposed Project facilities and to restore the function of any affected existing drainage or flow paths and facilities.*

- *Channel modifications for restoration actions would be required to be implemented to maintain or improve flood management functions and would be coordinated with the USACE, DWR, CVFPB, and other flood control agencies to assess the desirability and feasibility for channel modifications. To the extent consistent with floodplain land uses and flood control requirements, if applicable, woody riparian vegetation would be allowed to naturally establish.*

I. Impact 6-1. Physical Division of an Established Community

The EIR finds that the Delta Plan could encourage projects that cause physical division of an established community. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 6-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from physical division of an established community, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 6-1: *Physical Division of an Established Community*

- *Minimize physical division of existing established communities or residential areas by designing new facilities and infrastructure to be located underground or with sufficient points of visual and physical access. Examples of methods of minimizing physical division include (but are not limited to):*
  - *Burying or visually masking new infrastructure or facilities;*
  - *Restoring disturbed landscapes back to preconstruction conditions;*
  - *Reestablishing access (e.g., reconnecting roads, rebuilding bridges);*
  - *Relocating landmark buildings; or*
  - *Implementing other feasible mitigation to reduce the disturbance to a community's physical composition, visual character, or other features integral to the community's identity.*

J. Impact 6-2. Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact

The EIR finds that the Delta Plan could encourage projects that cause conflict between constructed facilities and an applicable land use plan, policy, regulation, or restriction on land that was adopted for the purpose of avoiding or mitigating an environmental impact. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 6-2, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize conflict between constructed facilities and applicable land use plans, policies, regulations, or restrictions on land that were adopted for the purpose of avoiding or mitigating an environmental impact, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 6-2: *Conflict of Constructed Facilities with an Applicable Land Use Plan, Policy, Regulation, or Restriction on Land That Was Adopted for the Purpose of Avoiding or Mitigating an Environmental Impact*

- *Compensate for the loss or reduction in environmental values protected by the subject plan or policy. For example, if the project would result in conversion of agricultural land to a non-agricultural use, potential mitigation actions could include:*
  - *Recording a deed restriction that ensures permanent conservation and mitigation on other property of equal or greater environmental mitigation value;*
  - *Creating a buffer or barrier between uses;*
  - *Redesigning the project or selecting an alternate location that avoids or mitigates the impact; and/or*
  - *Restoring disturbed land to conditions to provide equal or greater environmental value to the land affected by the covered action.*

K. Impact 7-1. Conversion of Farmland to Nonagricultural Use

The EIR finds that the Delta Plan could encourage projects that convert farmland to nonagricultural use. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 7-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for

conversion farmland to nonagricultural use, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 7-1: *Conversion of Farmland to Nonagricultural Use*

- *Design proposed projects to minimize, to the greatest extent feasible, the loss of the highest valued agricultural land.*

- *For projects that will result in permanent conversion of Farmland, preserve in perpetuity other Farmland through acquisition of an agricultural conservation easement, or contributing funds to a land trust or other entity qualified to preserve Farmland in perpetuity (at a target ratio of 1:1, depending on the nature of the conversion and the characteristics of the Farmland to be converted, to compensate for permanent loss).*

- *Redesign project features to minimize fragmenting or isolating Farmland. Where a project involves acquiring land or easements, ensure that the remaining nonproject area is of a size sufficient to allow viable farming operations. The project proponents shall be responsible for acquiring easements, making lot line adjustments, and merging affected land parcels into units suitable for continued commercial agricultural management.*

- *Reconnect utilities or infrastructure that serve agricultural uses if these are disturbed by project construction. If a project temporarily or permanently cuts off roadway access or removes utility lines, irrigation features, or other infrastructure, the project proponents shall be responsible for restoring access as necessary to ensure that economically viable farming operations are not interrupted.*

- *Manage project operations to minimize the introduction of invasive species or weeds that may affect agricultural production on adjacent agricultural land. .*

- *Establish buffer areas between projects and adjacent agricultural land that are sufficient to protect and maintain land capability and agricultural operation flexibility. Design buffers to protect the feasibility of ongoing agricultural operations and reduce the effects of construction- or operation-related activities (including the potential to introduce special-status species in the agricultural areas) on adjacent or nearby properties. The buffer shall also serve to protect ecological restoration areas from noise, dust, and the application of agricultural chemicals. The width of the buffer shall be determined on a project-by-project basis to account for variations in prevailing winds, crop types, agricultural practices, ecological restoration, or infrastructure. Buffers can function as drainage swales, trails, roads, linear parkways, or other uses compatible with ongoing agricultural operations.*

L. Impact 7-2. Conflict with Existing Zoning for Agricultural Use or a Williamson Act Contract

The EIR finds that the Delta Plan could encourage projects that cause conflicts with existing zoning for agricultural use or a Williamson Act contract. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects

Implementation of Mitigation Measure 7-2, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts on existing zoning for agricultural use or Williamson Act contracts, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 7-2: *Conflict with Existing Zoning for Agricultural Use or a Williamson Act Contract*

- *Design proposed projects to minimize, to the greatest extent feasible, conflicts and inconsistencies with land protected by agricultural zoning or a Williamson Act contract and the terms of the applicable zoning/contract.*

M. Impact 7-3. Conflict with Existing Zoning for, or Cause Rezoning of, Forestland, Timberland, or Timberland Zoned for Timberland Production

The EIR finds that the Delta Plan could encourage projects that cause conflicts with existing zoning for, or cause rezoning of, forestland, timberland, or timberland zoned for timberland production. These impacts are likely to be caused primarily by construction and operation of new reliable water supply projects.

Implementation of Mitigation Measure 7-3, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts on zoning for forestland, timberland, or timberland zoned for timberland production, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 7-3: *Conflict with Existing Zoning for, or Cause Rezoning of, Forestland, Timberland, or Timberland Zoned for Timberland Production*

- *Avoid land protected as forestland and timberland through site selection and/or project design. Where feasible, project proponents should take into account the value of the forest, not only in terms of direct products such as wood but also as part of the watershed ecosystem, when selecting a project site. Wherever possible, nonprotected sites should be preferred and selected instead of protected sites.*

N. Impact 7-4. Loss of Forestland or Conversion of Forestland to Nonforest Use

The EIR finds that the Delta Plan could encourage projects that cause loss of forestland or conversion of forestland to nonforest use. These impacts are likely to be caused primarily by construction and operation of new reliable water supply projects.

Implementation of Mitigation Measure 7-4, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts on forestland or conversion of forestland to nonforest use, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 7-4: *Loss of Forestland or Conversion of Forestland to Nonforest Use*

- *For projects that will result in permanent conversion of Forestland, preserve in perpetuity other forestland through a conservation easement or by acquiring lands or contributing funds to a land trust or other agency (at a target ratio of 1:1, depending on the nature of the conversion and the characteristics of the Forestland to be converted, to compensate for permanent loss).*

- *Avoid land protected as forestland and timberland through site selection and/or project design. Where feasible, project proponents should take into account the value of the forest, not only in terms of direct products such as wood, but also as part of the watershed ecosystem, when selecting a project site. When possible, unprotected sites should be preferred and selected instead of protected sites.*

- *When removal of existing forestland or timberlands is required as part of an action, proponents must acquire the property at fair market value.*

O. Impact 7-5. Involve Other Changes in the Existing Environment That, Because of Their Location or Nature, Could Result in Conversion of Farmland to Nonagricultural Use or Conversion of Forestland to Nonforest Use

The EIR finds that the Delta Plan could encourage projects that cause other changes in the existing environment that, because of their location or nature, could result in conversion of farmland to nonagricultural use or conversion of forestland to nonforest use. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measures 7-1 and 7-4, set forth and adopted above, would reduce these impacts, but not to a less-than-significant level. These mitigation measures would provide for specific ways to minimize potential for impacts on the existing environment that, because of

their location or nature, could result in conversion of farmland to nonagricultural use or conversion of forestland to nonforest use, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

P. Impact 8-1. Substantial Degradation of Visual Qualities

The EIR finds that the Delta Plan could encourage projects that cause substantial degradation of visual qualities. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement and flood risk reduction projects, and operation of reliable water supply, Delta enhancement, and water quality improvement projects.

Implementation of Mitigation Measure 8-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts on visual qualities, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 8-1: *Substantial Degradation of Visual Qualities*

- *Use compatible colors for proposed structural features, such as intakes, pumping plants, and surge towers. Use earth tone paints and stains with low levels of reflectivity.*

- *Minimize the vertical profile of proposed structures as much as possible. Where possible, use subgrades for floors of structures. Use landscaped berms instead of walls to mask*
- *views of structures from high-visibility sites. Use green roof design where roof structures would be highly visible.*

- *Use vegetation plantings on proposed facility walls, such as climbing plants, espaliers, and other forms that soften the appearance of structures.*

- *Develop a landscaping plan for all proposed structures. Provide vegetative screening to soften views of structures. Landscaping should complement the surrounding landscape.*

- *Round the tops and bottoms of spoil disposal areas, and contour the faces of slopes to create more natural-looking landforms. Create visual diversity by planting vegetation with diverse growth forms on the spoil disposal areas; plant with more than just grasses.*

- *Landscape parking areas at proposed facilities, and include low-impact design features, such as permeable pavers, tree basins, and bioswales, that reduce stormwater runoff and enhance visual quality.*

- *Conduct only partial vegetative clearing of the limits of construction rather than clear the entire area; partial clearing would leave islands of vegetation and result in a more*

natural look. Use irregular clearing shapes with feathered edges instead of hard edges to promote a more natural effect.

- *Develop design form and materials with a goal to achieve aesthetic visual character instead of a strictly utilitarian objective. Use cast natural form elements or natural materials for facing to achieve texture and color compatible with the adjacent landscape; natural materials would be preferable for areas of high visibility and public use. Landscape areas adjacent to facilities. Use natural materials, such as wood and stone, for signage at proposed facilities.*

- *Develop aesthetically pleasing landscaping for relocated roads at the shoulders, intersections, and on- and off-ramps from highways. Design turnouts and scenic vista points where appropriate for relocated roads with high visibility and high public use.*

- *To the extent consistent with the safety and reliability of the electric grid, as well as site-specific considerations, use single-pole electrical transmission towers instead of lattice-form towers for proposed large electrical transmission lines, and put transmission lines underground along areas with high visibility and high public use.*

- *Consider developing aesthetically well-designed visitor centers, vantage areas, or observation decks at appropriate facilities with interpretation features, walking paths, and other features. Although developing visitor centers would not reduce a visual impact, it would have the effect of making the facilities features of interest to the touring public.*

Q. Impact 8-2. Adverse Effects on Scenic Vistas and Scenic Resources

The EIR finds that the Delta Plan could encourage projects that have adverse effects on scenic vistas and scenic resources. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement and flood risk reduction projects, and operation of new reliable water supply, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 8-2, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts on scenic vistas and scenic resources, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 8-2: *Adverse Effects on Scenic Vistas and Scenic Resources*

- *Implement elements of Mitigation Measure 8-1 for temporary construction activities and new facilities that are visible from scenic vistas and designated roads and highways as appropriate.*

- *Replace all scenic resources (e.g., large trees) that would be removed for the Proposed Project, when feasible. Identify compensatory mitigation for visual or aesthetic resources by providing improvements to areas with existing diminished scenic quality.*

R. Impact 8-3. New Sources of Substantial Light or Glare

The EIR finds that the Delta Plan could encourage projects that cause new sources of substantial light or glare. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement and flood risk reduction projects, and operation of new reliable water supply, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 8-3, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for new sources of substantial light or glare, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 8-3: *New Sources of Substantial Light or Glare*

- *Use shields for proposed lighting facilities, and direct lighting downward and inward toward the facilities.*

S. Impact 9-1. Construction and Operations of Projects Could Conflict with an Applicable Air Quality Plan, Contribute Substantially to an Air Quality Violation, and/or Result in a Cumulatively Considerable Net Increase of Nonattainment Pollutants

The EIR finds that the Delta Plan could encourage projects that cause conflicts with an applicable air quality plan, contribute substantially to an air quality violation, and/or result in a cumulatively considerable net increase of nonattainment pollutants. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 9-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for conflicts with an applicable air quality plan, contributions to an air quality violation, and/or cumulatively considerable net increases of nonattainment pollutants, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 9-1: *Construction and Operations of Projects Could Conflict with an Applicable Air Quality Plan, Contribute Substantially to an Air Quality Violation, and/or Result in a Cumulatively Considerable Net Increase of Nonattainment Pollutants*

- *Use equipment and vehicles that are compliant with Air Resource Board (ARB) requirements and emission standards for on-road and off-road fleets and engines. New engines and retrofit control systems should reduce NO_x and PM from diesel-fueled on-road and off-road vehicles and equipment.*

- *Minimize idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]).Clear signage should be posted for construction workers at all entrances to the site.*

- *Maintain all equipment in proper working condition according to manufacturer's specifications.*

- *Use electric equipment when possible. Use lower-emitting alternative fuels to power vehicles and equipment where feasible.*

- *Use low Volatile Organic Compounds (VOC) coatings and chemicals; minimize chemical use.*

- *Prepare a dust control plan and apply dust control measures at the construction sites.*

- *To minimize track-out of dirt and mud from dirt and gravel roads, all trucks and equipment, including their tires, shall be washed prior to leaving the site. Only exteriors of trucks and equipment are to be washed (no engine degreasing), no detergents or chemicals shall be used in the wash water, and off-site runoff of rinse water shall be prevented.*

- *For projects involving land fallowing, land conversion, or other agricultural operations, implement applicable BMPs from agencies such as the U.S. Department of Agriculture Natural Resources Conservation Service to reduce potential dust emissions.*

BMPs for fallowed lands could include, but are not limited to, the following:

- *Implement conservation cropping sequences and wind erosion protection measures, such as:*
  - *Plan ahead to start with plenty of vegetation residue, and maintain as much residue on fallowed fields as possible. Residue is more effective for wind erosion protection if left standing.*
  - *If residues are not adequate, small grain can be seeded about the first of the year to take advantage of the winter rains and irrigated with a light irrigation if needed to get adequate growth.*
  - *Avoid any tillage if possible.*
  - *Avoid any traffic or tillage when fields are extremely dry to avoid pulverization.*

- *Apply soil stabilization chemicals to fallowed lands.*

- *Re-apply drain water to allow protective vegetation to be established.*

- *Reuse irrigation return flows to irrigate windbreaks across blocks of land including many fields to reduce wind fetch and reduce emissions from fallowed, farmed, and other lands within the block. Windbreak species, management, and layout would be optimized to achieve the largest feasible dust emissions reduction per unit water available for their irrigation. Windbreak corridors would provide ancillary aesthetic and habitat benefits.*

Project-specific lists of mitigation measures should also include the recommendations or requirements of the local air district(s). For example, the Bay Area Air Quality Management District (BAAQMD) lists the following basic and additional mitigation measures to reduce emissions from project construction (BAAQMD, 2010. California Environmental Quality Act Air Quality Guidelines. December 2010. San Francisco, California. Site accessed February 8, 2011. http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx~~BAAQMD 2010~~).

Basic Construction Mitigation Measures Recommended for ALL Proposed Projects

1. *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.*
2. *All haul trucks transporting soil, sand, or other loose material off-site shall be covered.*
3. *All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*
4. *All vehicle speeds on unpaved roads shall be limited to 15 mph.*
5. *All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.*
6. *Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.*
7. *All construction equipment shall be maintained and properly tuned in accordance with manufacturer‘s specifications. All equipment shall be checked by a certified visible emissions evaluator.*
8. *Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.*

Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Threshold

1. *All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.*
2. *All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.*
3. *Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.*
4. *Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.*
5. *The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.*
6. *All trucks and equipment, including their tires, shall be washed off prior to leaving the site.*
7. *Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.*
8. *Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.*
9. *Minimizing the idling time of diesel powered construction equipment to two minutes.*
10. *The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_x reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.*
11. *Use low VOC (i.e., reactive organic gases or ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).*
12. *Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NO_x and PM.*
13. *Require all contractors to use equipment that meets ARB's most recent certification standard for off-road heavy duty diesel engines.*

T. Impact 9-3. Construction or Operation of Projects Could Expose Sensitive Receptors to Substantial Pollutant Concentrations

The EIR finds that the Delta Plan could encourage projects that cause construction or operation of projects that could expose sensitive receptors to substantial pollutant concentrations. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 9-3, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from construction or operation of projects that could expose sensitive receptors to substantial pollutant concentrations, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 9-3: *Construction or Operation of Projects Could Expose Sensitive Receptors to Substantial Pollutant Concentrations*

The Air Quality Technical Report prepared for the Proposed Project should evaluate human health risks from potential exposures of sensitive receptors to substantial pollutant concentrations on a project-specific basis. The need for a human health risk analysis should be evaluated using approved screening tools, and discussed with the local Air Quality Management District (AQMD) or Air Pollution Control District (APCD) at the time of preparation of the Air Quality Technical Report.

If the health risk is determined to be significant on a project-specific basis, control measures should be implemented to reduce health risks to levels below the applicable air district threshold.

Implementation of one or more of the following requirements, where feasible and appropriate would reduce the effects of Impact 9-3a, Construction or Operation of Projects Would Expose Sensitive Receptors to Substantial Pollutant Concentrations:

- *Implement Mitigation Measure 9-1 to reduce air emissions and air quality impacts from construction and operations of the Proposed Project.*

- *Use equipment with diesel engines designed or retrofitted to minimize DPM emissions, usually through the use of catalytic particulate filters in the exhaust.*

- *Use electric equipment to eliminate local combustion emissions.*

- *Use alternative fuels, such as compressed natural gas or liquefied natural gas.*

If the project would result in significant emissions of airborne, naturally occurring asbestos or metals from excavation, hauling, blasting, tunneling, placement, or other handling of rocks or soil, a dust mitigation and air monitoring plan would be required to specify site-specific measures to minimize emissions and that airborne concentrations of the toxic air contaminants (TACs) of concern do not exceed regulatory or risk-based trigger levels.

U. Impact 10-1. Disturbance or Destruction of Prehistoric and Historic-Era Archaeological Resources

The EIR finds that the Delta Plan could encourage projects that cause disturbance or destruction of prehistoric and historic-era archaeological resources. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 10-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from disturbance or destruction of prehistoric and historic-era archaeological resources, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 10-1: *Disturbance or Destruction of Prehistoric and Historic-Era Archaeological Resources*

- *Before any ground-disturbing activities begin, conduct intensive archaeological surveys, including subsurface investigations to identify the locations, extent, and integrity of presently undocumented archaeological resources that may be located in areas of potential disturbance. In addition, if ground-disturbing activities are planned for an area where a previously documented prehistoric archaeological site has been recorded but no longer may be visible on the ground surface, conduct test excavations to determine whether intact archaeological subsurface deposits are present. Also conduct surveys at the project site for the possible presence of cultural landscapes and traditional cultural properties.*

- *If potentially CRHR-eligible prehistoric or historic-era archeological resources are discovered during the survey phase, additional investigations may be necessary. These investigations could include, but not necessarily be limited to, measures providing resource avoidance, archival research, archaeological testing and California Register of Historical Resources (CRHR) eligibility evaluations, and contiguous excavation unit data recovery. In addition, upon discovery of potentially CRHR-eligible prehistoric resources, coordinate with the NAHC and the Native American community to provide for an*

opportunity for suitable individuals and tribal organizations, including federally recognized tribes, to comment on the proposed research.

