

**Todd Smith, Planning Director**  
Planning and Environmental  
Review

**Ann Edwards**  
Executive Director



**County of Sacramento**

*Memorandum*

September 21, 2022

To: Todd Smith  
Planning Director

From: Joelle Inman  
Environmental Coordinator

Subject: PLER2019-00135. Stone Lakes Restoration Project. Environmental Document:  
Mitigated Negative Declaration.

Planning and Environmental Review (PER), pursuant to the regulations of the California Environmental Quality Act (CEQA), prepared an Initial Study/Mitigated Negative Declaration (IS/MND) for the Stone Lakes Restoration Project (Control Number: PLER2019-00135). The IS/MND was released on April 5, 2022 and the public comment period closed May 5, 2022. One comment letter (Letter) from the Delta Stewardship Council was received May 5, 2022 (Attachment A).

The Stone Lakes Restoration Project analysis focuses on the potential environmental effects of restoration work within the Stone Lakes National Wildlife Refuge (NWR). The County of Sacramento is serving as the California Environmental Quality Act (CEQA) Lead Agency for a proposed grading permit for the project. The United States Fish and Wildlife Service (USFWS) is serving as the National Environmental Policy Act (NEPA) Lead Agency for proposed improvements within the NWR. The project applicant, working with USFWS, is Ducks Unlimited (DU).

The project would restore and enhance freshwater emergent seasonal wetlands and valley foothill riparian communities for wildlife benefits and diversity in a 453-acre area. Ultimately, the project would restore approximately 260 acres of seasonal wetland, restore approximately 40 acres of riparian wetland, and enhance approximately 20 acres of existing low-quality wetland. These wetlands would be managed to provide optimum conditions for wetland-dependent species such as waterfowl, neo-tropical migratory birds, and shorebirds, including greater sandhill cranes (*Grus*

*canadensis*), as well as giant garter snake (*Thamnophis gigas*). The restored areas would provide other critical ecosystem functions of wetlands as well, such as hydrologic and water quality services.

#### Delta Stewardship Council Memorandum

On May 5, 2022, the Delta Stewardship Council (the Council) provided a letter in response to the Stone Lakes Restoration Project IS/MND. The Council is charged with furthering California's coequal goals for the Delta through the adoption and implementation of the Delta Plan (Wat. Code, § 85300). As identified through the IS/MND, the Stone Lakes Restoration Project meets the definition of a covered action in the Delta Plan, pursuant to Section 21065 of the Public Resources Code. The Council's letter concurred with this finding. Once a local agency has determined that their project is a covered action under the Delta Plan, the agency is required to submit a written certification to the Council, with detailed findings, demonstrating that the covered action is consistent with the Delta Plan (Water Code §85225 et seq.). The purpose of the Council's letter is "to assist Sacramento County to prepare a Certification of Consistency for the project" (pg. 2).

The project applicant, DU, has been coordinating with USFWS to prepare project plans, NEPA documentation, and technical studies in support of the project. Since 2020, DU has coordinated with the Delta Stewardship Council to prepare a Certification of Consistency for the project (Attachment B). A Certification of Consistency includes all applicable feasible mitigation measures adopted and incorporated into the Delta Plan as mandated April 26, 2018, or substitute mitigation measures that the agency finds are equally or more effective. Measures will use the best available science and promote adaptive management. In their letter, the Council requested that the following policies of the Delta Plan be addressed in the Consistency analysis being prepared:

- Ecosystem Restoration Policy 2: Restore Habitats at Appropriate Elevations Delta Plan Policy ER P2 (Cal. Code Regs., tit. 23, § 5006)
- Ecosystem Restoration Policy 3: Protect Opportunities to Restore Habitat Delta Plan Policy ER P3 (Cal. Code Regs., tit. 23, § 5007)
- Ecosystem Restoration Policy 5: Avoid Introductions of and Habitat Improvements for Invasive Nonnative Species
- Delta as Place Policy 2: Respect Local Land Use when Siting Water or Flood Facilities or Restoring Habitats

#### Determination of Consistency with the Delta Plan

In response to the Delta Stewardship Council's letter, Sacramento County as lead agency for the project has prepared necessary documentation to support a determination of consistency (Attachment C). As required by the Delta Plan and the Delta Stewardship Council, this documentation consists of a review of applicable Delta Plan policies and a detailed analysis of mitigation measures included in the IS/MND compared to Delta Plan mitigation (presented in a crosswalk table). Upon review and preparation of detailed findings, Sacramento County has deemed the project **Consistent** with the Delta Plan.

#### Environmental Document Determination

Staff has determined that the mitigation measures in the IS/MND are based on current, best management practices, and has concluded that the project, with mitigation measures, is consistent with the Delta Plan. Therefore, the comment letter from the Delta Stewardship Council does not present a new or substantially significant impact not already analyzed in the IS/MND. It is the Environmental Coordinator's determination, that the IS/MND remains adequate and complete for the proposed project.

The Stone Lakes Restoration Project (Control Number: PLER2019-00135) Initial Study/ Mitigated Negative Declaration is available online at:  
<https://planningdocuments.sacounty.net/projectdetails.aspx?projectID=6685&communityID=PLER2019-00135>

The document is also available in person at the following location:

Sacramento County  
Office of Planning and Environmental Review  
827 7<sup>th</sup> Street, Room 225  
Sacramento, CA 95814

Monday – Friday during normal business hours  
(916) 874-6141

Attachments

- A Delta Stewardship Letter (May 5, 2022)
- B Delta Plan Mitigation Measure Consistency for the Stone Lakes Wildlife Refuge Restoration Project
- C Consistency Determination and Detailed Findings

CC

Delta Stewardship Council (sent via email)  
Ducks Unlimited (sent via email)



**STONE LAKES RESTORATION PROJECT  
DELTA CONSISTENCY DETERMINATION  
DETAILED FINDINGS**

Prepared for:

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- 2 Site Plan
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- 5 Sacramento County Williams Act Lands 2009
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### Appendices

Appendix A Delta Plan Mitigation Measures and Project Consistency

## LIST OF ACRONYMS AND ABBREVIATIONS

BMP	Best Management Practice
CCP	Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan
CEQA	California Environmental Quality Act
DISB	Delta Independent Science Board
DU	Ducks Unlimited
DWR	Department of Water Resources
GGs	giant garter snake
GPS	Global Positioning System
ISMND	Initial Study, Mitigated Negative Declaration
MMRP	Mitigation and Monitoring Reporting Program
msl	mean sea level
NAVD88	North American Vertical Datum 1988
Project	Stone Lakes Restoration Project – Serra Property
SLNWR	Stone Lakes National Wildlife Refuge
Serra Property AMP	Stone Lakes Restoration Project Adaptive Management Plan Serra Property
SYMVCD	Sacramento Yolo Mosquito and Vector Control District
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

## 1 INTRODUCTION

The Stone Lakes Restoration Project (Project) will restore and enhance freshwater emergent seasonal wetlands, valley foothill riparian, and oak woodland, and enhance agricultural land for wildlife benefits on the 465-acre sites. The Project goal is to maximize faunal diversity (predominantly birds) through a diversity of constructed wetland types, plant associations and support food web development. Ultimately the outcome of the Project will be the restoration of approximately 260-acres of seasonal wetland, restoration of approximately 40-acres of riparian seasonal wetland and enhancement of approximately 20-acres of existing low-quality wetland. These restored and enhanced wetlands will be managed to provide optimum conditions for wetland dependent species such as waterfowl, neo-tropical migratory birds, shorebirds and other water birds such as greater sandhill cranes, and to some extent giant garter snake (GGS). As well as provide other critical functions of wetlands such as hydrologic and water quality functions and services.

The Project is located within the Stone Lakes National Wildlife Refuge (NWR) and consists of parcels 1320120099, 1320120100, 1320210048, 1320210006. Although located within the Stone Lakes NWR boundary, the central 45-acre private seasonal wetland enhancement and restoration project area is owned by the Serra Revocable Trust (Serra property). Other Project enhancement and restoration areas are owned by the United States Fish and Wildlife Service (USFWS). The Sun River Unit and Headquarters Unit are within SLNWR and will be referred to as SLNWR throughout this document. The Serra Property is a private parcel and will be referred to as the Serra Property throughout this document. The Project is bordered by Railroad Cut to the west, Hood Franklin Road to the north, Interstate 5 to the east, and Lambert Road to the South. Land adjacent to the project area consists of Stone Lake, riparian and wetland habitat in the Stone Lakes NWR and privately-owned agricultural land consisting predominantly of row crops. The Project location is shown on Figure 1. The Project enhancement and restoration areas are shown on Figure 2.