- *If CRHR-eligible archaeological resources or cultural landscapes/properties are present and would be physically impacted, specific strategies to avoid or protect these resources should be implemented if feasible. These measures may include:*
  - *Planning construction to avoid the sensitive sites*
  - *Deeding the sensitive sites into permanent conservation easements*
  - *Capping or covering archaeological sites*
  - *Planning parks, green space, or other open space to incorporate the sensitive sites*
  - *Granting of cultural easements to Native American tribes for the purpose of protecting cultural resource properties*

- *If federal agencies are participants in the activity and Section 106 of the National Historic Preservation Act applies, conduct formal consultation with the State Historic Preservation Officer, Tribal Historic Preservation Officer (THPO) or Tribal Administrator for tribes that do not have a THPO, and the Native American community. Potential adverse effects on cultural resources recommended as eligible for listing in the National Register of Historic Places (NRHP) will be resolved through the development of a memorandum of agreement and/or a program-level agreement.*

- *As part of efforts to identify, evaluate, and consider cultural resources, including prehistoric sites, Native American human remains, and traditional cultural properties, Native Americans would be consulted. The California Native American Heritage Commission (CNAHC) would be asked to provide a list of Native Americans who should be contacted concerning an identified future project. The NAHC would also be asked to search its Sacred Lands Files. Native Americans identified by the NAHC would be contacted by letter to request information on cultural resources of importance. They also would be asked to identify concerns they have about the project. THPOs and Tribal Administrators of federally recognized tribes would be contacted and asked to search their files and provide information necessary for the identification and consideration of cultural resources.*

- *Before any project-specific ground-disturbing activities begin, conduct investigations to identify submerged cultural resources. These investigations would include review of State Lands Commission (SLC) Shipwrecks Database and other SLC files, and remote sensing surveys conducted under the direction of a qualified maritime archaeologist. If avoidance of significant submerged cultural resources is not feasible, a permit from SLC may be necessary to conduct resource documentation and possible salvage of artifacts, ship components, and other data and objects.*

- *If CRHR-eligible archaeological resources, including submerged or buried shipwrecks or other maritime-related cultural resources, are discovered during construction activities, work would halt within 100 feet of the discovery until the find can be evaluated by a*

qualified archaeologist or maritime archaeologist as appropriate. In addition, SLC would be consulted.

V. Impact 10-2. Discovery of Unrecorded Human Remains

The EIR finds that the Delta Plan could encourage projects that cause discovery of unrecorded human remains. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 10-2, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from discovery of unrecorded human remains, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 10-2: *Discovery of Unrecorded Human Remains*

The identification, evaluation, and determination of disposition of Native American human remains shall be conducted in accordance with Native American consultation procedures described below and in Mitigation Measure 10-1. The location, content, and character of Native American human remains are confidential and shall not be released to the public. Native American human remains and associated funerary objects shall be treated with the utmost respect and in accordance with the direction of the identified Most Likely Descendant (MLD).

- *If human remains are encountered during ground-disturbing construction activities, stop work that would potentially affect the find and contact the county coroner.*
  - *In accordance with the California Health and Safety Code and the California Native American Grave Protection and Repatriation Act (CNAGPRA), if human remains are uncovered during ground-disturbing activities, the contractor shall immediately halt potentially damaging excavation in the area of the burial and notify the county coroner, a professional archaeologist to determine the nature of the remains, and a representative of California Indian tribes. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by telephone within 24 hours of making that determination (Health and Safety Code section 7050[c]).*
  - *Following the coroner's findings, the property owner, contractor or project proponent, an archaeologist, and the NAHC-designated ~~Most Likely Descendent (MLD)~~ shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code section 5097.9.*

- *Upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations after being granted access to the site.*
- *A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendents, or other culturally appropriate treatment, may be discussed. California Public Resources Code section 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that the landowner shall employ:*
  (1) Record the site with the NAHC or the appropriate information center.
  (2) Use an open space or conservation zoning designation or easement.
  (3) Record a document with the county in which the property is located.
- *The landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The landowner or his or her authorized representative may also reinter the remains in a location not subject to further disturbance if he or she rejects the recommendation of the MLD and mediation by the NAHC fails to provide measures acceptable to the landowner.*

♦ *If the discovery of human remains occurs on lands owned and administered by a federal agency, the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) will apply. NAGPRA requires federal agencies and certain recipients of federal funds to document Native American human remains and cultural items in their collections, notify native groups of their holdings, and provide an opportunity for repatriation of these materials. The act also requires planning for dealing with potential future collections of Native American human remains and associated funerary objects, sacred objects, and objects of cultural patrimony.*

W. Impact 10-3. Disturbance or Destruction of Historic Buildings, Structures, and Linear Features

The EIR finds that the Delta Plan could encourage projects that cause disturbance or destruction of historic buildings, structures, and linear features. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement and flood risk reduction projects, and operation of new reliable water supply projects.

Implementation of Mitigation Measure 10-3, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level.

This mitigation measure would provide for specific ways to minimize the potential for disturbance or destruction of historic buildings, structures, and linear features, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 10-3: *Disturbance or Destruction of Historic Buildings, Structures, and Linear Features*

- *Inventory and evaluate historic-era buildings, structures, and linear features. Conduct cultural resources studies to determine whether historic-era buildings, structures, and linear features in the project area are eligible for listing in the CRHR.*

- *Before construction activities begin, an inventory and evaluation of historic-era resources in the project area should be conducted under the direct supervision of an architectural historian meeting the Secretary of the Interior's Professional Qualification Standards for history or architectural history. The documentation should include conducting an intensive field survey, background research on the history of the project area, and property-specific research. Based on this research, the eligibility of historic-era resources located in the project area should be evaluated by the architectural historian using criteria for listing in the CRHR. The resources would be recorded on DPR 523 forms and the findings documented in a technical report. If federal funding or approval is required, then the project implementation agencies would comply with Section 106 of the National Historic Preservation Act.*

- *Identify measures to avoid significant historic resources. Avoidance through project redesign is the preferred mitigation measure for mitigating potential effects on historic-era buildings, structures, linear features, and archaeological sites that appear to be eligible for listing in the NRHP or CRHR.*

- *Record photographic and written documentation to Historic American Building Survey (HABS)/Historic American Engineering Record (HAER) standards. If avoidance of a significant historic resource is not feasible, the lead agency should ensure that HABS/HAER documentation is completed. Through HABS/HAER documentation, a qualified architectural historian and qualified photographer should formally document the historic resource through large-format photography, measured drawings, written architectural descriptions, and historical narratives. The completed documentation should be submitted to the Library of Congress.*

- *Conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings in the event of relocation. If any historic buildings, structures, or levees are relocated or altered, the lead agency should ensure that any changes to significant buildings or structures conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. Implementation of this measure can mitigate potential changes to significant architectural resources.*

- *Conform to the Secretary of the Interior's Guidance for the Treatment of Cultural Landscapes to preserve landscapes' historic form, features, and details that have evolved over time.*

X. Impact 10-4. Disturbance or Destruction of Cultural Landscapes and Traditional Cultural Properties

The EIR finds that the Delta Plan could encourage projects that cause disturbance or destruction of cultural landscapes and traditional cultural properties. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement and flood risk reduction projects, and operation of new reliable water supply, ecosystem restoration, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 10-4, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from disturbance or destruction of cultural landscapes and traditional cultural properties, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 10-4: *Disturbance or Destruction of Cultural Landscapes and Traditional Cultural Properties*

Mitigation Measures 10-1 and 10-3 will also mitigate Impact 10-4, Disturbance or Destruction of Cultural Landscapes and Traditional Cultural Properties. However, to mitigate Impact 10-4, Mitigation Measure 10-1 surveys and Mitigation Measure 10-3 inventories would focus on cultural landscapes and traditional cultural properties.

Y. Impact 11-1. Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Rupture of a Known Earthquake Fault

The EIR finds that the Delta Plan could encourage projects that cause exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. Reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan could be constructed near earthquake faults. However, because specific locations of these projects with respect to seismic faults are not known at this time, it is impossible to determine impacts due to increased exposure of people or structures to adverse seismic effects or the feasibility of mitigation.

Implementation of Mitigation Measure 11-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts

from exposure the risk of loss, injury, or death involving rupture of a known earthquake fault, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 11-1: *Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Rupture of a Known Earthquake Fault*

- *For construction that occurs in an Alquist-Priolo Special Studies Zone, a determination must be made by a licensed practitioner (California Certified Engineering Geologist) that no fault traces are present within the building footprint of any structure intended for human occupancy. The standard of care for such determinations includes direct examination of potentially affected subsurface materials (soil and/or bedrock) by logging of subsurface trenches. Uncertainties regarding the exact locations of future ground ruptures associated with such determinations generally are resolved by providing a minimum setback of 50 feet from any known surface trace of an active fault. For critical structures, such as hospitals, dams, and emergency facilities, more stringent mitigation measures are required, including but not limited to greater structural setbacks and heavier reinforcement against strong ground motion, in compliance not only with California regulations but in many cases in compliance with additional Federal regulations.*

- *Lead agencies shall ensure that geotechnical design recommendations are included in the design of facilities and construction specifications to minimize the potential impacts from seismic events and the presence of adverse soil conditions. Recommended measures to address adverse conditions shall conform to applicable design codes, guidelines, and standards.*

Z. Impact 11-2. Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death due to Strong Ground Motion Associated with Seismic Shaking

The EIR finds that the Delta Plan could encourage projects that cause exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death due to strong ground motion associated with seismic shaking. Reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan could be located near earthquake faults. However, because specific locations of these projects with respect to areas with potentially strong ground motion are not known at this time, it is impossible to determine impacts due to increased exposure of people or structures to adverse seismic effects or the feasibility of mitigation.

Implementation of Mitigation Measure 11-2, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from exposure to the risk of loss, injury, or death due to strong ground motion associated with

seismic shaking. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 11-2: *Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death due to Strong Ground Motion Associated with Seismic Shaking*

- *Require adherence, at minimum, to the precepts of the current approved version of the International Building Code (IBC). Included in the IBC are measures for mitigation of the impacts of strong ground motion on constructed works. In addition to the California – required conformance with the IBC, for critical structures, such as dams (including levees), hospitals, and emergency facilities, additional construction requirements are codified in federal statutes and the regulations of various federal agencies. Lead agencies will, by force of law, require conformance with these codified mitigation measures.*

AA. Impact 11-3. Construction and Operations of Projects Could Be Located on a Geologic Unit or Soil That Is Unstable, or That Would Become Unstable as a Result of the Project, and Potentially Result in Loss of Bearing Value, Lateral Spreading, Subsidence, Liquefaction or Collapse

The EIR finds that the Delta Plan could encourage projects that cause construction and operations of projects located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in loss of bearing value, lateral spreading, subsidence, liquefaction or collapse. Construction of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan could reduce stability or accelerate subsidence of soils, and operation of these projects in the immediate vicinity unstable soils could result in leakage to the subsurface, possibly resulting in expansion of clayey sediments at shallow depths beneath structures.

Implementation of Mitigation Measure 11-3, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from construction and operations of projects located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in loss of bearing value, lateral spreading, subsidence, liquefaction or collapse. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 11-3: *Construction and Operations of Projects Could Be Located on a Geologic Unit or Soil That Is Unstable, or That Would Become Unstable as a Result of the Project, and Potentially Result in Loss of Bearing Value, Lateral Spreading, Subsidence, Liquefaction or Collapse*

- *For projects that would result in significant or potentially significant grading operations, a geotechnical investigation shall be performed and a geotechnical report prepared.*

The geotechnical report shall include a quantitative analysis to determine whether excavation or fill placement would result in a potential for damage due to soil subsidence during and/or after construction. Project designs shall incorporate measures to reduce the potential damage to an insignificant level, including but not limited to removal and recompaction of existing soils susceptible to subsidence, ground improvement (such as densification by compaction or grouting, soil cementation), and reinforcement of structural components to resist deformation due to subsidence. The site-specific potential for and severity of cyclic seismic loading shall be analyzed in the assessment of subsidence for specific projects.

- *A geotechnical investigation shall be performed by an appropriately licensed professional engineer and/or geologist to determine the presence and thickness of potentially liquefiable sands that could result in loss of bearing value during seismic shaking events. Project designs shall incorporate measures to mitigate the potential damage to an insignificant level, including but not limited to ground improvement (such as grouting or soil cementation), surcharge loading by placement of fill, excavation, soil mixing with non-liquefiable finer-grained materials and replacement of liquefiable materials at shallow depths, and reinforcement of structural components to resist deformation due to liquefaction. An analysis of site-specific probable and credible seismic acceleration values, in accordance with current applicable standards of care, shall be performed to provide for suitable project design.*

- *For projects that would result in construction of wells intended for groundwater extraction, a hydrogeological/geotechnical investigation shall be performed in accordance with the current standards of care for such work by an appropriate licensed professional engineer or geologist to identify and quantify the potential for groundwater extraction-induced subsidence. The study shall include an analysis of existing conditions and modeling of future conditions to assess the potential for aquifer compaction/consolidation.*

- *For projects that would result in construction of surface reservoirs and canals a hydrogeological/geotechnical investigation shall be performed by a licensed professional engineer or geologist to identify and quantify the potential for seeps and springs to develop in areas adjacent to the proposed improvements and to propose mitigation measures. Mitigation of such seepage could include, without limitation, additives to concrete that reduce its permeability, construction of impervious liner systems, and design and construction of subdrainage (passive control) or dewatering systems (active control).*

Geotechnical investigations and preparation of geotechnical reports shall be performed in the responsible care of California licensed geotechnical professionals including professional civil engineers, certified geotechnical engineers, professional geologists, certified engineering geologists, and certified hydrogeologists, all of whom should be practicing within the current standards of care for such work.

BB. Impact 11-4. Construction of Projects Could Result in Substantial Soil Erosion or the Loss of Topsoil

The EIR finds that the Delta Plan could encourage projects that could result in substantial soil erosion or the loss of topsoil. Because reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan would be required to comply with local requirements and State regulations, and projects more than one acre in size would develop and implement site-specific Stormwater Pollution Prevention Plans, soil erosion and topsoil loss would likely be minimized during construction and operation. However, specific project locations with respect to areas subject to soil erosion or loss are not known at this time, making it possible that significant soils loss could occur.

Implementation of Mitigation Measure 11-4, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from substantial soil erosion or the loss of topsoil. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 11-4: *Construction of Projects Could Result in Substantial Soil Erosion or the Loss of Topsoil*

- *Any covered action that would have significant soil erosion and topsoil loss impacts (Impact 11-4) shall incorporate specific measures for future projects that would expand the use of BMPs or optional erosion control measures listed in the SWPPPs. The SWPPP shall identify an effective combination of BMPs to reduce erosion during construction and to prevent erosion during operation. Examples of typical BMPs include:*
  - *Erosion control measures such as silt fencing, sand bags, straw bales and mats, and rice straw wattles shall be placed to reduce erosion and capture sediment. Straw used for erosion control shall be new cereal grain straw derived from rice, wheat, or barley; free of mold and noxious weed seed; and neither derived from dry-farmed crops nor previously used for stable bedding. Clearance shall be obtained from the County Agricultural Commissioner before straw obtained from outside the county is delivered to the work site. Monitoring requirements of the newly revised General Construction Permit shall be implemented, and more effective BMPs shall be identified and installed if runoff samples indicate excessive turbidity.*
  - *During construction activities, topsoil shall be removed, stockpiled, and saved for reapplication following completion of construction. The top 6 inches shall be salvaged and reapplied to a comparable thickness. Soil material shall be placed in a manner that minimizes compaction and promotes plant reestablishment.*
  - *If catch basins are used for sediment capture, the site shall be graded to ensure stormwater runoff flows into the basins, and basins shall be designed for the appropriate storm interval as provided in the General Construction Permit.*

- *Temporary work areas shall be surfaced with a compacted layer of well-graded gravel. They may be covered with a thin asphalt binder. Where expansive or compressible soils are present in temporary work areas, construction trailers shall be supported with concrete pads or footings.*
- *Dust control shall conform to all federal, State, and local requirements and may include use of water trucks, street sweepers, or other methods described in the SWPPP.*
- *Spoils shall be placed in 12-inch-thick loose lifts and compacted to reduce erosion and minimize future subsidence. Placement of peat spoils shall be on agricultural land where possible. Following construction, spoils sites shall be restored to avoid erosion.*

CC. Impact 11-5. Construction of Projects Could Lead to Impacts Associated with the Presence of Expansive Soils

The EIR finds that the Delta Plan could encourage projects that cause could lead to impacts associated with the presence of expansive soils. Reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects located near or on expansive soils could experience heaving, which can cause structural degradation and failure if not accounted for in project design. Specific project locations with respect to areas with expansive soils are not known at this time, making it impossible to accurately determine impacts due to expansive soils or the feasibility of mitigation.

Implementation of Mitigation Measure 11-5, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from the presence of expansive soils. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 11-5: *Construction of Projects Could Lead to Impacts Associated with the Presence of Expansive Soils*

- *In areas where expansive clays exist, a hydrogeological/geotechnical investigation shall be performed by a licensed professional engineer or geologist to identify and quantify the potential for expansion, particularly differential expansion of clayey soils due to leakage and saturation beneath new improvements. Measures could include, but are not limited to removal and recompaction of problematic expansive soils, soil stabilization, and/or reinforcement of constructed improvements to resist deformation due to expansion of subsurface soils.*

DD. Impact 11-6. Operation of Projects Could Result in Impacts Associated with the Occurrence of Nuisance Water in Adjacent Areas Due to Leakage

The EIR finds that the Delta Plan could encourage projects that cause projects that result in impacts associated with the occurrence of nuisance water in adjacent areas due to leakage.

Reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan could result in the formation of surface springs and seeps in adjacent areas due to leakage, which could result in formation of areas of unstable soils and could potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. Specific project locations with respect to areas with potential for nuisance water impacts are not known at this time, making it impossible to accurately determine impacts or the feasibility of mitigation.

Implementation of Mitigation Measure 11-6, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from the occurrence of nuisance water in adjacent areas due to leakage. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 11-6: *Operation of Projects Could Result in Impacts Associated with the Occurrence of Nuisance Water in Adjacent Areas Due to Leakage*

- *For projects that would result in construction of canals, storage reservoirs and other surface impoundments, project design shall provide for protection from leakage to the subsurface. Measures could include, but are not limited to rendering concrete less permeable by specifying concrete additives such as bentonite, design of impermeable liner systems, design of leakage collection and recovery systems, and construction of impermeable subsurface cutoff walls.*

For Impact 11-6b, the following mitigation measures would apply.