### 1.1 PURPOSE AND NEED

Nearly 95 percent of historic wetlands have been lost in California's central valley, thereby putting greater pressure on the remaining wetlands to provide much needed resources for wetland dependent species. While certain types of agricultural activities can offset some of the wetland losses related to species life cycle needs, seasonal wetlands play a critical role in supporting ecosystem and life processes for many wetland dependent species. The restoration and creation of new wetland habitat is vital to the long-term success of several listed and endangered species as well as non-listed wetland dependent species.

### 1.2 PROJECT BACKGROUND

The Project focuses on the restoration of palustrine emergent wetlands, complemented with seasonal riparian forest wetland to add diversity and habitat complexity. Restoration of wetlands will be accomplished by constructing containment berms, contouring shallow swales, loafing and foraging islands, and installing new infrastructure such as water control structures (weir boxes and overflow valves). The Project will construct berms to manage water surface elevations in



each managed wetland unit. In addition, habitat features such as habitat loafing islands will give wildlife nesting and resting opportunity. Restoration of the seasonal riparian area will be accomplished by grading existing agricultural land, modifying existing water infrastructure and planting native trees and shrubs.

## 2 RESTORATION GOALS AND OBJECTIVES

The Project goals are to maximize faunal diversity (predominantly birds) through a variety of wetland types, plant associations, and support food web development. The Project objectives are to:

- Provide infrastructure and site conditions to promote shallow flooded wetland habitat suitable for shorebirds, waterfowl and sandhill cranes;
- Start the early successional processes for seasonal riparian habitat by grading agricultural fields and planting native trees and shrubs; and,
- Improve water conveyance and management to improve wetland habitat conditions through vegetation diversity and reduction of undesirable invasive species.

## 3 COVERED ACTION SUMMARY

The Stone Lakes Restoration Project is considered a covered action under the Delta Plan. A state or local agency that proposes to undertake a covered action must submit a Certification of Consistency with the Delta Plan to the Delta Stewardship Council, with detailed findings demonstrating that the covered action is consistent with the Delta Plan (Water Code Section 85225). The proposed project will be carried out on both private and federal property. However, the planning and permitting for the project is funded by the Delta Conservancy through Proposition 1 grant. Therefore, it is the projects understanding that a consistency determination is required.

A Certification of Consistency has been submitted electronically for this Project, via the Delta Stewardship Council's website on-line form. The purpose of this document is to provide detailed findings in support of this Certification of Consistency, specifically to provide additional details and explanation regarding the consistency of the Stone Lakes Restoration Project with the following regulatory policies:

- GP 1 / 23 CCR Section 5002
- ER P2 / 23 CCR Section 5006
- ER P5 / 23 CCR Section 5009
- DP P2 / 23 CCR Section 5011

- RR P1 / 23 CCR Section 5012 (Not applicable)
- RR P4 / 23 CCR Section 5015 (Not applicable)

### 3.1 CEQA COMPLIANCE

The project in partnership with Sacramento County acting as the Lead Agency has prepared an Initial Study / Mitigated Negative Declaration (IS/MND) (State Clearinghouse # 2022040090) for the Project that describes, analyzes, and discusses all the proposed Project's potential environmental impacts. The CEQA document has been prepared for both federal and private landowners as the project is state grant funded.

### 3.2 REGIONAL SETTING

The approximately 453-acre Project Site is located approximately 16 miles south of the City of Sacramento and 6 miles southwest of Elk Grove, and west of Interstate 5. The Project Site is in Sections 13, 23, 24, 25, & 36 of T6N, R4E on the Courtland, CA and Bruceville, CA USGS 7.5-minute topographic quadrangles. The latitude and longitude of the approximate center of the site are 38.34343° North and -122.498973° West. Surrounding land use is dominated by various agricultural operations and other lands managed for habitat benefits by the USFWS.

The Project Area is located near the eastern edge of Sacramento San Joaquin Delta. It is composed of three individual sites; the Sun River Unit, the Headquarters Unit, and the Serra Property. Besides active management of water within the Project Area, precipitation seasonally inundates the area. All wetlands and waters located throughout the study area are inundated when precipitation events occur resulting in standing water in the low spots.

The Project Area is in the Lower Sacramento watershed (HUC 18020109). Water from the site eventually is drained or pumped back into the South Stone Lake or the connecting ditch network.

#### SLNWR

The Sun River Unit is surrounded by levees separating the unit from South Stone Lake. Two weirs are currently built into the levee system and are designed to direct water, associated with large flood events from South Stone Lake, into the Project Area. One of the weirs is in the southwest corner of the Unit and the other is located along the western edge of the north-south running canal along the eastern edge of the Sun River Unit.

The agricultural fields and managed seasonal wetlands within the Sun River Unit are irrigated with water pumped from the large east-west running canal located along the southern edge of the property. The pump is in the southeast corner of the property and pumps water via pipe to a series of alfalfa valves located in the pastures in the southern section of the Sun River Unit. The fields are contoured to drain to the drainage ditch to the west before flowing back to

the east-west running canal in the south. The managed wetland units in the northern part of the Sun River Unit are also irrigated with water pumped from the canal and drain through water control structures that convey water back to South Stone Lake.

The Headquarters Unit is surrounded by levees separating the unit from South Stone Lake along the southeastern edge. The wheat field in the north is irrigated by alfalfa vales located along the northeastern boundary of the field. The field is contoured to drain water to the north-south running ditch along the western edge. The alfalfa field along the southern edge of the Unit is irrigated by water pumped from the east-west running ditch to the east. The field is contoured to drain to the east-west running ditch to the north before draining back to South Stone Lake. The managed seasonal wetland located in the southeastern portion of the Unit is irrigated by drainage from the cropland to the north and by seasonal precipitation before draining back to South Stone Lake.

### **Serra Property**

The Serra Property maintains a berm to the south and west separating the unit from South Stone Lake. The property management rotates between flood irrigated pasture and managed seasonal wetlands. A pump is located near the northwest corner of the property that pumps irrigation water into a pipe that utilizes alfalfa valves along the northern edge of the Serra Property. Water concentrates to the southern central part of the property and drains via a water control structure in the southern berm.

## **3.3 TOPOGRAPHIC SETTING**

The available site topography is high-accuracy LiDAR from the 2007 California Department of Water Resources (DWR) San Joaquin Delta Topographic LiDAR project. The LiDAR data was collected between January and February 2010. The Project was field surveyed by DU using Global Positioning System (GPS) equipment. The field survey recorded elevation in the North American Vertical Datum 1988 (NAVD88).

All of the Project Site is located within Intertidal and Sea Level Accommodation habitat as depicted on Figure 3, which is Figure 4-6 Habitat Types Based on Elevation, Shown with Developed Areas in the Delta and Suisun Marsh, of the Delta Plan 2013.

### **SLNWR**

The Sun River Unit consists of several agricultural field and managed seasonal wetland units located adjacent to South Stone Lake to the west. The wetland units are surrounded by berms and roads that range in elevation from 7 feet to 14 feet. The agricultural field generally slope from east to west. The high spots of the fields start at 8 feet and slope to 4 feet. Managed seasonal wetland units slope from generally from east to west. The high spots of the units start at 7 feet and slope to 3 feet. Wetlands occur at approximately 6 feet in elevation.

The Headquarters Units consists of several agricultural fields and a managed seasonal wetland, adjacent to South Stone Lake to the southeast. The agricultural fields slope from approximately 14 feet along the northern and southern margins of the fields to drainage ditch approximately 3 feet in elevation. The managed seasonal wetland in the southeastern portion of the Headquarters

Units slopes form approximately 12 feet to 3 feet, west to east. Wetlands occur at approximately 7 feet in elevation.