- *For ecosystem restoration projects that might cause subsurface seepage of nuisance water onto adjacent lands:*
  - *Perform seepage monitoring studies by measuring the level of shallow groundwater in the adjacent soils, to evaluate the baseline conditions. Continue monitoring for seepage during and after the project implementation.*
  - *Develop a seepage monitoring plan if subsurface seepage constitutes nuisance water to the adjacent land.*
  - *Implement seepage control measures if adjacent land is not useable, such as installing subsurface agricultural drainage systems to avoid raising water levels into crop root zones. Cutoff walls and pumping wells can also be used to mitigate for the occurrence of subsurface nuisance water.*

EE. Impact 11-7. Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Landslides

The EIR finds that the Delta Plan could encourage projects that cause exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Reliable water supply, ecosystem restoration, Delta enhancement, water

quality improvement, and flood risk reduction projects encouraged by the Delta Plan could be located near or on areas with potential for landslides or could result in an increased occurrence of landslides—typically shallow surficial failures on fill slopes during wet months—which could expose people or structures to adverse effects. Specific project locations with respect to areas with potential for landslides are not known at this time, making it impossible to accurately determine impacts or the feasibility of mitigation.

Implementation of Mitigation Measure 11-7, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 11-7: *Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Landslides*

- *For projects that would result in construction of levees, surface impoundments and other fill embankments project design shall incorporate fill placement in accordance with local and State regulations and in accordance with the prevailing standards of care for such work. Measures could include, but are not limited to blending of soils most susceptible to landsliding with soils having higher cohesion characteristics, installation of slope stabilization measures, designing top-of-slope berms or v-ditches, terrace drains and other surface runoff control measures, and designing slopes at lower inclinations.*

FF. Impact 11-8. Have Soils Incapable of Adequately Supporting the Use of Septic Tanks or Alternative Waste Water Disposal Systems Where Sewers are Not Available for the Disposal of Waste Water

The EIR finds that the Delta Plan could encourage projects that cause projects that have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water. Reliable water supply, ecosystem restoration, Delta enhancement, and water quality improvement projects encouraged by the Delta Plan may be sited in locations far from municipalities with sewer connections, and therefore could potentially require a septic system or alternative on-site wastewater disposal system. Specific project locations with respect to areas that cannot effectively support septic systems are not known at this time, making it impossible to accurately determine impacts or the feasibility of mitigation. Flood risk reduction projects are not anticipated to have permanent on-site personnel and therefore will not require septic tank or alternative wastewater disposal systems

Implementation of Mitigation Measure 11-8, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from soils incapable of adequately supporting the use of septic tanks or alternative waste water

disposal systems where sewers are not available for the disposal of waste water. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 11-8: *Have Soils Incapable of Adequately Supporting the Use of Septic Tanks or Alternative Waste Water Disposal Systems Where Sewers are Not Available for the Disposal of Waste Water*

- *A geotechnical investigation shall be performed and a geotechnical report prepared. The geotechnical report shall include a quantitative analysis to determine whether on-site soils would be suitable for an on-site wastewater treatment system. If it is determined that the soil could not support a conventional on-site treatment system, non-conventional systems shall be analyzed. Potential alternative systems include (SWRCB, 2011. Onsite Wastewater Treatment System Scoping Document. April 4, 2011. Site accessed September 1, 2011. http://www.swrcb.ca.gov/water_issues/programs/owts/index.shtml.):*
  - *Containment systems that do not generate waste*
  - *Anoxic and anaerobic systems*
  - *Attached and suspended growth aerobic treatment systems*
  - *Natural treatment systems*
  - *Disinfection systems*
  - *Engineered-fill leach fields*
  - *Monitoring control systems*

GG. Impact 11-9. Substantial Risks to Life or Property Due to Construction of Project Facilities on High Organic Matter Soils

The EIR finds that the Delta Plan could encourage projects that cause substantial risks to life or property due to construction of project facilities on high organic matter soils. Construction of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan on soils with high levels of organic matter could result in structural problems over time because these soils do not provide stable bearing surfaces, tend to settle, and could degrade structural integrity of facilities if not accounted for in project design. Specific project locations with respect to areas with soils with a high concentration of organic materials are not known at this time, making it impossible to accurately determine impacts or the feasibility of mitigation.

Implementation of Mitigation Measure 11-9, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from construction of project facilities on high organic matter soils. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 11-9: *Substantial Risks to Life or Property Due to Construction of Project Facilities on High Organic Matter Soils*

- *For projects that would result in significant or potentially significant risk to structures due to the presence of highly organic soils, lead agencies shall require geotechnical evaluation prior to construction to identify measures to mitigate organic soils. The following measures may be considered:*
  - *Over-excavation and import of suitable fill material*
  - *Structural reinforcement of constructed works to resist deformation*
  - *Construction of structural supports below the depth of highly organic soils into materials with suitable bearing strength*

HH. Impact 12-1. Destruction of Paleontological Resources or Unique Geological Features

The EIR finds that the Delta Plan could encourage projects that cause destruction of paleontological resources or unique geological features. These impacts are likely to be caused primarily by construction of new reliable water supply, water quality improvement and flood risk reduction projects, and operation of new water quality improvement projects.

Implementation of Mitigation Measure 12-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from destruction of paleontological resources or unique geological features, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 12-1: *Destruction of Paleontological Resources or Unique Geological Features*

- *During the project-level analysis, a Paleontological Resources Monitoring and Recovery Plan (PRMRP) shall be developed and implemented for all actions. The PRMRP shall include protocols for paleontological resources monitoring in those areas where sediment with moderate to high paleontological sensitivity would be affected by construction-related excavations. The PRMRP also shall set forth the following procedures:*
  - *Confirming the paleontological sensitivity (high, moderate, or low) of the areas to be impacted through review of project-level geological and geotechnical data*
  - *Determining the qualifications of the paleontologist as established by the Society of Vertebrate Paleontology (SVP) (SVP, 1991. Standard Measures for assessment and mitigation of adverse impacts to nonrenewable paleontological resources.* Society of Vertebrate Paleontology News Bulletin *152:2 – 5; SVP, 1995. Assessment and mitigation of adverse impacts to nonrenewable paleontological resources: Standard guidelines.* Society of Vertebrate Paleontology News Bulletin *163: 22 – 27; SVP, 1996. Conditions of Receivership for Paleontologic Salvage Collections.* Society of Vertebrate Paleontology News Bulletin. *Vol. 166, pp. 31 - 32 ~~1991, 1995, 1996~~)*
  - *The assessment and recovery of discovered fossil resources*
  - *The preparation and curation of fossil finds*

The PRMRP would provide guidelines for the establishment of a yearly or biannual monitoring program led by a qualified paleontologist to determine the extent of fossiliferous sediment being exposed and affected by erosion, and determine whether paleontological resources are being lost. If loss of scientifically significant paleontological resources can be documented, then a recovery program should be implemented.

II. Impact 13-1. Loss of Availability of a Known Mineral Resource that Would Be of Value to the Region and Residents of the State

The EIR finds that the Delta Plan could encourage projects that cause loss of availability of a known mineral resource that would be of value to the region and residents of the state. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects and from operation of new Delta enhancement projects.

Implementation of Mitigation Measure 13-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from loss of availability of a known mineral resource that would be of value to the region and residents of the state, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 13-1: *Loss of Availability of a Known Mineral Resource that Would Be of Value to the Region and Residents of the State*

- *Ensure land use compatibility between existing mineral resource extraction activities and projects, activities or actions that may be implemented as the result of the Proposed Project.*

- *Maintain adequate buffer between future projects and designated MRZ-2 sectors.*

- *Explore opportunities to classify and designate new MRZ-2 sectors (e.g., in existing MRZ-3 sectors) to ensure that important mineral resources are conserved and continue to be available for future construction needs.*

- *Ensure future land use changes within designated mineral resource extraction areas recognize mineral resource extraction as a compatible use.*

- *Limit use of construction aggregate to local sources with sufficient capacity to meet both project and future local development needs, to the extent possible.*

- *Use recycled aggregate where possible, to decrease the demand for new aggregate.*

JJ. Impact 15-1. Exposure of Sensitive Receptors to Excessive Temporary, Short-term Construction Noise

The EIR finds that the Delta Plan could encourage projects that cause exposure of sensitive receptors to excessive temporary, short-term construction noise. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 15-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from exposure of sensitive receptors to excessive temporary, short-term construction noise, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 15-1: *Exposure of Sensitive Receptors to Excessive Temporary, Short-term Construction Noise*

- *Limit the hours of operation at noise-generation sources located near or adjacent to noise-sensitive areas, wherever practicable, to reduce the level of exposure to meet applicable local standards.*

- *Locate construction equipment away from sensitive receptors, to the extent feasible, to reduce noise levels below applicable local standards.*

- *Maintain construction equipment to manufacturers' recommended specifications, and equip all construction vehicles and equipment with appropriate mufflers and other approved noise-control devices.*

- *Limit idling of construction equipment to the extent feasible to reduce the time that noise is emitted.*

- *Conduct individual traffic noise analysis of identified haul routes and provide mitigation, such as reduced speed limits, at locations where noise standards cannot be maintained for sensitive receptors.*

- *Incorporate use of temporary noise barriers, such as acoustical panel systems, between construction activities and sensitive receptors if it is concluded that they would be effective in reducing noise exposure to sensitive receptors.*

- *Near sensitive receptors, avoid or minimize use of construction equipment known to generate high levels of groundborne vibration (for example, pile drivers).*

KK. Impact 15-2. Temporary and Short-term Exposure of Sensitive Receptors to Excessive Groundborne Vibrations

The EIR finds that the Delta Plan could encourage projects that cause temporary and short-term exposure of sensitive receptors to excessive groundborne vibrations. These impacts are likely to

be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 15-2, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from temporary and short-term exposure of sensitive receptors to excessive groundborne vibrations, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 15-2: *Temporary and Short-term Exposure of Sensitive Receptors to Excessive Groundborne Vibrations*

- *Conduct a preliminary groundborne vibration analysis report to determine future construction-related groundborne vibration levels based on, but not limited to, a detailed equipment list, hours of operation and distances to sensitive receptors located within 500 feet of project sites.*

- *Provided that future groundborne vibration results in significant impacts at sensitive receptors, the following measures shall be implemented:*
  - *Designate a complaint coordinator and post this person's contact information in a location near construction areas where it is clearly visible to the nearby receptors most likely to be affected. The coordinator will manage complaints and concerns resulting from activities that cause vibrations. The severity of the vibration concern should be assessed by the coordinator and, if necessary, evaluated by a qualified noise and vibration control expert.*
  - *Vibration monitoring will be conducted before and during vibration generating operations occurring within 100 feet of historic structures. Every attempt will be made to limit construction-generated vibration levels during pile driving and other groundborne noise and vibration-generating activities in the vicinity of the historic structures in accordance with recommendations of the appropriate agency with authority.*
  - *Adjacent historic features will be covered or temporarily shored, as necessary, for protection from vibrations, in consultation with the appropriate cultural resources authority.*
  - *Pile driving required within a 50-foot radius of residences will use alternative installation methods where possible (e.g., pile cushioning, jetting, predrilling, cast-in-place systems, resonance-free vibratory pile drivers). This would reduce the number and amplitude of blows required to seat the pile.*
  - *Pile-driving activities conducted within 285 feet of sensitive receptors will occur during daytime hours to avoid sleep disturbance during evening and nighttime hours.*

LL. Impact 15-3. Long-term Exposure of Sensitive Receptors to Excessive Noise from Operations

The EIR finds that the Delta Plan could encourage projects that cause long-term exposure of sensitive receptors to excessive noise from operations. These impacts are likely to be caused primarily by operation of new reliable water supply and water quality improvement projects.

Implementation of Mitigation Measure 15-3, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from long-term exposure of sensitive receptors to excessive noise from operations, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 15-3: *Long-term Exposure of Sensitive Receptors to Excessive Noise from Operations*

- *Identify noise-sensitive receptors in the vicinity of project activities and design projects to minimize exposure of sensitive receptors to long-term, operational noise sources (for example, water pumps) to reduce noise levels below applicable local standards.*

- *Conduct a preliminary noise analysis report to determine future operation-related noise and distances to sensitive receptors. Provided that future operation-related noise results in significant at sensitive receptors, incorporate into construction design measures such as a structure encasing the new noise generating infrastructure. Materials (masonry brick, metal shed, wood) used to house the infrastructure will be of solid construction and void of gaps at the ground, roof line, and joints. All vents will include acoustically rated louvers.*

- *Locate dog parks no closer than 200 feet from the nearest residential property line and at least 75 feet from habitat for noise-sensitive wildlife species.*

- *Locate parking lots no closer than 65 feet from the nearest residential property line and at least 25 feet from habitat for noise-sensitive wildlife species unless a detailed noise study is conducted that determines that placement of parking lots closer than the distances specified above will not result in noise levels that exceed 67 dBA at the nearest residential property line or 60 dBA from noise-sensitive habitat, or appropriate mitigation measures, including permanent noise barriers, can be incorporated to reduce noise levels to equal the ambient noise level or referenced thresholds for residential property and noise sensitive habitat.*

- *Locate playing fields no closer than located at least 125 feet from the nearest residential property line and at least 50 feet from habitat for noise-sensitive wildlife species unless a detailed noise study is conducted that determines that placement of playing fields closer than the distances specified above will not result in noise levels that exceed 67 dBA at the nearest residential property line or 60 dBA from noise-sensitive habitat, or appropriate mitigation measures, including permanent noise barriers, can be incorporated to reduce*

noise levels to equal the ambient noise level or referenced thresholds for residential property and noise sensitive habitat.

MM. Impact 18-1. Impair, Degrade, or Eliminate Recreation Facilities and Activities

The EIR finds that the Delta Plan could encourage projects that impair, degrade, or eliminate recreation facilities and activities. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 18-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from impairing, degrading, or eliminating recreation facilities and activities, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 18-1: *Impair, Degrade, or Eliminate Recreation Facilities and Activities*

- *If the substantial impairment, degradation, or elimination of recreational facilities occurs, replacement facilities of equal capacity and quality with ongoing funding provided for maintenance of these facilities.*

- *If degradation or impairment of recreational facilities, settings, and activities occur from implementation of water use efficient practices and water conservation measures at recreational areas, the park and recreation areas shall be redeveloped with drought-tolerant plant materials, water efficient irrigation systems, and synthetic turf substitutes where appropriate, in such a way as to retain recreational facilities and use areas.*

- *If the volume of water exported from the Delta declines over multiple years, the lead agencies that implement local water supplies may be unable to develop a long-term replacement water supply for the south-of-Delta surface water reservoirs with recreation uses. At these sites, facilities must be modified (including access facilities, as necessary) to accommodate lower water elevations or more frequent fluctuations in water elevations that could occur more frequently in the Proposed Project than under existing conditions.*

NN. Impact 18-2. Increase the Use of Existing Recreational Facilities Such That Substantial Physical Deterioration of the Facility Would Occur or Be Accelerated

The EIR finds that the Delta Plan could encourage projects that increase the use of existing recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. These impacts are likely to stem from construction and operation of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects, primarily due to displacement of existing recreational uses to other facilities.

Implementation of Mitigation Measure 18-2, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts by increasing the use of existing recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 18-2: *Increase the Use of Existing Recreational Facilities Such That Substantial Physical Deterioration of the Facility Would Occur or Be Accelerated*

- *If substantial temporary or permanent impairment, degradation, or elimination of recreational facilities causes users to be directed towards other existing facilities, lead agencies shall coordinate with impacted public and private recreation providers to direct displaced users to under-utilized recreational facilities.*

- *Lead agencies shall provide additional operations and maintenance of existing facilities in order to prevent deterioration of these facilities.*

- *If possible, lead agencies shall provide temporary replacement facilities.*

- *If the increase in use is temporary, once use is decreased back to existing conditions, degraded facilities shall be rehabilitated or restored.*

- *Where impacts to existing facilities are unavoidable, compensate for impacts through mitigation, restoration, or preservation off-site or creation of additional permanent new replacement facilities.*

OO. Impact 18-3. Require the Construction or Expansion of Recreation Facilities Which Might Have an Adverse Physical Effect on the Environment

The EIR finds that the Delta Plan could encourage projects that require the construction or expansion of recreation facilities which might have an adverse physical effect on the environment. These impacts are likely to stem from construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects, primarily due to displacement of existing recreational uses to other facilities.

Implementation of Mitigation Measure 18-3, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from requiring the construction or expansion of recreation facilities which might have an adverse physical effect on the environment, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 18-3: *Require the Construction or Expansion of Recreation Facilities Which Might Have an Adverse Physical Effect on the Environment*

- *Projects shall be sited in areas that would have minimal adverse physical effect on the environment.*

- *Where impacts to the environment are unavoidable, compensate for impacts through mitigation, restoration, or preservation off-site or creation of additional permanent new replacement facilities.*

PP. Impact 19-1. Construction- and Operations-related Conflict with an Applicable Plan, Ordinance, or Policy Establishing Measures of Effectiveness for the Performance of the Circulation System, Taking into Account All Modes of Transportation

The EIR finds that the Delta Plan could encourage projects that cause construction- and operations-related conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 19-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from construction- and operations-related conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 19-1: *Construction- and Operations-related Conflict with an Applicable Plan, Ordinance, or Policy Establishing Measures of Effectiveness for the Performance of the Circulation System, Taking into Account All Modes of Transportation*

- *Avoid modifications to federal, State, and county highways, local roadways, and bridges that may reduce vehicle capacity, to the extent feasible.*

- *Develop and implement a traffic control plan to reduce effects of roadway construction activities, including full and partial lane closures, bicycle and pedestrian facility closures, and reduced access to adjacent properties. Minimize lane closures during morning and evening peak hours. Limit lane closures near the affected segment. Reroute bicycle and pedestrian access around the project area. Prevent bicyclists and pedestrians from entering the work area.*

- *As part of the traffic control plan, identify specific project-vehicle access routes that would avoid additional traffic in residential areas or would adversely affect other sensitive land uses, where feasible.*

- *Install roadway status signs at strategic locations in the Delta to inform the public of roadway closures and limits to ingress to/egress from Delta Islands. The signs shall include maps showing the relative locations of road closures and access restrictions to other Delta features.*

- *For project operations that increase traffic, prepare a traffic study. Determine haul routes that would be used. Evaluate the levels of service at affected intersections and road segments during the peak a.m. and peak p.m. periods. Model changes in traffic with project traffic. If the level of service is maintained at levels acceptable to the appropriate agency, then no additional mitigation is required. If project traffic causes an intersection or road segment to perform below the minimum level of service standard, then select an alternate route for project traffic or schedule project trips for non-peak-hour periods. If alternate routes are not feasible, then design and construct facility improvements to intersections or road segments to maintain the acceptable level of service.*

- *During the planning and analysis of site-specific actions, coordinate with Caltrans and/or other local agencies with jurisdiction over transportation system features for the purpose of minimizing impacts on bridges, roadways, culverts, or other features that may be affected. Agencies responsible for constructing and maintaining levees on which a public roadway may be located shall also be consulted to ensure consistency with levee design criteria.*

- *For roads that will be flooded during floodplain operation, prepare and implement vehicular traffic detour planning as necessary. Provide convenient and parallel vehicular traffic detours for routes closed because of inundation. A detour plan shall be prepared and implemented in accordance with current Caltrans Standard Plans and Specifications. (A temporary crossing structure, for example a Bailey Bridge, may be used to maintain circulation and avoid a detour plan.) The detour plan shall be implemented before roadway inundation.*

  The detour plan will include an assessment of existing roadway conditions, whether paved or unpaved, and provisions for repair and maintenance if the roadway conditions are substantially degraded from increased use. After the detour route is identified and before flood flows are released that would overtop roads, the condition of the detour road surface will be assessed and documented. The documentation will be submitted to the local agency responsible for maintenance of the road. After the detour is no longer needed, the condition of the road surface will be assessed and documented. The documentation will identify substantial changes in the condition of the road surface, such as potholing or rutting. Repair and maintenance actions needed to restore the road surface to predetour conditions will be identified. In coordination with the local

maintenance agency, the repair and maintenance actions may be conducted by the agency conducting the floodplain operation or by the local maintenance agency to be proportionately reimbursed by the flood management authority.