### Serra Property

The Serra Property consists of a managed seasonal wetland unit surrounded by a berm, adjacent to South Stone Lake to the west. The top of the berm ranges in elevation from 7 to 9 feet in elevation. The interior of the unit slopes from north to south-central ranging in elevation from 6 feet in the high spots to 3 feet in the low spot. Wetlands occur at approximately 6 feet in elevation.

## 4 PROJECT DESCRIPTION

The Project would restore and enhance freshwater emergent seasonal wetlands and valley foothill riparian communities for wildlife benefits and diversity in a 453-acre area. Ultimately, the Project would restore approximately 260 acres of seasonal wetland, restore approximately 40 acres of riparian wetland, and enhance approximately 20 acres of existing low-quality wetland. These wetlands would be managed to provide optimum conditions for wetland-dependent species such as waterfowl, neo-tropical migratory birds, and shorebirds, including greater sandhill cranes (*Grus canadensis*), as well as giant garter snake (*Thamnophis giga*). The restored areas would provide other critical ecosystem functions of wetlands as well, such as hydrologic and water quality services.

The Project focuses on the restoration of palustrine emergent wetlands, complemented with riparian forest wetland to add diversity and habitat complexity. Restoration of wetlands would be accomplished by constructing (or improving existing) containment berms, contouring shallow swales, creating loafing and foraging islands for various bird species, and installing new infrastructure such as water control structures (weir boxes and overflow valves). The addition of habitat features such as loafing islands would provide wildlife nesting and resting opportunities.

Restoration of the riparian area would be accomplished by grading existing agricultural land and modifying existing water infrastructure. Native trees and shrubs would be transplanted on-site, from their current locations to the restored riparian areas, in order to encourage natural succession.

Operationally, the Project would require managing water surface elevations in each wetland unit in order to maintain habitat and wildlife diversity. This is due to the context of the Project site's location within the Sacramento-San Joaquin Delta, an area of significant natural seasonal flooding that has become highly managed over the years. Nearly 95 percent of historic wetlands have been lost in California's central valley, thereby putting greater pressure on the remaining wetlands to provide much needed resources for wetland-dependent species. While certain types of agricultural activities can offset some of the wetland losses related to species life cycle needs, seasonal wetlands play a critical role in supporting ecosystem and life processes for many wetland-dependent species, including several listed and endangered species.

## 4.1 PROJECT PURPOSE

The Project goals are to maximize faunal diversity (predominantly birds) through restoration and enhancement of palustrine emergent wetlands and riparian habitats. The Project objectives are to:

- Provide infrastructure and site conditions to promote shallow flooded wetland habitat suitable for shorebirds, waterfowl and sandhill cranes;
- Facilitate early successional processes for riparian habitat by grading agricultural fields and planting native trees and shrubs; and
- Improve water conveyance and management capacity to allow for better control of undesirable non-native plant species and establishment of diverse native wetland and riparian plant communities.

## 4.2 PROPOSED PROJECT

The following summarizes the design features proposed under the Project, as well as the specific restoration activities by unit. Design plans for each restoration and enhancement area are provided as Figure 2.

### RESTORATION DESIGN FEATURES

#### BERMS

The primary design goal of new and improved berm construction is to provide water containment and re-direction within the enhanced and restored managed wetland areas. Additionally, berms provide high refugia habitat and habitat transition zones for a diversity of bird species. Berms would be designed to provide a one-foot minimum freeboard from the managed water surface elevations to the tops of berms. The one-foot minimum prevents berms from being overtopped by wind-driven waves. Top elevations of berms would vary by unit (as dictated by designed water surface elevations) and would range from 6.5 to 14 feet above mean sea level. Berm side slopes would have a minimum slope of 3:1; however, a 5:1 side slope would be utilized where feasible to accommodate flood flows, reduce erosion potential, and to provide greater transitional habitat.

#### GRADING, SWALES, AND POTHOLE

Grading and the excavation of shallow swales would occur in most of the wetland units to facilitate water conveyance and management within the project area. Grading depths would vary by unit but would typically be to a ground surface elevation approximately 0.5 foot lower than the designed water surface elevation to support seasonal wetland conditions favorable to waterfowl and native wetland plant establishment. Systems of swales, or shallow channels with gently sloping sides, would be used to convey water through and between restoration areas. Small pothole-shaped depressions would also be located in some restoration areas to increase habitat complexity and to support native plant succession.

### **HABITAT FEATURES**

A 90-acre area in the southern portion of the Stone Lakes NWR (associated with Sun River Ponds 10 and 11) would be restored from its current agricultural grazing use to provide shorebird-specific habitat. The existing ground surface in this area gradually slopes east to west from an elevation of eight to five feet above mean sea level. The area would be divided into two restoration units, Ponds 10 and 11, and would be graded to produce a final ground surface in each unit that would vary by approximately one foot in elevation across the unit. This more subtle change in elevation would allow for shorebird species to utilize a greater surface area for foraging and loafing.

Two types of island habitats have been designed for the Project as well: shorebird-specific foraging islands and loafing habitat islands. Shorebird-specific foraging islands would be located in Sun River Ponds 10 and 11, where shorebirds are expected to be present. The shorebird foraging islands would be longer and narrower than traditional loafing islands to maximize shorebird foraging opportunities, which occur mostly along the water surface-ground surface boundary. These islands would provide a constant water surface-ground surface boundary, even as the water surface elevation in the units change throughout the year. By installing these islands in the deeper parts of the units, the upper portion of the islands would be exposed when the water surface is at its highest design elevation and the lower portion of the islands would provide a water surface-ground surface boundary when the water surface is at its lowest design elevation. Loafing habitat islands would be created in some of the restored wetland habitat areas to provide nesting and resting opportunities for other waterfowl and migratory birds. Loafing islands would be built to elevations above the maximum designed water surface elevations to provide habitat throughout the year. Loafing islands would be approximately 25 feet long and 15 feet wide, and designed with characteristics previously demonstrated to result in positive bird response. For example, loafing islands would be oriented with the convex side of the island facing the prevailing winds, to allow leeward protection on the opposite side of the island.

### **WATER CONTROL INFRASTRUCTURE**

New and replacement water control structures would be installed through berms in various locations within the project area to facilitate the controlled movement of water into and out of the individual units. Proposed water control structures would utilize flashboards to control and vary the designed water surface elevation in each unit as needed. In some instances, redundant water control structures would be utilized to increase water circulation and provide for contingency if a single structure becomes plugged or damaged. In general proposed water control structures would consist of a prefabricated concrete box structure or circular high-density polyethylene (HDPE) structure outfitted with flashboard risers. HDPE pipe would be used in conjunction with either structure.

### **SITE CLEARANCE AND INFRASTRUCTURE MAINTENANCE AND REMOVAL ACTIVITIES**

Prior to performing construction activities, existing vegetation in areas that would be disturbed would be cleared and grubbed. This material would be left on-site along the base of habitat islands and berms, or as designated on the engineering plans.

In the Headquarters units on the northern side of the Stone Lakes NWR, three existing overflow valves would be removed and replaced. All other irrigation and utility piping would be protected in place and/or exists outside the limit of disturbance. Two PG&E electrical transmission poles are located in Headquarter Unit 9, but Project designs call for a berm to be constructed southeast of these poles, maintaining full access and right-of-way.

The existing water control structure present on the Serra Property consists mainly of sandbags and would be removed and replaced with a new concrete water control structure with an HDPE discharge pipe. The existing trees on the west side of the property would be removed, but all other existing pumps, piping, and fencing would be protected in place.

In the Sun River Unit, three water control structures would be replaced, two water control structures would be removed, and one overflow valve would be removed. Fencing along the east side of Ponds 7 and 8 and along the southern border of Pond 9 would be removed. Short lengths of HDPE connection piping would be removed at the northwest and southwest corners of Pond 9, as would the PVC piping that runs through the middle of Pond 9 and divides Ponds 10 and 11 into quadrants. A short piece of concrete connection piping would be removed from the west side of Pond 11. The trees and fencing in the perimeter ditch on the west side of Pond 11 would be removed as well, but all other piping would remain in place.

### 4.3 SUMMARY OF WETLAND RESTORATION ACTIVITIES

#### **HEADQUARTERS UNITS**

In Headquarters Unit 9, a new berm would be constructed running in a northeast to southwesterly direction. The area to the south and east of the berm would all be graded. Four pothole wetlands would be created, along with nine loafing islands and a swale complex throughout. One water control structure would be added.

Headquarters Units 8A and 8B would be graded to become a swale complex, with a new berm on the north side of both units and between them, and improvement of the existing berm on the east side of Unit 8A. Three new water control structures would be installed.

Headquarters Unit 7B contains existing wetlands on the east side, which would not be changed or disturbed. The goal for this unit is to modify the ground surface elevation so that the higher west side of the unit becomes an expansion of the existing wetland areas. Two new loafing islands would be created, two existing islands would be protected, and two existing islands would be regraded to create improved habitat.

#### **SERRA PROPERTY**

The existing berm that runs along the west and south side of the Serra Property would be improved, and the access road that runs along the north side would be regraded. The unit would be graded to create six pothole wetlands and twelve loafing islands. One water control structure would be installed.



### **SUN RIVER UNITS**

The existing berms that run along the south and west side of Pond 8 and along the northwest, west, and south side of Pond 7 would be improved. The levee that runs along the north side of Pond 8 and along the east side of both units would be regraded. These units would be graded to create seven pothole wetlands, nine loafing islands, and a complex of swales. One new water control structure and two new overflow valves would be installed. One of these overflow valves would connect to new irrigation piping on the east side of Pond 7, which would be connected to existing irrigation piping that continues south through the Refuge.

The existing berm on the north and west side of Pond 9 would be improved, and the existing levee on the east side of the unit would be regraded. The unit would be graded to create three pothole wetlands, seven loafing islands, and a swale complex. One new overflow valve would be installed on the east side of the unit as well.

New berms would be constructed on the north, west, and south sides of Ponds 10 and 11, as well as running between them from north to south. The existing levee on the east side of Pond 10 would be regraded. Both these units would be graded to create six shorebird islands in total, as well as a swale complex. Three water control structures would be installed throughout the two ponds, along with one overflow valve on the east side of Pond 10.

Pond 1 does not require berm construction, and there are no existing berms or levees for improvement activities. The area would be graded to create two new pothole wetlands and a swale complex.

## **5 DELTA PLAN POLICIES**

The proposed Stone Lakes Restoration Project is consistent with the following Delta Plan Policies

- GP 1 / 23 CCR Section 5002
  - (b)(2) Mitigation Measures
  - (b)(3) Best Available Science
- ER P2 / 23 CCR Section 5006
- ER P5 / 23 CCR Section 5009
- DP P2 / 23 CCR Section 5011

The proposed Stone Lakes Restoration Project is exempt from the following Delta Plan Policies due to geographic location

- RR P1 / 23 CCR Section 5012



- RR P4 / 23 CCR Section 5015

## 5.1 GP 1 (23 CCR § 5002)

(a) This policy specifies what must be addressed in a certification of consistency filed by a State or local public agency with regard to a covered action. This policy only applies after a “proposed action” has been determined by a State or local public agency to be a covered action because it is covered by one or more of the regulatory policies contained in Article 3. Inconsistency with this policy may be the basis for an appeal.

(b) Certifications of consistency must include detailed findings that address each of the following requirements:

(1) Covered actions, in order to be consistent with the Delta Plan, must be consistent with this regulatory policy and with each of the regulatory policies contained in Article 3 implicated by the covered action. The Delta Stewardship Council acknowledges that in some cases, based upon the nature of the covered action, full consistency with all relevant regulatory policies may not be feasible. In those cases, the agency that files the certification of consistency may nevertheless determine that the covered action is consistent with the Delta Plan because, on whole, that action is consistent with the coequal goals. That determination must include a clear identification of areas where consistency with relevant regulatory policies is not feasible, an explanation of the reasons why it is not feasible, and an explanation of how the covered action nevertheless, on whole, is consistent with the coequal goals. That determination is subject to review by the Delta Stewardship Council on appeal;

(2) Covered actions not exempt from CEQA must include all applicable feasible mitigation measures adopted and incorporated into the Delta Plan as amended April 26, 2018, which is here by incorporated by reference, (unless the measure(s) are within the exclusive jurisdiction of an agency other than the agency that files the certification of consistency), or substitute mitigation measures that the agency that files the certification of consistency finds are equally or more effective;

(3) As relevant to the purpose and nature of the project, all covered actions must document use of best available science;

(4) Ecosystem restoration and water management covered actions must include adequate provisions, appropriate to the scope of the covered action, to assure continued implementation of adaptive management. This requirement shall be satisfied through both of the following:

(A) An adaptive management plan that describes the approach to be taken consistent with the adaptive management framework in Appendix 1B; and

(B) Documentation of access to adequate resources and delineated authority by the entity responsible for the implementation of the proposed adaptive management process.

(c) A conservation measure proposed to be implemented pursuant to a natural community conservation plan or a habitat conservation plan that was:

- (1) Developed by a local government in the Delta; and
- (2) Approved and permitted by the California Department of Fish and Wildlife prior to May 16, 2013 is deemed to be consistent with sections 5005 through 5009 of this Chapter if the certification of consistency filed with regard to the conservation measure includes a statement confirming the nature of the conservation measure from the California Department of Fish and Wildlife.

This section provides detailed findings of consistency with regulatory policy *GP 1 / 23 CCR Section 5002: (b)(2) Mitigation Measures*.

This section provides detailed findings of consistency with regulatory policy *GP 1 / 23 CCR Section 5002: (b)(3) Best Available Science*.

This section provides detailed findings of consistency with regulatory policy *GP 1 / 23 CCR Section 5002: (b)(4) (A) Adaptive Management*.

The IS/MND, Mitigation and Monitoring Reporting Program (MMRP), outlines all mitigation measures to be incorporated during the construction of the proposed project. All mitigation measures are prescribed to avoid or mitigate significant impacts as described by CEQA.

For the Delta Plan Certification of Consistency, a comprehensive table (Appendix A) was uploaded which demonstrates consistency with Delta Plan Mitigation Measures by cross-walking with the Stone Lakes IS/MND, MMRP and Project-specific environmental commitments.

BMPs and management programs described in the Stone Lakes Restoration Project Adaptive Management Plan Serra Property (Serra Property AMP) (DU, 2020) and Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan (CCP) (USFWS, 2007) would be incorporated once proposed project is completed. BMPs and management programs will direct operations and maintenance of the proposed project once built. This direction will act as ensure adverse impacts to the proposed project are avoided or minimized.

Both the Serra AMP and the CCP describe management of the prospective properties. The plans outline operations needed to achieve objectives including water management, vector control, and vegetation management.

Nearly 95 percent of historic wetlands have been lost in California's central valley, thereby putting greater pressure on the remaining wetlands to provide much needed resources for wetland dependent species. While certain types of agricultural activities can offset some of the wetland losses related to species life cycle needs, seasonal wetlands play a critical role in supporting ecosystem and life processes for many wetland dependent species. The restoration

and creation of new wetland habitat is vital to the long-term success of several listed and endangered species as well as non-listed wetland dependent species.

Throughout project planning and implementation, DU is committed to utilizing the best available science to design and construct the project. The property owner is committed to manage and monitor the site. Adaptive management of the Project will be based on the utilization of input from monitoring data in conjunction with adaptive review of whether restoration goals and objectives are being achieved.

Ongoing research related to waterfowl biology and habitat management continues to progress and provides greater insight on how to manage habitat. A list of current best available science is provided as Appendix B of the Adaptive Management Plan Serra Property, identified as Figure 3 of this document.

The Project design, Stone Lakes Restoration Project Adaptive Management Plan Serra Property, and Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan are based on best available science, as demonstrated by the following elements:

- Well-stated goals.
- Thorough analysis of potential impacts during the CEQA process.
- Best professional judgment of experts.

## Goals

The Goals (specific to SLNWR) stated in the CCP include the following:

- Conserve a diversity of fish, wildlife, and plants and their habitats, including species that are endangered or threatened with becoming endangered.
- Develop and maintain a network of habitats for migratory birds, anadromous and interjurisdictional fish, and marine mammal populations that is strategically distributed and carefully managed to meet important life history needs of these species across their ranges.
- Conserve those ecosystems, plant communities, wetlands of national or international significance, and landscapes and seascapes that are unique, rare, declining or underrepresented in existing protection efforts.
- Provide and enhance opportunities to participate in compatible wildlife dependent recreation (hunting, fishing, wildlife observation and photography, and environmental education and interpretation).
- Foster understanding and instill appreciation of the diversity and interconnectedness of fish, wildlife, and plants and their habitats (USFWS, 2007).