The detour plan will prioritize paved roads for use as detour routes. If use of paved roadway detours is not feasible during flood flow road inundation periods, the detour plan will require that visible dust emissions from unpaved detour routes will be limited to the percent opacity indicated by the appropriate air pollution control district. The following dust control measures may be used to stabilize unpaved roadways:

- *Watering*
- *Uniform layer of washed gravel*
- *Roadmix*
- *Paving*

Any other method that can be demonstrated to the satisfaction of the appropriate air pollution control district that effectively limits visible dust emission to the local percent opacity standard and meets the conditions of a stabilized unpaved road.

- *Traffic impact reports shall be prepared that meet the applicable agencies' standards to assess potential impacts on appropriate street segments and intersections. The traffic impact reports shall identify impacts that exceed the agencies' guidelines for significance and identify appropriate mitigation. Acceptable mitigation measures may include:*
  - *Turn restrictions*
  - *Roadway widening to add lanes or shoulders*
  - *Redesign of freeway on- and off-ramps*
  - *Median construction/modification to restrict access*
  - *Flaring of intersections to add turn lanes*
  - *Provision of passing lanes or turnouts*
  - *Acceleration and deceleration lanes*
  - *Removal of obstructions*
  - *Roundabouts*
  - *Restriping to add lanes with or without parking removal and restrictions*
  - *Protected left-turn pockets or free right-turn lanes*
  - *Parking restrictions, daily or during peak hours*
  - *Fair share contributions to approved projects identified in the agency's Capital Improvement Plan*
  - *Fair share contributions to traffic signals identified in the agency's traffic signal plan.*

- *Prepare and implement a waterway traffic control plan to ensure safe and efficient vessel navigation during construction in waterways. The plan shall identify vessel traffic control measures to minimize congestion and navigation hazards to the extent feasible. Construction areas in the waterway will be barricaded or guarded by readily visible barriers or other effective means to warn boaters of their presence and restrict access.*

Warning devices and signage will be consistent with the California Uniform State Waterway Marking System and effective during nondaylight hours and periods of dense fog.

- *Where temporary partial channel closure is necessary, a temporary channel closure plan shall be developed. The waterway closure plan will identify and implement alternate detour routing and procedures for notifying boaters of construction activities and partial closures, including coordination with the U.S. Coast Guard, local boating organizations and marinas.*

- *To the extent feasible, ensure that safe boat access to public launch and docking facilities, businesses, and residences is maintained.*

- *Coordinate with transit system operators to establish appropriate alternate transit system routes to be rerouted during construction activities, as appropriate.*

- *Boat passage facilities shall be provided as an integral component of operable gate facilities, when feasible. Boat passage facilities shall be designed to provide uninterrupted boat passage when gate are in the "up" position. Floating docks with mooring bits shall be provided along the shoreline on both sides of the boat passage facility for boaters to use while they await passage. Floating barriers will guide boats into the passage facility chambers.*

- *Implement a program to provide boater education on procedures for waiting at and using the boat passage facility.*

- *Minimize impacts on bicycle and pedestrian circulation where feasible by avoiding impacts, minimizing closure of paths, and providing for temporary or permanent relocation of the facility to the extent feasible. Consult with the appropriate public works department to determine the most feasible alignment for facility relocation.*

QQ. Impact 19-2. Potential Increase in Hazards Related to a Design Feature

The EIR finds that the Delta Plan could encourage projects that cause potential increases in hazards related to a design feature. These impacts are likely to be caused primarily by construction of new flood risk reduction projects and from operation of new ecosystem restoration and flood risk reduction projects.

Implementation of Mitigation Measure 19-2 set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize impacts from potential increases in hazards related to a design feature, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 19-2: *Potential Increase in Hazards Related to a Design Feature*

- *Develop and implement a program that will include procedures for routine inspections and emergency facility operation to allow safe navigation should the facility become damaged or malfunction. The program will include the following specific components:*
  - *Routine inspections and correction procedures to ensure that facility safety features are in good working order.*
  - *Routine inspections and correction procedures for navigational hazards around facilities, including floating or submerged debris and the formation of shoals.*
  - *Contingency and emergency operating procedures to address the possibility that a boat colliding with the flow control facilities will damage the facilities or otherwise render them unable to operate as engineered, and provisions to allow safe navigation.*

RR. Impact 19-3. Potential Reduction in Adequate Emergency Access

The EIR finds that the Delta Plan could encourage projects that cause potential reduction in adequate emergency access. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 19-3, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize impacts from potential reduction in adequate emergency access, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 19-3: *Potential Reduction in Adequate Emergency Access*

- *Coordinate with responsible local agencies to establish appropriate emergency routes during construction activities and before existing emergency routes are reclassified to a nonemergency route use.*

- *Phase construction activities, and use multiple routes to and from offsite locations to minimize the daily amount of traffic on individual roadways.*

- *Post warnings about the potential presence of slow-moving vehicles.*

- *Use traffic-control personnel when appropriate.*

- *Place and maintain barriers, and install traffic-control devices necessary for safety, as specified in Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones and in accordance with city and county requirements.*

- *Notify appropriate emergency service providers of project construction throughout the construction period to ensure that emergency access through construction areas is maintained.*

SS. Impact 19-4. Construction- and Operations-related Conflict with Adopted Policies, Plans, or Programs Regarding Bicycle or Pedestrian Facilities

The EIR finds that the Delta Plan could encourage projects that cause construction- and operations-related conflict with adopted policies, plans, or programs regarding bicycle or pedestrian facilities. These impacts are likely to be caused primarily by construction of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects and from operation of new Delta enhancement projects.

Implementation of Mitigation Measure 19-4, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from construction- and operations-related conflict with adopted policies, plans, or programs regarding bicycle or pedestrian facilities, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 19-4: *Construction- and Operations-related Conflict with Adopted Policies, Plans, or Programs Regarding Bicycle or Pedestrian Facilities*

- *Implement Mitigation Measure 19-1, above. The portion of the measure that addresses minimizing impacts on bicycle and pedestrian circulation also would apply to Impact 19-4a through e.*

TT. Impact 21-1. Construction and Operations of Projects Could Result in an Increase in Greenhouse Gas (GHG) Emissions That May Have a Significant Impact on the Environment

The EIR finds that the Delta Plan could encourage projects that cause construction and operations of projects that could result in an increase in greenhouse gas emissions that may have a significant impact on the environment. These impacts are likely to be caused primarily by construction and operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 21-1, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from construction and operations of projects that could result in an increase in greenhouse gas emissions that may have a significant impact on the environment, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 21-1 *Construction and Operations of Projects Could Result in an Increase in Greenhouse Gas (GHG) Emissions That May Have a Significant Impact on the Environment*

Construction

Implement GHG mitigation measures listed in the most recent California Air Pollution Control Officers Association (CAPCOA), BAAQMD, and other air district guidance documents (e.g., CAPCOA, 2010. Quantifying Greenhouse Gas Mitigation Measures. A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. Sacramento, California. August, p. 210-232; BAAQMD, 2011. California Environmental Quality Act Air Quality Guidelines. San Francisco, California. Updated May 2011, p. 8-6). Current versions of such guidance documents list the following for construction:

1. *Use alternative fuels for construction equipment.*
2. *Use electric and hybrid construction equipment.*
3. *Limit construction equipment idling beyond regulatory requirements.*
4. *Institute a heavy-duty off-road vehicle plan.*
5. *Implement a construction vehicle inventory tracking system.*
6. *Use local building materials for at least ten percent of total materials.*
7. *Recycling or reusing at least 50 percent of construction waste or demolition materials.*

In addition, the California Attorney General's Office has developed a list of various measures that may reduce GHG emissions at the individual project level. A selected list of those proposed measures that could be applied to DWR projects was appended to the DWR guidance document, titled Guidance for Quantifying Greenhouse Gas Emissions and Determining the Significance of their Contribution to Global Climate Change for CEQA Purposes (DWR, 2010e. Guidance for Quantifying Greenhouse Gas Emissions and Determining the Significance of their Contribution to Global Climate Change for CEQA Purposes. California Department of Water Resources Internal Guidance Document. CEQA Climate Change Committee. Sacramento, CA. January, Appendix B). As appropriate, the measures can be included as design features of a project, required as changes to the project, or imposed as mitigation (whether undertaken directly by the project proponent or funded by mitigation fees). The measures are examples; the list is not intended to be exhaustive. The following may serve as BMPs to be considered and implemented (as applicable) during design, construction, operation, and maintenance of project facilities.

Efficiency

1. *Design buildings to be energy efficient. Site buildings to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.*
2. *Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings.*
3. *Install light colored "cool" roofs, cool pavements, and strategically placed shade trees.*
4. *Install energy efficient heating and cooling systems, appliances and equipment, and control systems.*
5. *Install light-emitting diodes for street and other outdoor lighting.*
6. *Limit the hours of operation of outdoor lighting.*

7. *Provide education on energy efficiency.*

Renewable Energy

1. *Install solar and wind power systems and energy-efficient heating ventilation and air conditioning.*
2. *Install solar panels over parking areas.*
3. *Use combined heat and power in appropriate applications.*

Water Conservation and Efficiency

1. *Create water-efficient landscapes.*
2. *Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.*
3. *Use reclaimed water for landscape irrigation. Install the infrastructure to deliver and use reclaimed water.*
4. *Design buildings to be water-efficient. Install water-efficient fixtures and appliances.*
5. *Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff.*
6. *Restrict the use of water for cleaning outdoor surfaces and vehicles.*
7. *Implement low-impact development practices that maintain the existing hydrologic character of the site to manage stormwater and protect the environment. (Retaining stormwater runoff on-site can drastically reduce the need for energy-intensive imported water at the site.)*
8. *Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include many of the specific items listed above, plus other innovative measures that are appropriate to the specific project.*
9. *Provide education about water conservation.*

Solid Waste Measures

1. *Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).*
2. *Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.*
3. *Recover by-product methane to generate electricity.*

Transportation and Motor Vehicles

1. *Limit idling time for commercial vehicles, including delivery and construction vehicles.*
2. *Use low or zero-emission vehicles, including construction vehicles.*
3. *Institute a heavy-duty off-road vehicle plan and a construction vehicle inventory tracking system for construction projects.*
4. *Promote ride sharing.*
5. *Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).*

6. *Increase the cost of driving and parking private vehicles by, e.g., imposing tolls and parking fees.*
7. *Provide shuttle service to public transit/[work sites].*
8. *Provide information on all options for individuals and businesses to reduce transportation-related emissions.*

Carbon Offsets

1. *If, after analyzing and requiring all reasonable and feasible on-site mitigation measures for avoiding or reducing greenhouse gas-related impacts, the lead agency determines that additional mitigation is required, the agency may consider additional off-site mitigation. The project proponent could, for example, fund off-site mitigation projects (e.g., alternative energy projects, or energy or water audits for existing projects) that will reduce carbon emissions, conduct an audit of its other existing operations and agree to retrofit, or purchase carbon "credits" from another entity that will undertake mitigation.*
2. *The topic of offsets can be complicated, and a full discussion is outside the scope of this summary document. Issues that the lead agency should consider include:*
    a. *The location of the off-site mitigation. (If the off-site mitigation is far from the project, any additional, non-climate related benefits of the mitigation will be lost to the local community.)*
    b. *Whether the emissions reductions from off-site mitigation can be quantified and verified.*
    c. *Whether the mitigation ratio should be greater than 1:1 to reflect any uncertainty about the effectiveness of the offset.*

SmartWay Truck Efficiency

The strategy involves requiring existing trucks/trailers to be retrofitted with the best available "SmartWay Transport" and/or ARB approved technology. Technologies that reduce GHG emissions from trucks may include devices that reduce aerodynamic drag and rolling resistance. Aerodynamic drag may be reduced using devices such as cab roof fairings, cab side gap fairings, cab side skirts, and on the trailer side, trailer side skirts, gap fairings, and trailer tail. Rolling resistance may be reduced using single wide tires or low-rolling resistance tires and automatic tire inflation systems on both the tractor and the trailer.

Tire Inflation Program

The strategy involves actions to ensure that vehicle tire pressure is maintained to manufacturer specifications.

Blended Cements

The strategy to reduce CO2 emissions involves the addition of blending materials such as limestone, fly ash, natural pozzolan and/or slag to replace some of the clinker in the production of Portland cement.

Anti-idling Enforcement

The strategy guarantees emission reductions as claimed by increasing compliance with anti-

idling rules, thereby reducing the amount of fuel burned through unnecessary idling. Measures may include enhanced field enforcement of anti-idling regulations, increased penalties for violations of anti-idling regulations, and restriction on registrations of heavy-duty diesel vehicles with uncorrected idling violations.

UU. Impact 21-3. Conflict with Operations of Proposed Facilities due to Climate Change and Sea Level Rise

The EIR finds that the Delta Plan could encourage projects that cause conflicts with operations of proposed facilities due to climate change and sea level rise. These impacts are likely to be caused primarily by operation of new reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects.

Implementation of Mitigation Measure 21-3, set forth below, which is hereby adopted and incorporated into the Project, would reduce these impacts, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize the potential for impacts from conflicts with operations of proposed facilities due to climate change and sea level rise, but some impacts could still occur. Therefore, this impact would remain significant and unavoidable.

Mitigation Measure 21-3: *Conflict with Operations of Proposed Facilities due to Climate Change and Sea Level Rise*

- *Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design for ecosystem habitat restoration, including adjacent areas that would allow for migration of the habitat to higher elevations as the surface water elevations increase. Prepare the study in accordance with applicable standards of FEMA, USACE, DWR, and San Francisco Bay Conservation and Development Commission (BCDC). Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, Central Valley Flood Protection Board, and BCDC.*

VI. SIGNIFICANT ADVERSE IMPACTS IDENTIFIED IN THE EIR THAT ARE REDUCED TO A LESS THAN SIGNIFICANT LEVEL FOR COVERED ACTIONS BY MITIGATION MEASURES INCORPORATED INTO THE PROPOSED PROJECT, BUT WILL NOT BE REDUCED TO A LESS-THAN-SIGNIFICANT LEVEL FOR NON-COVERED ACTIONS

The EIR identifies the following significant impacts associated with the Delta Plan. It is hereby determined that, for covered actions, the impacts addressed by these mitigation measures will be mitigated to a less than significant level or avoided by incorporation of these mitigation measures into the Project. Pub. Resources Code §21081(a)(1).) The Council cannot require adoption or implementation of these mitigation measures for non-covered actions, however, because they are within the responsibility and jurisdiction of other public agencies. Pub. Resources Code § 21081(a)(2). Therefore, the impacts will remain significant and unavoidable for non-covered

actions. To the extent that these mitigation measures will not mitigate or avoid all significant effects on the environment for covered actions, and because the Council cannot require adoption or implementation of these mitigation measures for non-covered actions, it is hereby determined that any remaining significant and unavoidable adverse impacts are acceptable for the reasons specified in Section XIV, below. Pub. Resources Code § 21081(a)(3). As explained in Section XI, below, the findings in this Section are based on the EIR, the discussion and analysis in which is hereby incorporated in full by this reference.

A. Impact 3-1. Violate any Water Quality Standards or Waste Discharge Requirements or Substantially Degrade Water Quality

The EIR finds that the Delta Plan could encourage projects that cause violations of water quality standards or waste discharge requirements or substantial degradation of water quality. Construction and operation of reliable water supply projects could disturb water chemistry and liberate certain pollutants in waterways. Construction and operation of ecosystem restoration projects could cause short- or long-term exceedances of water quality standards or otherwise cause water quality degradation, and projects that create new shallow, sediment-accumulating marshy areas with increased hydraulic retention time, including ecosystem restoration sites, could contribute to enhanced bioavailability and risk from bioaccumulative contaminants. Delta enhancement projects could cause sediment disturbance, notably during construction activities and fuel spills during operation. Water quality improvement projects could result in the potential for sediment disturbance, notably during construction activities. Flood risk reduction projects could cause both short-term construction impacts and long-term impacts associated with operations and changes in Delta watershed hydrology.

Implementation of Mitigation Measure 3-1, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. However, the Council cannot require adoption or implementation of this mitigation measure for non-covered actions because they are within the responsibility and jurisdiction of other public agencies; therefore, the impacts remain significant and unavoidable for non-covered actions.

Mitigation Measure 3-1: *Violate any Water Quality Standards or Waste Discharge Requirements or Substantially Degrade Water Quality*

- *For construction of new facilities, all typical construction mitigation measures shall be required. Typical mitigation measures include the following construction-related BMPs:*
  - *Gravel bags, silt fences, etc., shall be placed along the edge of all work areas in order to contain particulates prior to contact with receiving waters.*
  - *All concrete washing and spoils dumping shall occur in a designated location.*
  - *Construction stockpiles shall be covered in order to prevent blowoff or runoff during weather events.*
  - *Severe weather event erosion control materials and devices shall be stored onsite for use as needed.*

- *Soil stabilization, sediment control, wind erosion control, tracking control, non-storm water management, and waste management/materials pollution control.*

♦ *Other BMPs as determined necessary by the regulating entity (city, county).*

♦ *Any new facility with introduced impervious surfaces shall include stormwater control measures that are consistent with the Regional Water Quality Control Board (RWQCB) National Pollutant Discharge Elimination System (NPDES) municipal stormwater runoff requirements. The stormwater control measures shall be designed and implemented to reduce the discharge of stormwater pollutants to the maximum extent practical. Stormwater controls such as bioretention facilities, flow-through planters, detention basins, vegetative swales, covering pollutant sources, oil/water separators, and retention ponds shall be designed to control stormwater quality to the maximum extent practical.*

♦ *Mitigate sediment contaminant bioavailability impacts through (a) the exclusion of bird use or nesting areas from areas that may have excessive selenium or mercury; (b) minimization of methylmercury production; and/or (c) maximization of contaminant degradation before discharge of water, as appropriate.*

For any construction activities with the potential to cause in-river sediment disturbance associated with construction:

♦ *Apply BMPs to avoid or reduce temporary increases in suspended sediment. These BMPs for in-channel construction and levee disturbance may include, but are not limited to, silt curtains, cofferdams, the use of environmental dredges, erosion control on all inward levee slopes, and various levee-stabilization techniques, including revegetation. All construction sites will include preparation of a Storm Water Pollution Prevention Plan and BMPs designed to capture spills and prevent erosion to the waterbody. Turbidity shall be monitored up- and downstream of construction sites as a measure of impact.*

♦ *Apply bank stabilization BMPs, as needed, for any in-channel disturbance, such as:*
- *A 100-foot vegetative or engineered buffer shall be maintained between the construction zone and surface water body.*
- *Native and annual grasses or other vegetative cover shall be established on construction sites immediately upon completion of work causing disturbance, to reduce the potential for erosion close to a waterway or water body.*

Dredging would be particularly prone to the production of re-suspended sediment and contaminants, but potential impacts could be reduced, but not necessarily fully mitigated, through the use of submerged dredge cutter heads, silt curtains, and cofferdams, depending upon the site-specific soil conditions within the channel.