The Project goals (specific to the Serra Property) are to maximize faunal diversity (predominantly birds) through a variety of wetland types, plant associations, and support food web development. The Project objectives are to:

- Provide infrastructure and site conditions to promote shallow flooded wetland habitat suitable for shorebirds, waterfowl and sandhill cranes;

- Improve water conveyance and management to improve wetland habitat conditions through vegetation diversity and reduction of undesirable invasive species.

The water level will be managed to encourage the establishment and maintenance of annual, perennial, emergent, and submerged aquatic vegetation. Subsequently, these vegetation communities will provide habitat for a variety of wetland dependent wildlife. Water management provides the means to vary water levels within this unit to distribute nutrients, decrease stagnant conditions, provide quality habitat, and minimize vector production (DU, 2020).

### **CEQA**

The IS/MND analyzed environmental impacts associated with the proposed project activities. Topical areas discussed in the IS/MND include Land Use, Air Quality, Hydrology and Water Quality, Biological Resources, Cultural Resources, Tribal Cultural Resources, and Greenhouse Gas Emissions.

### **Best Professional Judgement**

When evaluating the appropriate management direction for refuges, Refuge Managers will use sound professional judgment to determine their refuge's contribution to biological integrity, diversity, and environmental health at multiple landscape scales. Sound professional judgment incorporates field experience, an understanding of the refuge's role within an ecosystem, and the knowledge of refuge resources, applicable laws and best available science, including consultation with resource experts both inside and outside of the Service (USFWS, 2007).

DU routinely makes staff available to property owners of completed projects to assist in habitat management and serve as a technical advisor. Additional potential technical advisor resources include staff of the Stone Lakes National Wildlife Refuge as well as the Cosumnes River Preserve. There are other nearby private duck clubs that often are willing to network, trouble shoot, and serve in a technical advisory capacity (DU, 2020).

## **5.2 ER P2 (23 CCR § 5006) RESTORE HABITATS AT APPROPRIATE ELEVATIONS**

- (a) Habitat restoration must be carried out consistent with Appendix 3, which is Section II of the Draft Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta Ecological Management Zone and the Sacramento and San Joaquin Valley Regions (California Department of Fish and Wildlife 2011). The elevation map attached as Appendix 4 should be used as a guide for determining appropriate habitat restoration actions based on an area's elevation. If a proposed habitat restoration action is not consistent with Appendix 4, the proposal shall provide rationale for the deviation based on best available science.
- (b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that includes habitat restoration.  
Note: Authority cited: Section 85210(i), Water Code. Reference: Sections 85020, 85022, 85054, 85300 and 85302, Water Code.

According to the Delta Plan Policy ER P2, the location of the restoration site is appropriate for the type of restoration proposed. The proposed project is the restoration and enhancement of managed seasonal wetland and riparian wetland. The project is located in an area that is identified as having Transitional Habitat, Seasonal Floodplain and Sea Level Rise Accommodation.

The site is subjected to floodplain inundation when Stone Lakes experience a moderate to large flood event. The wetland units will be able to function as seasonal wetlands draining back to South Stone Lake. The units will be inundated seasonally due to management regime and seasonal flood events. Although the project does not increase accessibility of water on and off the floodplain. This project is consistent with this policy according to Appendix 3 on Page 42 and 43, which states,

Floodplain areas have the potential to support highly productive habitats, as they represent a heterogeneous mosaic of habitats including riparian habitat, freshwater tidal marsh, seasonal wetlands, perennial aquatic, and perennial grassland habitats, in addition to agricultural lands. During inundation floodplains are used by numerous native fish for spawning and early growth (Moyle 2002). There has been extensive research on the Yolo Bypass and lower Cosumnes River, in addition to some research in the Sutter Bypass, indicating that native resident and migratory fish show a positive physiological response (i.e., enhanced growth and fitness) when they have access to floodplain habitats (Moyle et al. 2004, Ribeiro et al. 2004, Moyle et al. 2007), which likely benefits them as they complete subsequent stages of their respective life cycles.

The project, by restoring and enhancing seasonal wetland and riparian habitat on an existing floodplain support the primary production of food web resources that benefit native species.

Ahearn et al. (2006) found that floodplains that are wetted and dried in pulses can act as a productivity pump for the lower estuary. With this type of management, the floodplain exports large amounts of Chlorophyll *a* to the river. Floodplain habitat on the Cosumnes River Preserve has been shown to provide many benefits to native fish (Swenson et al. 2003, Ribeiro et al. 2004, Grosholz and Gallo 2006, Moyle et al. 2007).

The seasonal and riparian wetlands proposed are designed and will be implemented with the same features and manner to those studied at the Cosumnes River Preserve.

For additional project information see the Project Description in the IS/MND.

### 5.3 ER P5 (23 CCR § 5009) AVOID INTRODUCTIONS OF AND HABITAT IMPROVEMENTS FOR INVASIVE NONNATIVE SPECIES

- (a) The potential for new introductions of or improved habitat conditions for nonnative invasive species, striped bass, or bass must be fully considered and avoided or mitigated in a way that appropriately protects the ecosystem.*
- (b) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that has the reasonable probability of introducing or improving habitat conditions for nonnative invasive species.*

#### **Invasive plants:**

The proposed project includes design principles and construction measures to avoid introductions of habitat improvements for invasive nonnative species. The water level will be managed to encourage the establishment and maintenance of annual, perennial, emergent, and submerged aquatic vegetation. Subsequently, these vegetation communities will provide habitat for a variety of wetland dependent wildlife. Water management provides the means to vary water levels within this unit to distribute nutrients, decrease stagnant conditions, provide quality habitat, and minimize vector production. It is anticipated that water will begin to be brought onto the site in late fall to maintain an approximate water elevation 0.5-feet above the ground surface. This water level will be maintained through winter until the spring. Periodic flood up events may occur in spring through fall to facilitate growth of desired species or to eliminate invasive species.

The Current Management Practices Section of the Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan (January 2007), describes management practices designed to reduce the spread of invasive plants.

Mowing and discing of wetland units can the Refuge manage or specific species while removing invasive plants species. The Habitat Manipulations subsection on page 58 of the CCP includes the following description of mowing and discing of wetland units:

*Mowing, prescribed burning, discing and noxious weed control during late summer are all part of efforts to manage less desirable vegetation with limited food value for migratory waterbirds, such as cocklebur and spike rushes. These activities also improve conditions for grasses and forbs to grow, such as watergrass, swamp timothy, smartweeds as well as other desirable vegetation, such as bulrush, buttonbush and willow. Each unit is evaluated annually to determine the need for manipulations. Permanent wetland units are disced every three to five years to maintain an equal ratio of open water to vegetation. Seasonal wetlands are disced or mowed every other year, depending on vegetation response.*

The Refuge has a mosaic of habitat within its boundaries including open water habitat within Stone Lakes and the network of ditches and canals that connect wetland units to the lake. Invasive floating vegetation that can choke these open water habitats include water hyacinth, The Weed Control subsection on page 60 of the CCP includes the following management of floating invasive vegetation:



*Non-chemical methods to prevent the spread of water hyacinth include deploying log booms at strategic locations to prevent spread, screening culverts to prevent re-introduction and removing water hyacinth from small water bodies by hand.*

The Stone Lakes Adaptive Management Plan Serra Property (DU, 2020) also includes vegetation control as part of its management strategies on the Serra Property. The Vegetation control measures include seasonal mowing and discing of managed seasonal wetland units. Although the design and operations are planned to minimize the potential for non-native species establishment, non-native plant species will likely be present within the Project Site.

**Invasive wildlife:**

The proposed project is designed to function as a managed seasonal wetland. It is anticipated that seasonal inundation will occur due to water management, precipitation, and seasonal flood events when South Stone Lakes overtops into the proposed project sites.

Invasive fish species may be brought onto the proposed project sites during large flood events. However, the wetland habitat management regime prescribes spring draw down of water levels to maximize productivity of the wetland units. With greater water control by the proposed project, wetland managers will be able to promote more desired native plant species and better control non-native invasive species.

#### **5.4 DP P2 (23 CCR § 5011) RESPECT LOCAL LAND USE WHEN SITING WATER OR FLOOD FACILITIES OR RESTORING HABITATS**

- (a) Water management facilities, ecosystem restoration, and flood management infrastructure must be sited to avoid or reduce conflicts with existing uses or those uses described or depicted in city and county general plans for their jurisdictions or spheres of influence when feasible, considering comments from local agencies and the Delta Protection Commission. Plans for ecosystem restoration must consider sites on existing public lands, when feasible and consistent with a Project's purpose, before privately owned sites are purchased. Measures to mitigate conflicts with adjacent uses may include, but are not limited to, buffers to prevent adverse effects on adjacent farmland.*
- (b) For purposes of Water Code Section 85057.5(a)(3) and Section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions that involve the siting of water management facilities, ecosystem restoration, and flood management infrastructure.*

The proposed project has been coordinated with the Sacramento San Joaquin Delta Conservancy, the Delta Protection Commission, Sacramento County and the various required regulatory permitting agencies. The proposed project is located on an existing national wildlife refuge and private property that is surrounded by other parts of the national wildlife refuge as well as other private land- owners. The adjacent land uses are primarily agriculture.

Additional project details of the site can be found in the Mitigated Negative Declaration for the Stone Lakes Restoration Project, Section 1.3 Project Background and History, and Section 2 Agriculture Resources, and Section 10 Land Use and Planning. The Project would not conflict with the land classification of AG-80 open space/agriculture. There are no Williamson Act contracts on the Project site.

Additionally, there were no issues raised during the public CEQA review process.

## 5.5 RR P4 (23 CCR § 5012) FLOODPLAIN ENCROACHMENT

*(a) No encroachment shall be allowed or constructed in any of the following floodplains unless it can be demonstrated by appropriate analysis that the encroachment will not have a significant adverse impact on floodplain values and functions:*

*(1) The Yolo Bypass within the Delta;*

*(2) The Cosumnes River-Mokelumne River Confluence, as defined by the North Delta Flood Control and Ecosystem Restoration Project (McCormack-Williamson), or as modified in the future by the California Department of Water Resources or the U.S. Army Corps of Engineers (California Department of Water Resources 2010); and*

*(3) The Lower San Joaquin River Floodplain Bypass area, located on the Lower San Joaquin River upstream of Stockton immediately southwest of Paradise Cut on lands both upstream and downstream of the Interstate 5 crossing. This area is described in the Lower San Joaquin River Floodplain Bypass Proposal, submitted to the California Department of Water Resources by the partnership of the South Delta Water Agency, the River Islands Development Company, Reclamation District 2062, San Joaquin Resource Conservation District, American Rivers, the American Lands Conservancy, and the Natural Resources Defense Council, March 2011. This area may be modified in the future through the completion of this project.*

*(c) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers a proposed action that would encroach in any of the floodplain areas described in subsection (a).*

*(c) This policy is not intended to exempt any activities in any of the areas described in subsection (a) from applicable regulations and requirements of the Central Valley Flood Protection Board.*

Although the project is located within a floodplain, the project is not located within the Yolo Bypass, The Cosumnes River – Mokelumne River Confluence, or the Lower San Joaquin River Floodplain or any of the other priority habitat restoration areas depicted in Figure 4-6 above. Therefore, policy RR P4 does not apply to the proposed project.



## 5.6 ER P3 (23 CCR § 5007) PROTECT OPPORTUNITIES TO RESTORE HABITAT

(a) Within the priority habitat restoration areas depicted in Appendix 5, significant adverse impacts to the opportunity to restore habitat as described in section 5006, must be avoided or mitigated.

(b) Impacts referenced in subsection (a) will be deemed to be avoided or mitigated if the project is designed and implemented so that it will not preclude or otherwise interfere with the ability to restore habitat as described in section 5006.

(c) Impacts referenced in subsection (a) shall be mitigated to a point where the impacts have no significant effect on the opportunity to restore habitat as described in section 5006. Mitigation shall be determined, in consultation with the California Department of Fish and Wildlife, considering the size of the area impacted by the covered action and the type and value of habitat that could be restored on that area, taking into account existing and proposed restoration plans, landscape attributes, the elevation map shown in Appendix 4, and other relevant information about habitat restoration opportunities of the area.

(d) For purposes of Water Code section 85057.5(a)(3) and section 5001(j)(1)(E) of this Chapter, this policy covers proposed actions in the priority habitat restoration areas depicted in Appendix 5. It does not cover proposed actions outside those areas.

Although the project is located within a floodplain, the project is not located within the Yolo Bypass, The Cosumnes River – Mokelumne River Confluence, or the Lower San Joaquin River Floodplain or any of the other priority habitat restoration areas depicted in Figure 4-6. Therefore, policy ER P3 does not apply to the proposed project.

## REFERENCES CITED

- DISB, 2016. Improving Adaptive Management in the Sacramento-San Joaquin Delta, Delta Stewardship Council, Sacramento, CA.
- DU, 2019. Wetland Delineation for the Stone Lakes Wetland Restoration Project, Sacramento County, California, July 29.
- DU, 2020. Stone Lakes Restoration Project Adaptive Management Plan Serra Property.
- Kwasny et al., 2004. Central Valley Joint Venture, Technical Guide to Best Management Practices for Mosquito Control in Managed Wetlands, June.
- Smith et al., 1995. A Guide to Wetland Habitat Management in the Central Valley, California Department of Fish and Game and California Waterfowl Association.
- USFWS, 2007. Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan.
- WRA, 2019. Special-Status Plant Survey Report, Stone Lakes Wetland Restoration Project, Sacramento County, California, September.
- Zedler, 2005. Ecological Restoration: Guidance from Theory. San Francisco Estuary and Watershed Science, Volume 3, Issue 2, September.

Attachment C: Delta Plan Mitigation Measure Consistency for the Stone Lakes Wildlife Refuge Restoration Project

This table presents a “crosswalk” between Delta Plan Mitigation Measures and the project-specific Environmental Commitments and/or Mitigation Measures which demonstrate compliance with or effective substitution for, the Delta Plan Mitigation Measures. Included below are sections of the Stone Lakes Wildlife Refuge Restoration Project Initial Study / Mitigated Negative Declaration (IS/MND; State Clearinghouse # 2022040090; County Control # PLER2019-00135).

Supporting documents have been uploaded in support of this submittal of Certification of Consistency and are referenced in this document (Step 2.J. Supporting Documents). These include:

- Stone Lakes Wildlife Refuge Restoration Project Initial Study / Mitigated Negative Declaration (IS/MND; State Clearinghouse # 2022040090; County Control # PLER2019-00135)
- Mitigation Monitoring and Reporting Program
- Hydraulic Impact Analysis. MBK Engineers, October 2020.
- Stone Lakes Restoration Project Adaptive Management Plan Serra Property (Serra Property AMP) (DU, 2020)
- Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan (CCP) (USFWS, 2007)

Delta Plan Mitigation Number	Delta Plan Mitigation Measure Language	Project Consistency Determination
Aesthetics		
5.2-1	Use non-specular conductors for transmission lines and distribution lines to reduce glare.	<b>Not applicable.</b> Construction of the project does not include installation of transmission and/or distribution lines.
Water Resources		
3-1	<ul style="list-style-type: none"><li>• For construction of new facilities, all typical construction mitigation measures shall be required. Typical mitigation measures include the following construction-related Best Management Practices (BMPs):<ul style="list-style-type: none"><li>○ 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.</li><li>○ All concrete washing and spoils dumping shall occur in a designated location.</li><li>○ Construction stockpiles shall be covered in order to prevent blowoff or runoff during weather events.</li><li>○ Severe weather event erosion control materials and devices shall be stored onsite for use as needed.</li><li>○ Soil stabilization, sediment control, wind erosion control, tracking control, non-storm water management, and waste management/materials pollution control</li></ul></li><li>• Apply other BMPs as determined necessary by the regulating entity (city, county).</li><li>• 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.</li><li>• 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</li></ul> <p>For any construction activities with the potential to cause in-river sediment disturbance associated with construction:</p>	<p><b>Consistent.</b> The project will be required to comply with all local, state, and federal regulations pertaining to water quality. This includes compliance with the Central Valley Regional Water Quality Control Board’s NPDES requirements and preparation of a Storm Water Pollution Prevention Plan. The project will be required to obtain all applicable state and federal permits for work within jurisdictional waters. Additionally, an Erosion and Sediment Control Plan, detailing project-specific sediment control and stormwater quality BMPs is required prior to the commencement of construction. Finally, the County requires developers to utilize the Stormwater Quality Design Manual for Sacramento Region in the selecting and designing post-construction facilities to treat runoff from the project.</p> <p>Compliance with existing regulations is comparable to the Delta Plan Water Resources Mitigation.</p> <p>Item 3: <b>Not applicable.</b> The project does not include introduced impervious surfaces.</p>