B. Impact 3-2. Substantially Deplete Groundwater Supplies or Interfere Substantially with Groundwater Recharge

The EIR finds that the Delta Plan could encourage projects that substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Any reduction in groundwater levels due to construction of reliable water supply projects would be temporary and there would be no such reductions related to project operations because of local groundwater management requirements. Ecosystem restoration projects could increase groundwater levels, resulting in higher yields in some areas; the potential increase in groundwater extraction in areas outside the Delta that use Delta water would occur in accordance with sustainable groundwater management plans and thus would not result in overdraft of local groundwater supplies, including in areas located upstream of the Delta in the Delta watershed. Any construction-related reduction in groundwater levels attributable to either water quality improvement or flood risk reduction projects would be temporary and there would be no foreseeable groundwater reductions related to operations of those projects. The EIR finds that construction and operation of Delta enhancement projects is likely to have less than significant impacts on groundwater supplies and recharge.

Implementation of Mitigation Measure 3-2, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of this mitigation measure for non-covered actions, the impacts remain significant and unavoidable for those actions.

Mitigation Measure 3-2: *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge*

- *Prior to construction, a survey should be made of all wells located adjacent to the construction site to determine location and depths of the wells and the groundwater surface. During construction of any project that requires dewatering of groundwater, monitoring wells should be installed adjacent to the groundwater dewatering wells or pumps. If the adjacent groundwater declines in a manner that would adversely affect adjacent wells following implementation of dewatering, the dewatering operations should be halted until the following measures are be implemented:*
  - *Install sheet piles to reduce the area influenced by shallow groundwater level declines.*
  - *In case sheet piles are not an option and domestic well yields are affected, water supplies shall be trucked in to satisfy the well user's water supply needs.*
  - *If sheet piles are not effective and the impact on the well yield is important, such that the trucking in of water is not economically feasible, the affected well shall be deepened. Another option for a well that is deep enough would be to lower the pump bowl such that deepened water can be pumped out of the well. If these two options are not feasible, a new, deeper, replacement well shall be installed for groundwater production.*

C. Impact 5-2. Create Or Contribute Runoff Water Which Would Exceed The Capacity Of Existing Or Planned Stormwater Drainage Systems Or Provide Substantial Additional Sources Of Polluted Runoff

The EIR finds that the Delta Plan could encourage projects that create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Construction activities associated with reliable water supply, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan, including paving, vegetation removal, or soil compacting, would increase land surface imperviousness and decrease precipitation losses to soil infiltration, which would result in increases in onsite drainage flow rates, water surface elevations, and velocities. Operation of reliable water supply projects would likely have only localized effects on site and immediately downstream. Operation of Delta enhancement, water quality improvement, and flood risk reduction projects could substantially alter drainage patterns and create or increase on- and offsite flooding if structures were constructed in drainage swales or increased the amount of runoff from development of previously unpaved areas. Ecosystem restoration projects are not likely to drain into existing or planned stormwater drainage systems.

Implementation of Mitigation Measure 5-2, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of this mitigation measure for non-covered actions, the impacts remain significant and unavoidable for those actions.

Mitigation Measure 5-2: *Create or Contribute Runoff Water which would Exceed the Capacity of Existing or Planned Stormwater Drainage Systems or Provide Substantial Additional Sources of Polluted Runoff*

- *Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design of drainage-related mitigations, such as new onsite drainage systems or new cross drainage facilities. Prepare the study in accordance with applicable standards of FEMA, USACE, DWR, CVFPB, as well as the local reclamation districts and flood control agencies and the counties and cities. Design subsequent mitigation measures in accordance with the final study and with the applicable standards of FEMA, USACE, DWR, and CVFPB.*

- *Provide onsite stormwater detention storage at construction and project facility sites that would reduce project-caused, short- and long-term increases in drainage runoff. The storage space would be designed based on the drainage or hydrologic and hydraulic study.*

D. Impact 9-2. Construction and Operations of Projects Could Create Objectionable Odors Affecting a Substantial Number of People

The EIR finds that the Delta Plan could encourage projects that cause construction and

operations of projects that could create objectionable odors affecting a substantial number of people. Construction and operation of reliable water supply, Delta enhancement, and flood risk reduction projects are not expected to result in objectionable odors affecting a substantial number of people. However, some ecosystem restoration projects such as development of wetlands or marshes and some water quality improvement projects such as wastewater treatment plants may be implemented in populated areas and may result in odors.

Implementation of Mitigation Measure 9-2, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of this mitigation measure for non-covered actions, the impacts remain significant and unavoidable for those actions.

Mitigation Measure 9-2: *Construction and Operations of Projects Could Create Objectionable Odors Affecting a Substantial Number of People*

- *Applicants should develop and implement a project-specific Odor Management Plan. Odor control measures that can be incorporated into this plan include, but are not limited to, the following:*
  - *A list of potential odor sources*
  - *Identification and description of the most likely sources of odor*
  - *Identification of potential, intensity, and frequency of odor from likely sources*
  - *A list of odor control technologies and management practices that could be implemented to minimize odor releases*
  - *A protocol for monitoring, recording, reporting and responding to odor events, including notification of the local and downwind jurisdictions of projects that may result in odor complaints, including contact numbers for responsible individuals during construction. If odor an event occurs, construction activity should be suspended until conditions change, removing the cause and resultant odors, or until alternate management practices are implemented that significantly reduce the odors.*

E. Impact 13-2. Loss of Availability of a Locally Important Mineral Resource Recovery Site Delineated on a Local General Plan, Specific Plan, or Other Land Use Plan

The EIR finds that the Delta Plan could encourage projects that cause loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan could affect the availability of locally important mineral resource recovery sites, including oil and natural gas wells and active, permitted mining operations, if they are constructed on or near mineral recovery sites. The location, number, capacity, operational criteria, methods, and duration of construction activities and specific project locations with respect to locally important mineral resource recovery sites are not known at this time, making it impossible to accurately determine impacts or the feasibility of mitigation.

Implementation of Mitigation Measure 13-2, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of this mitigation measure for non-covered actions, the impacts remain significant and unavoidable for those actions.

Mitigation Measure 13-2: *Loss of Availability of a Locally Important Mineral Resource Recovery Site Delineated on a Local General Plan, Specific Plan, or Other Land Use Plan*

- *Ensure access is maintained to existing, active mineral resource extraction sites both during and after project construction.*

- *Implement recommendations identified in the Division of Oil, Gas, and Geothermal Resources of the ~~U.S. Geological Survey~~ State Department of Conservation (DOGGR) construction site well review program (DOC, 2007. Well Review Program: Introduction and Application), such as:*
  - *For all future projects, identify all existing natural gas well sites and oil production facilities within or in close proximity to the project area.*
  - *Identify any oil and natural gas well within 100 feet of any navigable body of water or watercourse perennially covered by water or any officially recognized wildlife preserve as a "critical well" (California Code of Regulations, Title 14, Chapter 4, Article 2, Section 1720(a)(2)(B) and (C)). The State Department of Conservation (DOC) requires that a "critical well" include more stringent blowout prevention equipment than non-critical wells based on pressure testing and rating.*
  - *Identify safety measures to prevent unauthorized access to equipment.*
  - *Include safety shut-down devices on oil and natural gas wells and other equipment, as appropriate.*
  - *Notify DOC of new oil and natural gas wells or changes in oil and natural gas well operations or physical conditions, receive written approval from DOC of the changes, and receive written notification of DOC's inspection of new or changed equipment. The approvals will be primarily related to the ability to: (1) protect all subsurface hydrocarbons and fresh water, (2) protect the environment, (3) use adequate blowout prevention equipment, and (4) use approved drilling and cementing techniques.*
  - *If any plugged/abandoned or unrecorded oil and natural gas wells are uncovered during construction, the DOC should be notified, the wells should undergo remedial well plugging actions, and no structures should be constructed over the abandoned oil and natural gas wells.*
  - *If oil and natural gas wells are under the jurisdiction or a lease from the California State Lands Commission, project proponents should provide additional plans and environmental documentation as required prior to modification of the oil or natural gas wells.*

F. Impact 14-1. Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials or through Reasonably Foreseeable Upset and Accident Conditions involving the Release of Hazardous Materials into the Environment

The EIR finds that the Delta Plan could encourage projects that encourage projects that create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Construction and operation of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan are likely to result in use and storage of small quantities of hazardous materials onsite, as well as the possibility of disturbing areas of soil or groundwater contamination or demolition of structures that could generate hazardous waste. Details of many of the aspects of these projects are not currently known, making it impossible to accurately determine impacts or the feasibility of mitigation.

Implementation of Mitigation Measures 14-1 and 14-2, set forth below, which are hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of these mitigation measures for non-covered actions, the impacts remain significant and unavoidable for those actions.

Mitigation Measure 14-1: *Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials or through Reasonably Foreseeable Upset and Accident Conditions involving the Release of Hazardous Materials into the Environment*

- *Refueling and maintenance of vehicles and equipment to occur only in designated areas that are either bermed or covered with concrete, asphalt, or other impervious surfaces to control potential spills.*
- *Refueling of vehicles and equipment to occur only when employees are present.*
- *Vehicle and equipment service and maintenance conducted only by authorized personnel.*
- *Refueling conducted only with approved pumps, hoses, and nozzles.*
- *Catch-pans placed under equipment to catch potential spills during servicing.*
- *All disconnected hoses placed in containers to collect residual fuel from the hoses.*
- *Vehicle engines shut down during refueling.*
- *No smoking, open flames, or welding allowed in refueling or service areas.*

- *Refueling performed away from bodies of water to prevent contamination of water in the event of a leak or spill.*

- *When refueling is completed, the service truck to leave the project site.*

- *Service trucks provided with fire extinguishers and spill containment equipment, such as absorbents.*

- *Should a spill contaminate soil, the soil shall be placed in containers and disposed of as appropriate. All containers used to store hazardous materials to be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas to be inspected monthly. Results of inspections to be recorded in a logbook maintained onsite.*

- *Provision of an automatic sprinkler system for indoor hazardous material storage areas.*

- *Provision of an exhaust system for indoor hazardous material storage areas.*

- *Separation of incompatible materials by isolating them from each other with a noncombustible partition.*

- *Spill control in all storage, handling, and dispensing areas.*

- *Separate secondary containment for each chemical storage system. The secondary containment is required to hold the entire contents of the tank plus the volume of water for the fire suppression system that could be used for fire protection for a period of 20 minutes in the event of a catastrophic spill.*

In the unlikely event of a spill, the spill shall be reported to the appropriate regulatory agencies and contaminated soil shall be cleaned, treated, and/or removed in accordance with regulatory requirements. Small spills shall be contained and cleaned up immediately by trained, onsite personnel. Larger spills shall be reported via emergency phone numbers to obtain help from offsite containment and cleanup crews. All personnel working on the project during the construction phase shall be trained in handling hazardous materials and the dangers associated with hazardous materials. An onsite health and safety person shall be designated to implement health and safety guidelines and to contact emergency response personnel and the local hospital, if necessary.

If there is a large spill from a service or refueling truck, contaminated soil shall be placed into barrels or trucks by service personnel for offsite disposal at an appropriate facility in accordance with law. If a spill involves hazardous materials quantities equal to or greater than the specific Reportable Quantities as required by regulatory agencies (42 gallons for petroleum products), all federal, State, and local reporting requirements shall be followed. In the event of a fire or injury, the local fire department shall be called.

Mitigation Measure 14-2: *Be Located on a Site Which Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code, Section 65962.5 and, as a Result, Would Create a Significant Hazard to the Public or the Environment*

- *To reduce the risk due to increased exposure to materials that could be released during soil disturbance, worker training programs and breathing apparatus shall be provided. Monitoring programs shall be implemented as areas are excavated to determine the potential for exposure to soil organisms or other constituents.*

- *To reduce risk to the community due to increased exposure to materials that could be released during soil disturbance, public outreach programs shall be conducted to educate the public of the types of construction activities and risks that could occur. In areas near extreme hazards, such as construction in areas with identified petroleum-product pipelines or soils with high concentrations of petroleum products, warning sirens shall be used at construction sites to immediately notify workers and residents. Emergency procedures shall be included in the education and outreach programs for the workers and the community.*

G. Impact 14-2. Be Located on a Site Which Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code, Section 65962.5 and, as a Result, Would Create a Significant Hazard to the Public or the Environment

The EIR finds that the Delta Plan could encourage projects located on a site which is included on a list of hazardous materials sites compiled pursuant to government code, section 65962.5 (the "Cortese List") and, as a result, would create a significant hazard to the public or the environment. Project proponents would be required to consult the Cortese List, which provides site-specific information about the location of hazardous materials release sites and is used for evaluation of project-level environmental impacts. Specific locations of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan are not known at this time, making it impossible to accurately determine construction impacts or the feasibility of mitigation; operation of these projects is not anticipated to cause additional hazards and hazardous materials impacts.

Implementation of Mitigation Measures 14-1 and 14-2 set forth and adopted above, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of these mitigation measures for non-covered actions, the impacts remain significant and unavoidable for those actions.

H. Impact 14-3. Create Vector Habitat that would Pose a Significant Public Health Hazard

The EIR finds that the Delta Plan could encourage projects that create vector habitat that would pose a significant public health hazard.

Construction and operation of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan could result in new areas of standing water that create potential mosquito habitat. Use of best management practices would maintain constant movement of water and minimize standing water, thereby preventing the creation of potential mosquito breeding sites and resulting in less than significant impacts.

Implementation of Mitigation Measure 14-3, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of this mitigation measure for non-covered actions, the impacts remain significant and unavoidable for those actions.

Mitigation Measure 14-3: *Create Vector Habitat that would Pose a Significant Public Health Hazard*

- *Freshwater habitat management to include water-control-structure management, vegetation management, mosquito predator management, drainage improvements, and other best management practices, and coordination with the ~~DFG~~DFW and local mosquito and vector control agencies regarding these strategies and specific techniques to help minimize mosquito production.*

- *Maintenance of permanent ponds that increase the diversity of waterfowl yet decrease the introduction of vectors through constant circulation of water, vegetation control, and periodic draining of ponds.*

- *Tidal management focused on mosquito problems arising from the residual tidal and floodwaters remaining in depressions and cracked ground (Solano County Mosquito Abatement District). 2011. Solano County Mosquito Abatement District~~SCMAD~~, 2011. Site accessed February 6, 2011. http://www.solanomosquito.com).*

- *Avoidance of ponding in tidal marsh habitat or in areas within the waterside of setback levees. Design of ecosystem restoration areas, waterfowl hunting areas, setback levees, parks, canals, and surface water storage facilities to minimize standing water, or use of other methods such as mosquito fish to reduce mosquito breeding.*

I. Impact 14-4. Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous Materials, Substances, or Waste Within 0.25 Mile of An Existing or Proposed School

The EIR finds that the Delta Plan could encourage projects that emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter mile of an existing or proposed school. Construction and operation of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan are likely to result in use and storage of small quantities of

hazardous materials onsite, as well as the possibility of disturbing areas of soil or groundwater contamination or demolition of structures that could generate hazardous waste, all of which could occur within a quarter mile of an existing or proposed school. Details of many of the aspects of these projects are not currently known, making it impossible to accurately determine impacts or the feasibility of mitigation.

Implementation of Mitigation Measures 14-1 and 14-2 set forth and adopted above, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of these mitigation measures for non-covered actions, the impacts remain significant and unavoidable for those actions.

J. Impact 14-5. Increase Safety Hazards for People Residing in or Working in the Project Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within 2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards

The EIR finds that the Delta Plan could encourage projects that increase safety hazards for people residing in or working in the project areas within the vicinity of a private airstrip, within an airport land use plan, or within two miles of a public airport or public use airport, or create airport safety hazards. Construction, operation, and maintenance of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan could place people in proximity to the hazards associated with airport operations; result in safety hazards near airports due to light, glare, or other distractions that interfere with airport operations; or create open water that could attract wildlife, specifically birds, and increase the potential for bird strikes.

Implementation of Mitigation Measure 14-4, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of this mitigation measure for non-covered actions, the impacts remain significant and unavoidable for those actions.

Mitigation Measure 14-4: *Increase Safety Hazards for People Residing in or Working in the Project Areas Within the Vicinity of a Private Airstrip, Within an Airport Land Use Plan, or Within 2 Miles of a Public Airport or Public Use Airport, or Create Airport Safety Hazards*

- *Avoid creating hazardous wildlife attractants within a distance of 10,000 feet of an Airport Operations Area.*

- *Maintain a distance of 5 statute miles between the farthest edge of the Airport Operations Area and hazardous wildlife attractants.*

K. Impact 14-6. Expose People or Structures to a Significant Risk of Loss, Injury or Death involving Wildland Fires

The EIR finds that the Delta Plan could encourage projects that expose people or structures to a significant risk of loss, injury or death involving wildland fires. Construction and operation of reliable water supply projects in high wildland fire risk areas within the Delta watershed or areas outside the Delta that use Delta water could increase the potential for wildland fires caused by construction equipment in the hilly or mountainous terrain, such as in the Coast Ranges, Sierra Nevada, and southern California. The EIR finds that ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects would cause less than significant wildland fire hazard impacts.

Implementation of Mitigation Measure 14-5, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of this mitigation measure for non-covered actions, the impacts remain significant and unavoidable for those actions.

Mitigation Measure 14-5: *Expose People or Structures to a Significant Risk of Loss, Injury or Death involving Wildland Fires*

- *Prepare and implement a fire management plan to minimize potential for wildland fires.*

L. Impact 20-4. Generate Solid Waste That Would Exceed the Permitted Capacity of Local Landfills or Cause Conflicts with Federal, State, and Local Statutes and Regulations Related to Solid Waste

The EIR finds that the Delta Plan could encourage projects that generate solid waste that would exceed the permitted capacity of local landfills or cause conflicts with federal, state, and local statutes and regulations related to solid waste. Construction of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan would involve substantial earthmoving activities, but would not generate large amounts of construction waste that would require disposal at a landfill. Operation of Delta enhancement and some water quality improvement projects (e.g., wastewater treatment facilities) would generate solid waste, but in amounts that would be small compared to landfill capacity and unlikely to cause the permitted capacity of local landfills to be exceeded.

Implementation of Mitigation Measure 20-1, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of this mitigation measure for non-covered actions, the impacts remain significant and unavoidable for those actions.

Mitigation Measure 20-1: *Generate Solid Waste That Would Exceed the Permitted Capacity of Local Landfills or Cause Conflicts with Federal, State, and Local Statutes and Regulations Related to Solid Waste*

- *Establish construction debris disposal fee schedules to promote recycling and minimize solid waste.*

- *Limit disposal of construction debris and other solid waste at local landfills if the landfills have limited capacity.*

- *Dispose of all construction debris at landfills and disposal facilities that are licensed for the type of wastes to be disposed. If the landfills and disposal facilities are not located near future construction sites, include analysis of transportation of solid waste in future environmental documentation for specific projects.*

- *Require construction contractors to prepare construction debris management plans and require reuse or recycling of construction debris.*

- *Develop project-specific solid waste plans to maximize practices that reduce and recycle solid waste and sludge generated by water, wastewater, and stormwater treatment facilities; and collect, recycle, or compost litter and solid waste generated at new facilities designed for visitor use (such as parks and visitor centers).*

M. Impact 20-6. Create a Public Health Hazard from Utility Disruption

The EIR finds that the Delta Plan could encourage projects that create a public health hazard from utility disruption. Construction of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan would involve site grading and similar activities requiring heavy equipment that could cause unintentional damage to or disruption of underground utilities as a result of trenching, augering, or other ground-disturbing activity, particularly if utilities are not carefully surveyed prior to construction.

Implementation of Mitigation Measure 20-2, set forth below, which is hereby adopted and incorporated into the Project, would avoid or reduce these impacts to less-than-significant levels for covered actions. Because the Council cannot mandate adoption or implementation of this mitigation measure for non-covered actions, the impacts remain significant and unavoidable for those actions.

Mitigation Measure 20-2: *Create a Public Health Hazard from Utility Disruption*

- *Relocate or modify existing water, wastewater, and stormwater facilities or electricity transmission systems in a manner that does not affect current operational reliability to existing and projected users.*

- *Coordinate utility relocation and modification with utility providers and local agencies to integrate potential other construction projects and minimize disturbance to the communities.*

- *Verify utility locations through field surveys and services such as Underground Service Alert.*

VII. LESS THAN SIGNIFICANT IMPACTS

The EIR identifies the following as less than significant impacts or as having no impact. Mitigation to further reduce less than significant impacts is not required by CEQA. As explained in Section XI, below, the findings in this Section are based on the EIR, the discussion and analysis in which is hereby incorporated in full by this reference.

A. Impact 3-3. Substantially Change Water Supply Availability to Water Users that Use Delta Water

The Delta Plan would not encourage projects that substantially reduce water supply availability to water users that use Delta water. Decreases in the amount of water available for diversion from the Delta are likely to be offset by implementation of local and regional projects encouraged by the Delta Plan to reduce reliance on the Delta.

This impact would be less than significant, and therefore no mitigation is required.

Mitigation Measure: *No mitigation required*

B. Impact 5-3. Place Housing Within a 100-year Flood Hazard Area as Mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or Other Flood Hazard Delineation Map

The Delta Plan would not encourage projects that place housing within a 100-year flood hazard area as mapped on a federal flood hazard boundary or flood insurance rate map or other flood hazard delineation map. Construction of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan would not promote placement of additional housing within the Delta.

This impact would be less than significant, and therefore no mitigation is required.

Mitigation Measure: *No mitigation required*

C. Impact 16-1. Induce Substantial Population Growth in an Area, Either Directly or Indirectly

The Delta Plan would not encourage projects that induce substantial population growth in an area, either directly or indirectly. Any increase in population generated by construction of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan is likely to be temporary and to fall within planned growth for a county or region. Operation of these projects is either unlikely to require extensive staff or is likely to draw employees from existing residents.

This impact would be less than significant, and therefore no mitigation is required. Nonetheless, implementation of Mitigation Measure 16-1, set forth below, which is hereby adopted and incorporated into the Project, would further reduce these less than significant impacts.

Mitigation Measure 16-1: *Induce Substantial Population Growth in an Area, Either Directly or Indirectly*

- *Require compliance with applicable local policies and regulations regarding the provision of affordable housing.*

- *Construct replacement housing if existing housing will be displaced.*

D. Impact 16-2. Displace Substantial Numbers of Existing Housing and/or People, Necessitating the Construction of Replacement Housing Elsewhere

The Delta Plan would not encourage projects that displace substantial quantities of existing housing and/or people, necessitating the construction of replacement housing elsewhere. To the extent that construction of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan displace people or housing at all, such displacement is not expected to result in housing demand that cannot be met by existing or planned housing in the specific project area.

This impact would be less than significant, and therefore no mitigation is required. Nonetheless, implementation of Mitigation Measure 16-1, set forth and adopted above, would further reduce these less than significant impacts.

E. Impact 17-1. Need for New or Physically Altered Governmental Facilities to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Fire Protection and Emergency Medical Services, Police Protection, Schools, or Libraries

The Delta Plan would not encourage projects that create a need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency medical services, police protection, schools, or libraries. Construction and operation of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan are not expected to generate increased population or increased demand on public services.

This impact would be less than significant, and therefore no mitigation is required. Nonetheless,

implementation of Mitigation Measure 17-1, set forth below, which is hereby adopted and incorporated into the Project, would further reduce these less than significant impacts.

Mitigation Measure 17-1: *Need for New or Physically Altered Governmental Facilities to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Fire Protection and Emergency Medical Services, Police Protection, Schools, or Libraries*

- *Establish construction fee schedules by local agencies for the new or modified facilities to fund additional emergency services potentially required during construction. If emergency services are not needed, a portion of the fees could be refunded.*

- *Develop worker training programs to reduce construction and operations risks.*

- *Develop appropriate emergency access routes and equipment for both land and water access, if applicable (such as in the Delta), that provides for adequate response time. If use of an existing emergency access route becomes limited due to new or modified facilities, additional routes or placement of duplicate equipment on each side of the route limitation could be considered.*

- *Develop traffic plans and emergency response plans for construction and operations phases of new facilities.*

- *Develop all facilities, including parks and ecosystem restoration areas, in accordance with applicable fire codes and regulations, and with adequate fire equipment access routes, occupancy limitations, and fire-protection equipment.*

F. Impact 20-1. Require or Result in the Construction of New Water Treatment Facilities or the Expansion of Existing Facilities, the Construction or Operation of Which Would Have Significant Environmental Effects or Require the Procurement of Additional Water Supply Entitlements

The Delta Plan would not encourage projects that require or result in the construction of new water treatment facilities or the expansion of existing facilities, the construction or operation of which would have significant environmental effects or require the procurement of additional water supply entitlements. Construction and operation of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan are not expected to result in new land development and/or population growth, or in other need for construction of new water systems or expansion of existing systems.

This impact would be less than significant, and therefore no mitigation is required. Nonetheless,

implementation of Mitigation Measure 20-1, set forth below, which is hereby adopted and incorporated into the Project, would further reduce these less than significant impacts.

Mitigation Measure 20-1: *Require or Result in the Construction of New Water Treatment Facilities or the Expansion of Existing Facilities, the Construction or Operation of Which Would Have Significant Environmental Effects or Require the Procurement of Additional Water Supply Entitlements*

- *Establish construction debris disposal fee schedules to promote recycling and minimize solid waste.*

- *Limit disposal of construction debris and other solid waste at local landfills if the landfills have limited capacity.*

- *Dispose of all construction debris at landfills and disposal facilities that are licensed for the type of wastes to be disposed. If the landfills and disposal facilities are not located near future construction sites, include analysis of transportation of solid waste in future environmental documentation for specific projects.*

- *Require construction contractors to prepare construction debris management plans and require reuse or recycling of construction debris.*

- *Develop project-specific solid waste plans to maximize practices that reduce and recycle solid waste and sludge generated by water, wastewater, and stormwater treatment facilities; and collect, recycle, or compost litter and solid waste generated at new facilities designed for visitor use (such as parks and visitor centers).*

G. Impact 20-2. Require or Result in the Construction of New Wastewater Treatment Facilities or the Expansion of Existing Facilities, the Construction or Operation of Which Would Have Significant Environmental Effects

The Delta Plan would not encourage projects that require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities, the construction or operation of which would have significant environmental effects. Construction and operation of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan are not expected to result in new land development and/or population growth, or in other need for construction of new wastewater treatment facilities or expansion of existing facilities.

This impact would be less than significant, and therefore no mitigation is required. Nonetheless, implementation of Mitigation Measure 20-2, set forth below, which is hereby adopted and incorporated into the Project, would further reduce these less than significant impacts.

Mitigation Measure 20-2: *Require or Result in the Construction of New Wastewater Treatment Facilities or the Expansion of Existing Facilities, the Construction or Operation of Which Would*

Have Significant Environmental Effects

- *Relocate or modify existing water, wastewater, and stormwater facilities or electricity transmission systems in a manner that does not affect current operational reliability to existing and projected users.*

- *Coordinate utility relocation and modification with utility providers and local agencies to integrate potential other construction projects and minimize disturbance to the communities.*

- *Verify utility locations through field surveys and services such as Underground Service Alert.*

H. Impact 20-3. Require or Result in the Construction of New Stormwater Drainage Facilities or the Expansion of Existing Facilities, the Construction or Operation of Which Would Have Significant Environmental Effects

The proposed project would not encourage projects that require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities, the construction or operation of which would have significant environmental effects. Construction and operation of reliable water supply, ecosystem restoration, Delta enhancement, water quality improvement, and flood risk reduction projects encouraged by the Delta Plan are not expected to increased impervious surfaces or alter local drainage patterns in areas served by municipal stormwater systems.

This impact would be less than significant, and therefore no mitigation is required.

Mitigation Measure: *No mitigation required*

I. Impact 20-5. Require or Result in the Development of New Electricity Generating Facilities or the Expansion of Existing Facilities, the Construction or Operation of Which Would Have Significant Environmental Effects

The Delta Plan would not encourage projects that require or result in the development of new electricity generating facilities or the expansion of existing facilities, the construction or operation of which would have significant environmental effects. Construction of projects encouraged by the Delta Plan would derive energy from diesel rather than electric power. Some projects would generate electricity (e.g., hydropower units associated with water storage facilities), and others would be very small in the context of overall electricity demands such that they would not require or result in the need to develop new electricity generating facilities.

This impact would be less than significant, and therefore no mitigation is required.

Mitigation Measure: *No mitigation required*

J. Impact 21-2. Construction and Operations of Projects Could Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing Emissions of GHGs

The Delta Plan would not encourage projects that would cause construction and operations of projects could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs. The Delta Plan would support several GHG reduction measures recommended by the California Air Resources Board (e.g., water use efficiency, water recycling, reuse of urban runoff), which would also be beneficial in meeting any local GHG reduction goals.

This impact would be less than significant, and therefore no mitigation is required.

Mitigation Measure: *No mitigation required*

VIII. CUMULATIVE IMPACTS

An EIR is required to discuss the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. State CEQA Guidelines § 15130(a)(1). "Cumulatively considerable" means that the incremental effects of the project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects. State CEQA Guidelines § 15065(a)(3); Pub. Resources Code § 21083(b)(2). Section 22 of the Recirculated Draft PEIR analyzes the cumulative impacts of the Delta Plan in combination with reasonably foreseeable probable future projects, which are listed in Table 22-1 of the Draft PEIR (referred to below as the "cumulative projects"). As explained in Section XI, below, the findings in this Section are based on the EIR, the discussion and analysis in which is hereby incorporated in full by this reference.

A. Water Resources

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could violate water quality standards or waste discharge requirements, or otherwise degrade water quality, in particular during construction. Mitigation Measure 3-1, adopted and incorporated into the Project above, would reduce the Project's contribution to a less than cumulatively considerable level for covered actions. Nonetheless, these cumulative water quality impacts could be significant.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, may create long-term changes in the balance of sedimentation and scour within channels or newly created ecosystem restoration areas, and could increase stream bank erosion and sediments added to water during project operation. Mitigation Measure 3-2, adopted and incorporated into the Project above, would reduce the Project's contribution to a less than cumulatively considerable level for covered actions. Nonetheless, these cumulative impacts could be significant.

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in water quality impacts due to erosion and sedimentation. These cumulative impacts would be less than significant, however, because of standard construction practices including erosion control best management practices.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could deplete groundwater supplies or interfere with groundwater recharge, in particular during project operation. These cumulative impacts would be less than significant, however, because of the overall beneficial effects of the cumulative projects and the Delta Plan.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could substantially reduce water supply availability to water users that use Delta water. However, impacts from projects encouraged by the Delta Plan would be less than significant because decreases in the amount of water available for diversion from the Delta are likely to be offset by implementation of local and regional projects encouraged by the Delta Plan to reduce reliance on the Delta. Accordingly, these cumulative water quality impacts could be significant, but the Project's contribution will be less than cumulatively considerable.

B. Biological Resources

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, could impact sensitive natural communities. These cumulative biological resources impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, could potentially interfere with the movement of native resident or migratory fish or other wildlife species or wildlife corridors. These cumulative biological resources impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, could potentially conflict with local requirements protecting biological resources or adopted habitat conservation or protection plans. These cumulative biological resources impacts could be significant, and the Project could have a considerable contribution.

C. Delta Flood Risk

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, may expose people or structures to flood hazards. These cumulative Delta flood risk impacts could be significant, and the Project could have a considerable contribution.

D. Land Use and Planning

Construction of physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could cause short-term disruptions to roadway and bridge access, thus isolating communities. These cumulative impacts would be less than significant, however, because traffic would be rerouted during the construction period.

Construction of physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could cause a long-term and permanent disruption of local development patterns, including as a result of road closures or rerouting. These cumulative land use and planning impacts could be significant, and the Project could have a considerable contribution.

Operation of physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could cause a long-term and permanent disruption of local development patterns, including as a result of road closures or rerouting. These cumulative impacts would be less than significant, however, because the cumulative projects and the Delta Plan would increase and enhance access to Delta communities.

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, could potentially conflict with local land use plans, policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. These cumulative land use and planning impacts could be significant, and the Project could have a considerable contribution.

E. Agriculture and Forestry Resources

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, could require the conversion of farmland to accommodate new project features, and could conflict with existing agricultural zoning and Williamson Act contracts. The cumulative farmland conversion and zoning conflict impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, could require the conversion of forestland to accommodate new project features, and could conflict with existing forest zoning. The cumulative forestland conversion and zoning conflict impacts could be significant, and the Project could have a considerable contribution.

F. Visual Resources

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, could degrade the visual quality of the existing landscape, affect scenic vistas and scenic resources, and introduce new sources of light

and glare. These cumulative visual impacts could be significant, and the Project could have a considerable contribution.

G. Air Quality

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, could conflict with adopted air quality plans or substantially contribute to an air quality violation. These cumulative visual impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with ecosystem and water quality projects encouraged by the Delta Plan, in combination with the cumulative projects, could expose sensitive receptors to objectionable odors. Mitigation Measure 9-2, adopted and incorporated into the Project above, would reduce the Project's contribution to a less than cumulatively considerable level for covered actions. Nonetheless, these cumulative air quality impacts could be significant.

Physical improvements associated with water supply, flood control and Delta enhancement projects encouraged by the Delta Plan, in combination with the cumulative projects, could expose sensitive receptors to objectionable odors. These cumulative impacts would be less than significant, however, because these types of projects typically do not generate odors.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could expose sensitive receptors to substantial pollutant concentrations, in particular during construction. These cumulative air quality impacts could be significant, and the Project could have a considerable contribution.

H. Cultural Resources

Physical improvements associated with construction and operation of projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in disturbance or destruction of prehistoric or historic archaeological resources; unrecorded human remains; historic buildings, structures and linear features; and cultural landscapes and traditional cultural properties. These cumulative cultural resources impacts could be significant, and the Project could have a considerable contribution.

I. Geology and Soils

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, may expose people or structures to seismic hazards, including fault rupture and strong ground motion. These cumulative seismic hazard impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, may expose people or structures to unstable geological conditions

including unstable geology, expansive soils, landslides and high organic matter soils. These cumulative geologic hazard impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in loss of topsoil associated with ground disturbance, with resulting erosion and sedimentation impacts, in particular during construction. These cumulative soil loss impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in the unintentional formation of seeps and springs and the resulting occurrence of water flowing across dry land. These cumulative nuisance water impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with water supply, ecosystem restoration, water quality and Delta enhancement projects encouraged by the Delta Plan, in combination with the cumulative projects, may require locating facilities in remote areas without access to municipal wastewater systems, which could require the use on on-site septic systems in areas with soil conditions that are unable to properly treat effluent. These cumulative septic system impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with flood control projects encouraged by the Delta Plan, in combination with the cumulative projects, would not be expected to require locating facilities in remote areas without access to municipal wastewater systems or necessitate on-site septic systems in areas with soil conditions that are unable to properly treat effluent. Therefore, these cumulative impacts could be less than significant.

J. Paleontological Resources

Physical improvements associated with construction and operation of water supply, water quality and flood control projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in destruction of paleontological resources. These cumulative paleontological resources impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with construction and operation of ecosystem restoration and Delta enhancement projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in destruction of paleontological resources. These cumulative paleontological resources impacts would be less than significant, however, because these types of projects are likely to occur on disturbed soils and would not involve deep excavation.

K. Mineral Resources

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in a loss of access to known mineral resources,

including sites delineated in local plans. These cumulative mineral resources impacts could be significant, and the Project could have a considerable contribution with respect to loss of availability of known mineral resources. Mitigation Measure 13-2 would maintain access to existing, active extraction sites and require implementation of the DOGGR construction site well review program, thereby reducing the Project's contribution to a less than significant level with respect to preventing loss of availability of locally important mineral resources. Nonetheless, these cumulative mineral resources impacts could be significant.

L. Hazards and Hazardous Materials

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in exposure of the environment and sensitive receptors to hazardous materials related to project construction and operation. Some of these impacts could result from the potential release of existing onsite hazardous materials that are uncovered or otherwise disrupted during construction, and some may occur within 0.25 miles of a school. Mitigation Measures 14-1 and 14-2, adopted and incorporated into the Project above, would reduce the Project's contribution to a less than cumulatively considerable level for covered actions. Nonetheless, these cumulative hazards and hazardous materials impacts could be significant, and the Project could have a considerable contribution.

Construction and operation of physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in areas of standing water, which increases the potential creation of mosquito breeding habitat. Mitigation Measure 14-3, adopted and incorporated into the Project above, would reduce the Project's contribution to a less than cumulatively considerable level for covered actions. Nonetheless, these cumulative hazards impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could expose people or structures to a significant risk of loss, injury or death involving wildland fires. Mitigation Measure 14-5, adopted and incorporated into the Project above, would reduce the Project's contribution to a less than cumulatively considerable level for covered actions. Nonetheless, these cumulative hazards and hazardous materials impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in areas of open surface water within five miles of an Airport Operations Area, which would be attractive to waterfowl and become a hazardous wildlife attractant. These cumulative hazards impacts could be significant, and the Project could have a considerable contribution.

M. Noise

Construction of physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in exposure of sensitive receptors to

excessive temporary, short-term noise. These cumulative noise impacts could be significant, and the Project could have a considerable contribution.

Construction of physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in exposure of sensitive receptors to excessive temporary, short-term groundborne vibrations. These cumulative noise impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with water supply and water quality projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in long-term exposure of sensitive receptors to excessive noise from operations. These cumulative noise impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with ecosystem restoration and flood control projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in long-term exposure of sensitive receptors to excessive noise from operations. These cumulative noise impacts would be less than significant, however, because these types of projects would only generate operation-phase noise for short periods of time and/or infrequently.