Attachment C: Delta Plan Mitigation Measure Consistency for the Stone Lakes Wildlife Refuge Restoration Project

	<ul style="list-style-type: none"><li>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.</li><li>Apply bank stabilization BMPs, as needed, for any in-channel disturbance, such as:<ul style="list-style-type: none"><li>A 100-foot vegetative or engineered buffer shall be maintained between the construction zone and surface water body.</li><li>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.</li></ul></li></ul> <p>*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 in the channel.</p>	
3-2	<p>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 implemented:</p> <ul style="list-style-type: none"><li>Install sheet piles to reduce the area influenced by shallow groundwater level declines.</li><li>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.</li><li>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.</li></ul>	<p><b>Not applicable.</b> The project site is not located near any known wells and will not impact groundwater.</p>
Biological Resources		
4-1	<ol style="list-style-type: none"><li>Avoid, minimize, and compensate for reduction in area and/or habitat quality of sensitive natural communities, including wetlands, by doing the following:<ul style="list-style-type: none"><li>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.</li><li>Designing, to the maximum extent practicable, project elements to avoid effects on sensitive natural communities.</li><li>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</li><li>the United States and waters of the State that would be removed, lost, and/or degraded.</li><li>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</li><li>on-site, or off-site at a nearby site, or by purchasing in-kind restoration or preservation credits from a mitigation</li><li>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).</li></ul></li><li>Implement advanced mitigation planning for ecosystem restoration prior to construction.</li><li>Implement construction best management practices, including:<ul style="list-style-type: none"><li>Developing and implementing a Stormwater Pollution Prevention Plan (SWPPP).</li><li>Minimizing soil disturbance, erosion, and sediment runoff from project site.</li><li>Avoiding and minimizing contaminant spills.</li><li>Minimizing visual and noise disturbance from construction activities.</li><li>Conducting biological construction monitoring to ensure that implemented Best Management Practices (BMPs) are effective.</li></ul></li><li>Restore areas temporarily affected by construction activities, including:<ul style="list-style-type: none"><li>Preparing restoration plan for temporary impacts sites for review by resource agencies.</li><li>Minimizing soil disturbance and stockpiling topsoil for later use in any areas to be graded.</li></ul></li></ol>	<p><b>Items 1, 2, and 4: Not applicable.</b> The project consists of the restoration of 260 acres of seasonal wetlands, 40 acres of riparian wetland habit, and enhance approximately 20 acres of low-quality wetland habitat. Although sensitive natural communities will be temporarily impacted by construction, the project would result in net increases of riparian and wetland habitats.</p> <p><b>Item 3: Consistent.</b> See Section 3-1 determination above.</p> <p><b>Item 5: Not applicable.</b> Construction of the project does not include the conversion of oak woodlands.</p> <p><b>Item 6: Consistent.</b> The Stone Lakes NWR Comprehensive Conservation Plan (CCP) provides a 15-year management direction for the Refuge. Goals, objectives, and strategies for improving Refuge conditions are described in the CCP. One of the main objectives of the Refuge is to manage invasive species and improve habitat ; therefore, the project will be consistent with Delta Plan measures associated with management of invasive species.</p>

### Attachment C: Delta Plan Mitigation Measure Consistency for the Stone Lakes Wildlife Refuge Restoration Project

	<ul style="list-style-type: none"> <li>○ Decompacting or amending soil if necessary before planting and use native species for revegetation.</li> <li>○ Restoring natural communities with similar or improved function from communities that were affected.</li> </ul> <p>5. 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:</p> <ul style="list-style-type: none"> <li>○ Conserve oak woodlands, through the use of conservation easements.</li> <li>○ Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.</li> <li>○ Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of section 1363 of the Fish and Game Code.</li> </ul> <p>6. 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 (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:</p> <ul style="list-style-type: none"> <li>○ Nonnative species eradication methods (if eradication is feasible)</li> <li>○ Nonnative species management methods</li> <li>○ Early detection methods</li> <li>○ Notification requirements</li> <li>○ Best management practices for preconstruction, construction, and post construction periods</li> <li>○ Monitoring, remedial actions and reporting requirements</li> <li>○ 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</li> </ul>	
4-2	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. Schedule construction to avoid special-status species' breeding, spawning, or migration locations during the seasons or active periods that these activities occur.</li> <li>3. 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 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 DFW and USFWS or NMFS.</li> <li>4. 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 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.</li> <li>5. Conduct construction monitoring (by qualified biologist) to ensure effectiveness of avoidance and minimization measures and implement remedial measures if necessary.</li> <li>6. When appropriate, relocate special-status plant and animal species or their habitats from project sites following USFWS, NMFS, and DFW protocols (e.g., for special-status plant species or elderberry shrubs).</li> <li>7. 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).</li> </ol>	<b>Consistent.</b> Mitigation Measures B – I of the IS/MND cover several special status wildlife species and require pre-construction surveys, active site monitoring, and avoidance and minimization measures.
4-3	<ol style="list-style-type: none"> <li>1. Select project site(s) that would avoid a substantial reduction in fish and wildlife species habitat.</li> <li>2. To the maximum extent practicable, design project elements to avoid effects that would lead to a substantial loss of fish and wildlife habitat.</li> <li>3. Replace, restore, or enhance habitats for fish and wildlife species that would be lost.</li> <li>4. Where substantial loss of habitat for fish and wildlife species is unavoidable, compensate for impacts by preserving in-kind habitat</li> </ol>	<b>Consistent.</b> The project consists of the restoration of 260 acres of seasonal wetlands, 40 acres of riparian wetland habit, and enhance approximately 20 acres of low-quality wetland habitat. Although sensitive natural communities will be temporarily impacted by construction, the project would result in net increases of riparian and wetland habitats.
4-4	<ol style="list-style-type: none"> <li>1. Protect habitat for migratory waterfowl and shorebirds by expanding existing wildlife refuges and management areas, and establishing</li> </ol>	<b>Consistent.</b> The project consists of the restoration of 260 acres of seasonal

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	<p>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.</p> <p>2. 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.</p> <p>3. 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.</p> <p>4. 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.</p>	<p>wetlands, 40 acres of riparian wetland habit, and enhance approximately 20 acres of low-quality wetland habitat. Although sensitive natural communities will be temporarily impacted by construction, the project would result in net increases of riparian and wetland habitats.</p>
4-5	<p>1. 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.</p>	<p><b>Consistent.</b> The project does not involve the removal of trees and will comply with all County ordinances and policies for protection and conservation of biological resources.</p>
<b>Delta Flood Risk</b>		
5-1	<p>1. 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.</p> <p>2. 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.</p> <p>3. 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.</p> <p>4. 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.</p> <p>5. 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.</p> <p>6. Where low channel velocities might result from construction, implement a sediment management program in order to maintain channel capacity.</p> <p>7. 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.</p> <p>8. 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.</p> <p>9. 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.</p> <p>10. Provide a long-term sediment removal program at in-river structures.</p> <p>11. 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.</p>	<p><b>Consistent.</b> Construction of the project will not add any structures or facilities within the project area. Construction of the project will restore and enhance seasonal wetlands and riparian wetland habitat. A hydraulic study was performed by MBK Engineers (see project materials) and the technical study and IS/MND did not identify a significant impact related to flood risk, drainage, or hydrology. See Hydraulic Impact Analysis.</p>
5-2	<p>1. 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.</p> <p>2. Provide onsite stormwater detention storage at construction and project facility sites that would reduce project- caused, short- and long-</p>	<p><b>Consistent.</b> A hydraulic study was performed by MBK Engineers (see project materials) and the technical study and IS/MND did not identify a significant impact related to flood risk, drainage, or hydrology. See Hydraulic Impact Analysis.</p>