N. Population and Housing

Construction of physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could displace housing and/or people. If the resulting housing demand cannot be met within existing housing in the specific project area, this would necessitate the construction of replacement housing elsewhere. These impacts would be less than significant, however, because most of these projects encouraged by the Delta Plan and the cumulative projects would not result in housing demand that cannot be met by existing or planned housing in the specific project area. Moreover, Mitigation Measure 16-1 adopted and incorporated into the Project above, would further reduce the Project's contribution to such a cumulative impact.

O. Public Services

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could place additional demands on public services (e.g., from construction site accidents and security) and disrupt the delivery of police, fire and ambulance service by blocking access or otherwise interfering with service routes. These effects could result in the need for new or expanded public service facilities. These impacts would be less than significant, however, because any such additional demands are likely to be negligible because the Delta Plan does not include new land development or population growth.

P. Recreation

Physical improvements associated with water supply, ecosystem restoration, water quality, and flood control projects encouraged by the Delta Plan, in combination with the cumulative projects, could impair, degrade or eliminate recreational facilities and activities, for example due

to displacement of existing facilities, inundation of shoreline facilities, changes in water flow, conversion of turf to drought-tolerant vegetation, and changes in species composition. These cumulative recreation impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with Delta enhancement projects encouraged by the Delta Plan, in combination with the cumulative projects, would not impair, degrade or eliminate recreational facilities and activities, because of these types of projects are likely to enhance recreational facilities and activities; therefore, these cumulative impacts would be less than significant or beneficial.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could attract more recreation users or displace people from existing recreation facilities, which could require new construction or expansion of existing recreation facilities. These cumulative recreation impacts could be significant, and the Project could have a considerable contribution.

Q. Transportation, Traffic, and Circulation

Construction and operation of physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could conflict with adopted plans and policies that establish measures of effectiveness for the performance of the circulation system. In particular, construction could conflict with plans for roadway performance, and for bicycle and pedestrian paths and trails by blocking access to or otherwise interfering with established routes, increasing traffic congestion, or by damaging road surfaces. Construction also could conflict with adopted plans and policies for navigation, ports, waterways, and ferries by blocking access to or otherwise interfering with established routes through the use of in-water construction, or during operation. Physical improvements could conflict with adopted plans and policies for roadway performance by generating substantial new trips during operations and maintenance activities. In addition, physical improvements could conflict with adopted plans and policies for rail performance if floodplain management actions cause overtopping of rail lines or erosion of the railroad base. Each of these cumulative impacts could be significant, and the Project could have a considerable contribution.

Construction of physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, also could conflict with adopted plans and policies for rail and transit performance by requiring service delays in the construction area, and potentially by rerouting service. These cumulative impacts are expected to be less than significant, however, and the Delta Plan would have a less than significant cumulative impact.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could cause an increase in hazards related to a design feature. These improvements could increase traffic hazards as a result of road relocation, although these cumulative impacts are likely to be less than significant because State and local highway and bridge design criteria would prevent construction of facilities that would not comply with the

design criteria. For the same reason, water supply projects encouraged by the Delta Plan would have less than significant cumulative impacts from road relocations.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, also could increase navigation hazards related to design features through, e.g., tree snags and shoal formation/expansion. These cumulative impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could cause a reduction in adequate emergency access. In particular, these improvements could result inadequate emergency access by blocking access or otherwise interfering with established emergency service routes during construction. These cumulative impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could conflict with adopted plans, policies, or programs for bicycle and pedestrian paths and trails by blocking access or otherwise interfering with established bicycle and pedestrian routes. These cumulative impacts could be significant, and the Project could have a considerable contribution.

R. Utilities and Service Systems

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, would not place additional demands on municipal water, wastewater, and stormwater systems; solid waste disposal capacity; or electricity supplies. The Delta Plan and the cumulative projects do not include new land development and/or population growth, and therefore would add only negligible new demands to existing utilities, with generally less than significant cumulative impacts. Construction and operation of physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in projects that generate solid waste that would exceed the permitted capacity of local landfills or cause conflicts with federal, state, and local statutes and regulations related to solid waste. Mitigation Measure 20-1, adopted and incorporated into the Project above, would reduce the Project's contribution to cumulative solid waste impacts a less than cumulatively considerable level for covered actions.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in unintentional damage to or disruption of underground utilities, especially for projects that include trenching, auguring, or other ground-disturbing activity. Standard construction practices including pre-construction utility surveys, are likely to reduce these cumulative impacts to less than significant levels. Mitigation Measure 20-2, adopted and incorporated into the Project above, would reduce the Project's contribution to a less than cumulatively considerable level for covered actions.

S. Climate Change and Greenhouse Gas Emissions

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could result in an increase in GHG emissions, particularly during construction. These cumulative impacts could be significant, and the Project could have a considerable contribution.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, may conflict with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. These cumulative impacts would be less than significant because many of the cumulative projects also would directly support several GHG reduction measures recommended by the California Air Resources Board. Because the Revised Project would implement similar projects that directly support GHG plans, policies, and regulations, it would have a less than significant cumulative impact.

Physical improvements associated with projects encouraged by the Delta Plan, in combination with the cumulative projects, could be affected by climate change and sea level rise. These cumulative impacts could be significant, and the Project could have a considerable contribution, although there is some potential for beneficial impacts during operations, such as generation of hydroelectric power and carbon sequestration.

IX. GROWTH INDUCING IMPACTS

An EIR is required to discuss growth inducing impacts, which consists of the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. State CEQA Guidelines § 15126.2(d); Pub. Resources Code § 21100(b)(5). Direct growth inducement would result, for example, if a project involves the construction of substantial new housing that would support increased population in a community or established substantial new permanent employment opportunities. This additional population could, in turn, increase demands for public utilities, public services, roads, and other infrastructure. Indirect growth inducement would result if a project stimulates economic activity that requires physical development or removes an obstacle to growth and development (e.g., increasing infrastructure capacity that would enable new or additional development). It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment. State CEQA Guidelines § 15126.2(d). Sections 16 and 24.1 of the Recirculated Draft PEIR analyze the growth inducing impacts of the Delta Plan. As explained in Section XI, below, the findings in this Section are based on the EIR, the discussion and analysis in which is hereby incorporated in full by this reference.

The construction and operation of projects encouraged by the Delta Plan to provide a more reliable water supply and improve water quality could create sustained employment opportunities; the construction and operation of other types of projects encouraged by the Delta Plan would create, at most, temporary or seasonal employment opportunities. As described in Section VII.C, above, such employment opportunities likely would not cause population growth in excess of the planned growth for regions where future projects could be implemented.

Projects encouraged by the Delta Plan, in particular those intended to advance the creation of a more reliable water supply (if the capacity of the projects were expanded more than would be needed to replace any reduced Delta water, or if the projects were built in locations that currently do not have water quality supplies) and the improvement of water quality (if the projects improve existing non-potable water supplies and make them potable), could remove existing constraints to growth and thus indirectly induce growth. Balancing this, some Delta Plan policies discourage urban development beyond areas currently designated for such growth and would expand floodplains in some areas, making them unavailable for development and limiting potential induced growth.

Local development projects to accommodate any induced growth that might result from projects that the Delta Plan encourages could have potentially significant environmental effects related to some or all of the following: traffic congestion, air pollution and greenhouse gas emissions, traffic noise, construction noise, increased demand for public schools and other public services, loss of recreational opportunities and impacts on visual quality resulting from the loss of open space, cumulative effects due to overutilization of parks, loss of wildlife habitat and wetlands, impacts on other biological resources, impacts on cultural resources, increased flooding potential, increased urban runoff pollutants, seismic hazards, failure to meet housing demand for projected population growth, exposure of new development to contaminated soil or groundwater, insufficient water supply, insufficient wastewater disposal capacity, loss of agricultural resources, land use conflicts, conflicts with existing land use plans or policies, and changes in density, scale, and character of an area. All of these potentially significant indirect impacts of the Delta Plan are discussed and analyzed in the Sections 3 through 21 of the EIR.

Such local development projects would be subject to the land use regulations and general plans of the cities and counties in which they are located, as well as CEQA review. If any such growth-related decisions are covered actions, the agency proposing the actions will be required to implement all applicable and feasible mitigation measures identified in the EIR and adopted herein, or equally effective substitute mitigation pursuant to Delta Plan policy G P1, which would reduce or avoid the environmental impacts of induced growth.

X. ALTERNATIVES

The EIR analyzed six alternatives to the Project, examining the environmental impacts and feasibility of each alternative. The Draft EIR analyzed five alternatives in addition to the Fifth Staff Draft Delta Plan, which was the Proposed Project for purposes of the Draft EIR. The Recirculated Draft EIR analyzed the 2012 Final Draft Delta Plan, which is a revision of the Fifth Staff Draft Delta Plan and the Project for purposes of these Findings. The Recirculated Draft EIR retained the Fifth Staff Draft Delta Plan as the "Proposed Project Alternative" in its analysis.

Pursuant to the Delta Reform Act, and as described in Section II of these Findings and in Section 2.1.9 of the Recirculated Draft PEIR, the project objectives are to further achievement of the coequal goals and the eight inherent objectives, in a manner that: (1) furthers the statewide policy to reduce reliance on the Delta in meeting the State's future water supply needs through regional self-reliance, (2) is consistent with specific statutory content requirements for the Delta Plan, (3)

is implementable in a comprehensive, concurrent and interrelated fashion, and (4) is accomplished as rapidly as realistically possible without jeopardizing ultimate success.

Because furthering achievement of the coequal goals requires tradeoffs between different environmental impacts, the EIR analyzes alternatives that combine policies to emphasize different aspects of the coequal goals. The EIR does not consider alternatives that would not advance the coequal goals, would not be feasible, or would not reduce at least one of the Project's environmental impacts; such alternatives that were initially reviewed but rejected for consideration in the EIR are discussed in Section 2.3.1.6 of the Draft EIR, as required by State CEQA Guidelines section 15126.6(c).

The Council certifies that it independently reviewed and considered the information on alternatives provided in the Final EIR and the record of proceedings. The Council finds that no new alternatives that are considerably different from those analyzed in the Final EIR have been identified and that the feasibility of the analyzed alternatives has not changed since the Draft and Recirculated Draft EIRs. Brief summaries of the evaluated alternatives are provided below. As explained in Section XI, below, the findings in this Section are based on the EIR, the discussion and analysis in which is hereby incorporated in full by this reference

A. The Proposed Project Alternative

The Proposed Project Alternative is the August 2011 Fifth Staff Draft Delta Plan. It strikes the same overall balance as the Delta Plan in achieving the coequal goals, with differences relating primarily to the geographic coverage of water supply policy; the extent of encouraged levee improvement and park development; and its clarity, specificity, and thus effectiveness in achieving the Project objectives.

The Proposed Project Alternative is less likely than the Delta Plan to meet the project objectives. In particular, its approaches to improving water supply reliability, habitat restoration, and protection of Delta farmland are not as effective as those of the Delta Plan. Moreover, the Delta Plan provides greater clarity and specificity regarding what actions are required for compliance, including more comprehensive performance measures, which would reduce uncertainty and increase the likelihood that the Delta Plan will meet project objectives in a timely manner. The Proposed Project Alternative also lacks the integrated Science Plan recommended by the Delta Plan and therefore is less able to organize and integrate research, monitoring, analysis, and data management among the numerous entities that can contribute to achieving the project objectives.

The Proposed Project Alternative would result in export of roughly the same amount of water from the Delta and its watershed, as the Delta Plan. It encourages similar measures related to water conservation and efficiency and local and regional water supply projects for users of water diverted from the Delta. The Proposed Project Alternative would not, however, encourage such measures in the upstream Delta watershed, and would thus be less effective in achieving the project objective of reducing water supply reliance on the Delta and improving regional self-reliance. The Proposed Project Alternative also would not encourage development of specific

water quality protection measures or deadlines for establishment of dissolved oxygen criteria for Stockton Deep Water Ship Channel and Suisun Marsh, which are included in the Delta Plan.

The Proposed Project Alternative promotes the restoration of habitat in the Delta, but it does less than the Delta Plan to ensure connections between restored areas, existing habitat, and other key elements of the Delta landscape. The Proposed Project Alternative also does not specify actions needed to protect agricultural lands, historic Legacy Communities, and other unique Delta resources at the same level of detail as provided in the Delta Plan. While the Proposed Project Alternative encourages development of parks in the Delta generally, it does not name two specific parks that are included in the Delta Plan. Thus, the Proposed Project Alternative does less than the Delta Plan to meet the project objective and coequal goal of protecting, restoring, and enhancing the Delta ecosystem in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place.

Overall, the Proposed Project Alternative also would do less than the Delta Plan to arrest or reverse the ongoing decline in Delta environmental conditions. Ultimately, the Proposed Project Alternative would do less than the Delta Plan to further achievement of the coequal goals and eight inherent objectives.

For the foregoing reasons, the Proposed Project Alternative is hereby rejected.

B. Alternative 1A: Export More Water Out of the Delta; Decreased Emphasis on Local and Regional Water Self reliance; Focus Levee Improvements on Protecting Water Supply Corridors

Informed by comments from water users of Delta water in areas south of the Delta, Alternative 1A emphasizes increased exports of water from the Delta, while providing less encouragement for users to increase efficiency, conservation, and local self-reliance.

Policy WR P1 would become a non-binding recommendation under Alternative 1A, rather than a regulatory policy as under the Delta Plan. Thus, agencies proposing covered actions would not have to improve regional self-reliance. Likewise, Alternative 1A would not require any suppliers that export water from, transfer water through, or use water in the Delta to complete and implement urban or agricultural water management plans that include projects to reduce reliance on the Delta. As a result of its increased exports and its weaker encouragement of local and regional water supply projects and water efficiency ad conservation measures, Alternative 1A would be less likely than the Delta Plan to achieve the project objectives, including the objective of reducing reliance on the Delta to meet future statewide water supply needs.

Alternative 1A does less than the Delta Plan to restore the Delta ecosystem, ensure connections between restored areas, existing habitat, and other key elements of the Delta landscape. It also recommends that the State Water Resources Control Board adopt non-binding flow and water quality criteria for the Delta, as opposed to the Delta Plan's recommendation for the adoption of mandatory flow objectives. This limits Alternative 1A's ability to provide the more natural flows

that would improve ecosystem conditions. Alternative 1A also does not specify actions needed to protect agricultural lands, historic Legacy Communities, and other unique Delta resources at the same level of detail as provided in the Delta Plan. Thus, Alternative 1A does less than the Delta Plan to meet the project objective and coequal goal of protecting, restoring, and enhancing the Delta ecosystem in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place.

Alternative 1A would result in less overall levee maintenance and modification, because it would prioritize levees that protect water supply corridors. This approach could result in lower levels of flood risk reduction in parts of the Delta outside of protect water supply corridors. This alternative also would result in less reversal of subsidence and/or raising of subsiding lands and greater impacts on flood risk. Accordingly, Alternative 1A does less than the Delta Plan to meet the project objective of reducing risks to people and property through investments in flood protection.

Overall Alternative 1A would do less than the Delta Plan to arrest or reverse the ongoing decline in Delta environmental conditions. Ultimately, Alternative 1A would do less than the Delta Plan to further achievement of the coequal goals and eight inherent objectives.

For the foregoing reasons, Alternative 1A is hereby rejected.

C. Alternative 1B: Export More Water Out of the Delta; Reduced Conservation and Water Efficiency Measures; Only Voluntary Actions by State and Local Agencies; Coordination, not Regulation; Large Number of Additional Studies Before Action

Informed by a proposal from the Agriculture/Urban Coalition, Alternative 1B has similar emphases to Alternative 1A. It changes all of the Delta Plan's regulatory policies to non-binding recommendations. Alternative 1B would thus be less effective than the Delta Plan in furthering achievement of the coequal goals. Moreover, Alternative 1B's versions of the recommendations generally encourage studies and/or further recommendations, rather than actions or projects, unlike the Delta Plan, the Proposed Project Alternative, and Alternative 1A, thereby slowing achievement of project objectives.

Under Alternative 1B, agencies proposing covered actions would not have to improve regional self-reliance for water supplies, and suppliers that export water from, transfer water through, or use water in the Delta would not have to complete and implement urban or agricultural water management plans that include projects to reduce reliance on the Delta. Thus, Alternative 1B is less likely than the Delta Plan to encourage local and regional water supply projects and water efficiency and conservation measures, thus making it less likely to achieve the project objective and coequal goal of reducing reliance on the Delta to meet future statewide water supply needs.

Like Alternative 1A, Alternative 1B does less than the Delta Plan to ensure connections between restored areas, existing habitat, and other key elements of the Delta landscape. It would also

provide weaker encouragement to the State Water Resources Control Board to establish flow objectives for the Delta., thus limiting its ability to provide the more natural flows that would improve ecosystem conditions. Alternative 1B also does not specify actions needed to protect agricultural lands, historic Legacy Communities, and other unique Delta resources at the same level of detail as provided in the Delta Plan. Thus, Alternative 1B would do less than the Delta Plan to meet the project objective of enhancing the ecosystem of the Delta, as well as its natural resource, historic, and agricultural values.

Regarding flood risk reduction, Alternative 1B would be less effective than the Delta Plan with regard to constructing additional levees, postponing such projects until collaborative studies are completed. This could result in fewer new levees that would facilitate floodplain expansion; thus, Alternative 1B would result in greater impacts related to flood risk. Thus, Alternative 1B does less than the Delta Plan to meet the project objective of reducing risks to people and property through investments in flood protection.

Because its would not include mandatory policies, Alternative 1B would encourage fewer water treatment plants and groundwater wellhead treatment facilities; it would therefore do less than the Delta Plan to improve water quality.

Overall Alternative 1B would do less than the Delta Plan to arrest or reverse the ongoing decline in Delta environmental conditions. Ultimately, Alternative 1B would do less than the Delta Plan to further achievement of the coequal goals and eight inherent objectives.

For the foregoing reasons, Alternative 1B is hereby rejected.

D. Alternative 2: Decreased Export of Water from the Delta; Increased Emphasis on Ecosystem Restoration Throughout California

Informed by proposals from environmental organizations, Alternative 2 emphasizes ecosystem restoration and flood risk reduction by sharply decreasing water exports from the Delta, encouraging more local water supply projects, and removing more levees to expand floodplains, relative to the Delta Plan and other alternatives.

Alternative 2 would limit exports from the Delta and its watershed to a maximum of 3 million acre-feet each year, a much greater reduction than any reduction under the Delta Plan. This would be an across-the-board reduction that would alter the water supply available to many users, including municipal and especially agricultural users, potentially by amounts that would exceed the ability of local and regional supplies to replace. The construction of such local and regional supply projects, moreover, would cause greater construction impacts, such as water quality and visual impacts, than the Delta Plan because more of those projects (not including surface storage) – such as ocean desalination plants, wastewater or stormwater recycling facilities, and groundwater projects – would be required to make up for the reduced Delta exports. Alternative 2 also contemplates fewer surface water storage projects, such as reservoirs, although it would include a large reservoir in the Tulare Lake basin. Due primarily to its reductions in exports from the Delta, Alternative 2 would not meet the project objective and

coequal goal of providing a more reliable water supply for California, particularly for agricultural users.

Alternative 2 would result in fewer discrete projects to restore floodplains, riparian habitat, and tidal marsh than the Project. Through levee removal it would provide more general floodplain expansion than the Delta Plan, but this would bring greater impacts related to vectors, such as mosquitoes. . It also provides for water quality objectives that would restore flows in the Delta closer to their natural state. Alternative 2 also does not specify actions needed to protect agricultural lands, historic Legacy Communities, and other unique Delta resources at the same level of detail as provided in the Delta Plan.

Alternative 2 would lead to more conversion of agricultural land to non-agricultural uses than the Revised Project because it would convert the bed of Tulare Lake, which is currently in agricultural production, to a reservoir, take farmland out of production in the San Luis Drainage Area, and potentially result in less water being available for agricultural uses in the San Joaquin Valley areas, which could in turn cause farmers to take land out of production. The conversion is a significant environmental impact in its own right and could also lead to significant adverse impacts to special-status species reliant on agricultural land. Fallowing of lands, as in the San Luis Drainage Area, could also cause emissions of particulates (dust) the consequent potentially significant air quality impacts.

Ultimately, Alternative 2 would do more than the Delta Plan toward the reversal of ecosystem decline within the Delta, but would do so at the cost of converting agricultural land and doing substantially less to further the achievement of the project objectives and coequal goals of statewide water supply reliability and protecting the agricultural lands and other unique resources of the Delta.

For the foregoing reasons, Alternative 2 is hereby rejected.

E. Alternative 3: Increased Emphasis on Protection and Enhancement of Delta Communities and Culture; Protection of Delta Agricultural Land and Less Ecosystem Restoration; Fewer Regulations for Delta Counties

Informed by letters and comments from farmers and other residents and water users in the Delta, Alternative 3 emphasizes the protection of Delta agriculture and other water-using activities by reducing water exports and focusing ecosystem restoration away from agricultural lands while focusing flood protection toward agricultural lands.

Alternative 3 changes Delta Plan Policy WR P1 to a recommendation for water suppliers serving the Delta, while maintaining it as a mandatory policy for suppliers that serve areas outside of the Delta. This would result in a reduction in availability of Delta water to users outside of the Delta that is similar to those in the Delta Plan. Within the Delta, it also would result in a reduction in local and regional water supply projects and water efficiency and conservation measures similar to those found throughout the project area under Alternative 1A, but only within the Delta. This, in turn, could result in water users in the Delta not reducing their reliance on water diverted from

the Delta, and could exacerbate water-supply impacts in areas that receive Delta water. Increased (as compared to the Revised Project) in-Delta water use of Delta water could reduce the availability of Delta water to users outside the Delta. Alternative 3 thus does not meet the project objectives of improving California's water supply reliability and reducing reliance on the Delta. Alternative 3 thus does not meet the project objectives of improving California's water supply reliability and reducing reliance on the Delta.

Alternative 3 also would deemphasize Delta ecosystem restoration on established agricultural lands, and focus expansion of the floodplain and ecosystem restoration on publicly-owned lands instead. Alternative 3 would involve fewer new levees and would not prevent encroachment into the floodplain along the Lower San Joaquin River. Thus, Alternative 3 would not further achievement of the project objectives and coequal goals of restoring the Delta ecosystem and reducing risks to people and property through investments in flood protection.

Overall Alternative 3 would do less than the Delta Plan to arrest or reverse the ongoing decline in Delta environmental conditions. Ultimately, Alternative 3 would do less than the Delta Plan to further achievement of the coequal goals and eight inherent objectives.

For the foregoing reasons, Alternative 3 is hereby rejected.

F. The No Project Alternative

CEQA requires consideration of a no project alternative. Consistent with the State CEQA Guidelines, the No Project Alternative assumes the continuation of existing plans and policies. For example, the No Project Alternative assumes that existing statutory provisions requiring agencies that receive Delta water to engage in conservation and efficiency planning would remain in place in the future. It also includes physical projects that are permitted and funded at this time, such as the Phase I expansion of Los Vaqueros Reservoir, new diversions for Freeport Regional Water Authority and Stockton, and initial construction of the Dutch Slough ecosystem restoration project.

The No Project Alternative would not meet the Project objectives. Exports of Delta water would be greater under the No Project Alternative than under the Delta Plan, thus decreasing water supply reliability. Because it would not encourage any of the projects that the Delta Plan determines are important to further achievement of the coequal goals and inherent objectives, such as ecosystem restoration projects and the development of local and regional water supplies, the No Project Alternative would not advance those goals and objectives. It is also legally infeasible, as the Delta Reform Act requires adoption of a Delta Plan.

In addition, under the No Project Alternative, conditions related to water supply reliability, water quality, ecosystem health, and flood risk would continue to degrade, particularly in the Delta.

For the foregoing reasons, the No-Project Alternative is hereby rejected.

G. Environmentally Superior Alternative

On the basis of the analyses in the EIR, the Council finds that, in the short term, the No Project Alternative is the environmentally superior alternative because it involves less construction than the Delta Plan or any other alternative. The No Project Alternative, however, would do nothing to address ongoing degradation of the Delta's water resources, biological resources, agricultural resources, and flood protection. Thus, overall, it is not the environmentally superior alternative.

The Council finds that the Delta Plan is the environmentally superior alternative because it has the greatest ability to arrest or reverse the ongoing decline in environmental conditions in the Delta. As described in the Delta Plan and the EIR, in the absence of the Delta Plan or under the alternatives described above, ongoing degradation of the Delta's biological resources, flood protection, water resources, and agricultural resources will continue, with results that are both contrary to the coequal goals and harmful to the environment. The Delta Plan is environmentally superior to the Proposed Project Alternative because it does more to encourage and define measures that will improve water supply reliability, including in areas upstream of the Delta, and because it would cause less conversion of Delta farmland to non-agricultural uses. In contrast to Alternatives 1A and 1B, as described above and in the EIR, the Delta Plan will reduce reliance on water diverted from and through the Delta and improve water supply reliability, while encouraging immediate investment in water quality and ecosystem restoration and the adoption of flow objectives to provide a more natural flow regime. As described above and in the EIR, Alternative 2 would have greater impacts than the Delta Plan related to water supply reliability, and conversion of agricultural land, including impacts, such as the air-quality impacts of particulates emitted from fallowed fields, that potentially follow from conversion. Finally, the Delta Plan is environmentally superior to Alternative 3 because, as described above and in the EIR, the Delta Plan does more to reduce reliance on Delta water, to improve Delta water quality, and to stem the current decline of ecosystems in the Delta and parts of the lower San Joaquin River.

XI. INCORPORATION BY REFERENCE

These findings incorporate the text of the Final Program Environmental Impact Report for the Delta Plan, the Final Delta Plan, and the Mitigation Monitoring and Reporting Program by reference and in their entirety. Without limitation, this incorporation is intended to elaborate on the scope and nature of mitigation measures, Project and cumulative impacts, the basis for determining the significance of impacts, the comparison of the alternatives to the Project, the determination of the environmentally superior alternative, and the reasons for approving the Project.

XII. RECORD OF PROCEEDINGS

Various documents and other materials related to the Delta Plan Project constitute the record of proceedings upon which the Council bases its findings and decisions contained herein. Those documents and materials are located in the offices of the custodian for the documents and materials, which is Angela D'Ambrosio, Special Assistant to the Executive Officer, Delta Stewardship Council, located at 980 Ninth Street, Suite 1500, Sacramento, California 95814 .

XIII. NO RECIRCULATION REQUIRED

As described in Section III, above, following circulation of the Draft PEIR for public review and comment for 90 days, the Council directed staff to revise the Fifth Staff Draft Delta Plan, and in November 2012 the Council issued the Final Staff Draft Delta Plan, which is the Revised Project. The Recirculated Draft PEIR, which analyzes the Revised Project, was issued for public review and comment for 45 days beginning on November 30, 2012 and ending on January 14, 2013.

State CEQA Guidelines Section 15088.5 requires a lead agency to recirculate an EIR for further review and comment when "significant new information" is added to the EIR after public notice is given of the availability of the Draft EIR but before certification. No significant new information was added to the Recirculated Draft PEIR or Draft PEIR as a result of the public comment process on the Recirculated Draft PEIR. The Final PEIR responds to comments, and clarifies, amplifies and makes insignificant modifications to the Recirculated Draft PEIR and the Draft PEIR. The Final PEIR does not identify any new significant effects on the environment or a substantial increase in the severity of an environmental impact. Therefore, recirculation of the EIR is not required.

For the reasons set forth in detail in Section 2 of the Final PEIR and incorporated herein by reference, the changes to the Project description do not constitute significant new information that alter any of the conclusions of the EIR.

Likewise, changes to the text of the EIR set forth in Section 5 of Volume 5 of the Final EIR clarify and amplify the existing analysis, and do not constitute significant new information that requires recirculation. The changes to the text of the EIR correct typographical errors; provide updated references to reflect the passage of time since the Draft PEIR and Recirculated Draft PEIR were prepared; provide more detailed background information; more clearly articulate certain impact statements in order to clarify and amplify the match between the impact and the mitigation included in the Draft PEIR and Recirculated Draft PEIR; correct inadvertent internal inconsistencies between the Executive Summary and accurate, controlling text in the Draft PEIR or Recirculated Draft PEIR; and incorporate the updates and improvements to the mitigation measures that were presented to the public prior to and discussed at the Council's March 28, 2013 meeting. These text changes generally were prompted by public comment on the Draft PEIR and Recirculated Draft PEIR. One change worthy of specific mention is the addition of the Bryant's Savannah Sparrow (Passerculus sandwichensis alandinns) to Table 4-2 of the Draft PEIR. Table 4-2 identifies special-status species known to occur within the Delta and Suisun Marsh. The Bryant's Savannah Sparrow is designated as a California Species of Special Concern, and was added to Table 4-2 in the FPEIR in response to a Draft PEIR comment letter from the Department of Fish and Wildlife (DFW), which requested that it be added to the Table. Bryant's Savannah Sparrow is a migratory bird. The Draft PEIR already identified potential impacts from projects encouraged by the Delta Plan to migratory birds that have a similar range and habitat as Bryant's Savannah Sparrow. The impacts that were discussed for migratory birds would also be applicable to this particular species. Mitigation that was identified for migratory birds also would be applicable this species, and the inclusion of this species would not require

any new or different mitigation. Moreover, the habitat range for the species is not exclusive to the project area. For these reasons, the inclusion of the Bryant's Savannah Sparrow in Table 4-2 does not constitute significant new information that requires recirculation of the PEIR.

XIV. STATEMENT OF OVERRIDING CONSIDERATIONS

As discussed above, the Council has found that some of the impacts of the Delta Plan remain significant following adoption and implementation of mitigation measures described in the EIR and incorporated into the Project. Section 15093(b) of the State CEQA Guidelines provides that when the decision of the public agency results in the occurrence of significant impacts that are not avoided or substantially lessened, the agency must state in writing the reasons to support its actions. Having balanced the benefits of the Project against its significant and unavoidable environmental impacts, the Council finds that the Project's benefits outweigh its unavoidable adverse environmental effects, and that the adverse environmental effects are therefore acceptable. The Council further finds that each of the Project benefits discussed below is a separate and independent basis for these findings. The reasons set forth below are based on the Final EIR and other information in the administrative record.

1. The Council is charged with developing a legally enforceable, long-term management plan for the Delta that furthers achievement of the coequal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place.

2. The Delta is currently in crisis, as it cannot satisfy all of the competing demands placed on it, including those related to water supply, habitat, agriculture, recreation, and flood protection. Key species are endangered or threatened, the amount of water that can be exported from the Delta is determined by legal orders protecting species in addition to variable precipitation and storage, and experts warn that the Delta poses one of the greatest flood risks in the West.

3. The 45,600 square mile Delta watershed provides all or a portion of surface water or groundwater supplies to 27 million California residents. Approximately 8 percent of the State's water supply is exported from the Delta.

4. The Delta and Suisun Marsh support more than 55 fish species and more than 750 plant and wildlife species. Of these, approximately 100 wildlife species, 140 plant species, and 13 taxonomic units of fish are considered special status species.

5. The Delta and Suisun Marsh are home to more than one-half million residents living in dozens of communities, including portions of 12 incorporated cities, and support more than 146,000 jobs.

6. Approximately 57 percent of the Delta and Suisun March (more than 480,000 acres of agricultural land) currently supports a highly productive agricultural industry that is valued at hundreds of millions of dollars annually.

7. The Delta and Suisun Marsh levees and lands support interstate and state highways and railroad tracks that support interstate and intrastate traffic, more than 500 miles of major electrical transmission lines, 60 substations, and more than 400 miles of major natural gas pipelines that provide energy throughout Northern California, as well as critical pipelines that carry transportation fuels to airports and other fuel depots throughout the San Francisco Bay Area and Sacramento.

8. The Delta and Suisun Marsh have more than 1,335 miles of levees that protect more than 800,000 acres of land and play a role in the water supplies conveyed through the Delta.

9. The Delta experiences more than 12 million visitor days annually from recreational boaters; fishing, hunting, bird watching and camping draw even more visitors to the area.

10. The Delta Plan will advance California's interest in furthering achievement of the coequal goals and their inherent objectives of promoting statewide water conservation and water use efficiency, improving water quality, improving water conveyance, expanding statewide water storage, and reducing risks to people, property, and state interests by effective emergency preparedness, appropriate land uses, and investments in flood protection.

11. Tradeoffs and integration define the Delta dilemma: water conveyance facilities that built strong urban and agricultural economies threaten ecosystem health. Water that is beneficial for fish is alive with plankton and organic material, but sources of drinking water are best in as pure a form as possible. The pollutants of upstream urban and agricultural uses cause problems for downstream fish and water diverters alike. The same oceangoing ships that opened the Central Valley to world trade also introduced nonnative species that alter the Delta ecosystem. High water flows that historically improved habitat and a diverse food web come with the threat of lost homes, flooded farmland, and disaster for Delta residents and the California economy. Adding to the complexity of these problems is the increasing volatility of Delta water supplies. Without the solutions encouraged by the Delta Plan, these problems will not simply continue to exist at their current level, but will get worse over time. In light of these escalating environmental problems, the EIR determines that the failure to arrest such decline is itself a potentially significant environmental impact.

12. The projects and actions needed to further achievement of the coequal goals and inherent objectives will create significant environmental impacts in the short term related to project construction in order to mitigate future, more severe environmental impacts and to achieve long-term improvements to the environment, including more efficient use of water and increased water supplies, adaptive management of water supplies that balances a healthy ecosystem and multiple beneficial uses, improved water quality, improved wildlife habitats and

land for agriculture and recreation, and improved protection from flooding risk in order to preserve existing land uses and agriculture.

13. The Delta Plan builds on years of planning efforts and incorporates actions, recommendations, and strategies developed by both governmental and nongovernmental entities that have invested countless hours on Delta issues and have specialized expertise.

14. The Delta Plan lays the groundwork for near-term actions for improvement and focuses on the immediate avoidance of further harm or increased risk to the Delta by highlighting urgently needed habitat projects and the significant potential for local and regional water supply development. The Delta Plan seeks to immediately halt practices known to be detrimental to the sustainability of the Delta's many functions and services.

15. The Delta Plan will improve water supply reliability by encouraging users that rely on water from the Delta watershed to invest in improved regional supplies, conservation, storage, and water use efficiency in order to decrease their reliance on diversions from the Delta. This will result in a statewide water supply that is less vulnerable to drought and other natural disasters, more resilient in the event of earthquakes and sea level rise, and less subject to regulatory uncertainty. The economies of major regions of the state rely upon the ability to use water within the Delta watershed and water diverted from the Delta and its watershed. Thus, improved predictability of deliveries is essential to the state's economic interest. Many of these water users also will benefit from improvements to the quality of water diverted from the Delta.

16. The Delta Plan will protect, restore and enhance the Delta ecosystem by encouraging a more natural flow regime through the Delta; promoting the restoration of important, interconnected habitat for birds and terrestrial wildlife; and reducing impacts from stressors such as invasive species and poor water quality. These improvements will benefit not only species and habitats, but also coastal and inland commercial and recreational fisheries, recreation and tourism in the Delta, and the California public as a whole.

17. The Delta Plan will protect and enhance the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place by conserving farming and rural land use through appropriate planning for urban land uses, protecting the unique character of historic Delta communities, and allowing for development that supports agricultural and recreation-related economic activities. It seeks to minimize conflicts with and between existing or planned land uses in the Delta and water management, ecosystem restoration, or flood management infrastructure. The Delta thus will retain its rural heritage and status as a place where agricultural, recreational, and environmental uses are uniquely integrated, and it will continue its important role in the regional economy.

18. The Delta Plan will reduce risks to people, property, and state interests in the Delta by encouraging effective emergency preparedness, appropriate land uses, and investments in flood protection. Specifically, the Delta Plan provides interim funding priorities to guide discretionary State investments in Delta flood risk management prior to completion and adoption of updated priorities as required by Water Code section 85306, extension of floodproofing at a

100-year level of flood protection plus additional freeboard for sea level rise to rural development in the Delta, and restriction of encroachments in floodways and designated floodplains. This would reduce risks of natural disaster within the Delta, thereby encouraging investment in local communities and business; protecting agricultural production and investment, allowing for diversification and expansion of value added activities such as crop distribution and processing facilities; and minimizing flood related losses and disaster response costs.

19. The Delta Reform Act requires that the Delta Plan be based on the best available science and requires the use of science-based, transparent, and formal adaptive management strategies for ongoing ecosystem restoration and water management decisions. The Delta Plan recommends adoption of a Delta Science Plan by a date-certain that will balance investments in short-term science needs with those that build understanding over the long run and will provide strategies for addressing uncertainty and conflicting scientific information.

20. As authorized by the Delta Reform Act, pursuant to the Delta Plan the Council will coordinate and collaborate across the multiple public agencies that have responsibility for some aspect of the Delta. The Delta Plan establishes an open and accountable governance mechanism for coordinating actions across agency jurisdictions and statutory objectives in order to halt the decline of the Delta ecosystem and improve water supply reliability.

21. When compared to the alternatives analyzed in the Final EIR (including the No Project Alternative), the Delta Plan provides the best available balance between maximizing attainment of the project objectives and minimizing significant environmental impacts.

XV. SUMMARY

1. Based on the foregoing Findings and the information contained in the record, the Council has made one or more of the following Findings with respect to each of the significant environmental effects of the Delta Plan:

a. Changes or alterations have been required in, or incorporated into, the Delta Plan that avoid or substantially lessen the significant environmental effects identified in the Final EIR.

b. Those changes or alterations are wholly or partially within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other public agency.

c. Specific economic, legal, social, technological, or other considerations, make infeasible the mitigation measures or alternatives identified in the Final EIR that would otherwise avoid or substantially lessen the identified significant environmental effects of the Project.

2. Based on the foregoing Findings and the information contained in the record, the Council determines that:

a. All significant effects on the environment due to the approval of the Delta Plan have been eliminated or substantially lessened where feasible.

b. Any remaining significant effects on the environment found to be unavoidable are acceptable due to the factors described in the Statement of Overriding Considerations in Section XIV, above.

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