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	term increases in drainage runoff. The storage space would be designed on the drainage or hydrologic and hydraulic study.	
5-4	<ol style="list-style-type: none"><li>1. 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.</li><li>2. Where high channel velocities might result from construction, provide bank protection, such as rip rap, to protect levees from erosion.</li><li>3. 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 runoff.</li><li>4. Based on the drainage or hydrology and hydraulics study, determine any resulting changes to available evacuation plans or emergency response times.</li><li>5. To reduce emergency response times and public safety risks, raise structures and major roads out of the floodplain.</li><li>6. Provide automated flood warning systems.</li><li>7. Develop and implement area-specific evacuation and emergency response plans.</li><li>8. 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.</li><li>9. 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.</li><li>10. 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 analyses in accordance with applicable standards of USACE and American Society of Civil Engineers and Southern California Earthquake Center.</li><li>11. Prepare and implement a plan for periodic maintenance, inspections, repair, and rehabilitation of new water shortage and conveyance facilities that could cause flooding upon failure.</li><li>12. 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.</li><li>13. 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.</li><li>14. Construct new evacuation roads and access roads, as necessary.</li><li>15. Conduct Golden Guardian emergency drills.</li></ol>	<b>Consistent.</b> A hydraulic study was performed by MBK Engineers (see project materials) and the technical study and IS/MND did not identify a significant impact related to flood risk, drainage, or hydrology. See Hydraulic Impact Analysis.
5-5	<ol style="list-style-type: none"><li>1. 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.</li><li>2. 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.</li><li>3. 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.</li><li>4. 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.</li><li>5. 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.</li></ol>	<b>Consistent.</b> A hydraulic study was performed by MBK Engineers (see project materials) and the technical study and IS/MND did not identify a significant impact related to flood risk, drainage, or hydrology. See Hydraulic Impact Analysis.

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Land Use and Planning		
6-1	<p>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):</p> <ol style="list-style-type: none"> <li>1. Burying or visually masking new infrastructure or facilities;</li> <li>2. Restoring disturbed landscapes back to preconstruction conditions;</li> <li>3. Reestablishing access (e.g., reconnecting roads, rebuilding bridges);</li> <li>4. Relocating landmark buildings; or</li> <li>5. 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.</li> </ol>	<b>Not applicable.</b> Construction of the project does not include dividing existing established communities and/or residential areas.
6-2	<p>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:</p> <ol style="list-style-type: none"> <li>6. Recording a deed restriction that ensures permanent conservation and mitigation on other property of equal or greater environmental mitigation value;</li> <li>7. Creating a buffer or barrier between uses;</li> <li>8. Redesigning the project or selecting an alternate location that avoids or mitigates the impact; and/or</li> <li>9. Restoring disturbed land to conditions to provide equal or greater environmental value to the land affected by the covered action.</li> </ol>	<b>Not applicable.</b> The project includes the restoration and enhancement of seasonal wetlands and riparian wetland habitat. No compensation is required.
Agriculture and Forestry Resources		
7-1	<ol style="list-style-type: none"> <li>1. Design proposed projects to minimize, to the greatest extent feasible, the loss of the highest valued agricultural land.</li> <li>2. 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).</li> <li>3. 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.</li> <li>4. 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.</li> <li>5. Manage project operations to minimize the introduction of invasive species or weeds that may affect agricultural production on adjacent agricultural land.</li> <li>6. 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.</li> </ol>	<b>Consistent.</b> The IS/MND did not identify significant impacts related to agricultural or forestry resources. The project will restore wetland habitat while agricultural and grazing activities remain on the property.
7-2	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.	<b>Consistent.</b> One USFWS-owned parcel (132-0210-048-0000) within the project area formerly participated in the Williamson Act. The parcel was removed from the Williamson Act contract at the time at which it was purchased by the USFWS in 2005; however, the Agricultural Preserve Contract (Resolution/Contract No: 73-AP-055) on the parcel remains active. The proposed project will create waterfowl and shorebird habitat, while maintaining active grazing on the properties. Management of the restored wetland areas within the project site may create incidental recreational uses, but will not take the properties out of agricultural use. The IS/MND did not identify significant impacts related to agricultural or forestry resources.
7-3	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.	<b>Consistent.</b> The project does not occur in areas of forestland or timberland.



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7-4	<ol style="list-style-type: none"> <li>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).</li> <li>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.</li> <li>When removal of existing forestland or timberlands is required as part of an action, proponents must acquire the property at fair market value.</li> </ol>	<b>Not applicable.</b> The project will not result in the conversion of forestland or timberlands.
<b>Visual Resources</b>		
8-1	<ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Use vegetation plantings on proposed facility walls, such as climbing plants, espaliers, and other forms that soften the appearance of structures.</li> <li>Develop a landscaping plan for all proposed structures. Provide vegetative screening to soften views of structures. Landscaping should complement the surrounding landscape.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ol>	<b>Consistent.</b> Construction of the project would not include structural features, lighting, or other development features. Construction of the project will restore and enhance seasonal wetlands and riparian wetland habitat. The project will not impact visual resources.
8-2	<ol style="list-style-type: none"> <li>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.</li> <li>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.</li> </ol>	<b>Consistent.</b> Construction of the project would not include structural features, lighting, or other development features. Construction of the project will restore and enhance seasonal wetlands and riparian wetland habitat. No native and/or landmark trees occur on the project site, nor would any native and/or landmark trees be affected by off-site improvement required as a result of the project. The project will not impact visual resources.
8-3	Use shields for proposed lighting facilities, and direct lighting downward and inward toward the facilities.	<b>Not applicable.</b> The project will not result in a new source of substantial light, glare, or shadow that would result in safety hazards or adversely affect day or nighttime views in the area. New lighting is not a proposed aspect of the project, and as the proposed project would convert grazing land and low quality wetlands to high quality wetlands and habitat, no change in light, glare, or shadow would be perceptible to residents in the surrounding area or by Refuge visitors under the operational phase of the project. Construction is proposed for daylight hours and will not require temporary lighting to be installed. No impact would occur.

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Air Quality		
9-1	<p>1. 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 NOx and PM from diesel-fueled on-road and off-road vehicles and equipment.</p> <p>2. 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.</p> <p>3. Maintain all equipment in proper working condition according to manufacturer's specifications.</p> <p>4. Use electric equipment when possible. Use lower-emitting alternative fuels to power vehicles and equipment where feasible.</p> <p>5. Use low Volatile Organic Compounds (VOC) coatings and chemicals; minimize chemical use.</p> <p>6. Prepare a dust control plan and apply dust control measures at the construction sites.</p> <p>7. 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.</p> <p>8. 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.</p> <p>BMPs for fallowed lands could include, but are not limited to, the following:</p> <p>9. Implement conservation cropping sequences and wind erosion protection measures, such as:</p> <ul style="list-style-type: none"><li>• 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.</li><li>• 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</li><li>• Avoid any tillage if possible.</li><li>• Avoid any traffic or tillage when fields are extremely dry to avoid ulverization.</li></ul> <p>10. Apply soil stabilization chemicals to fallowed lands.</p> <p>11. Re-apply drain water to allow protective vegetation to be established.</p> <p>12. 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.</p> <p>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. <a href="http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx">http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA- GUIDELINES.aspx</a>).</p> <p><b>Basic Construction Mitigation Measures Recommended for ALL Proposed Projects</b></p> <p>13. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</p> <p>14. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.</p> <p>15. 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.</p> <p>16. All vehicle speeds on unpaved roads shall be limited to 15 mph.</p> <p>17. 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.</p> <p>18. Idling times shall be minimized either by shutting equipment off 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.</p> <p>19. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall</p>	<p><b>Items 1 through 8: Consistent.</b> All appropriate BMPs for air quality will be implemented during construction of the project. Mitigation Measure A of the IS/MND requires that the contractor implement the Sacramento Metro Air Quality Management District's Basic Construction Emission Control Practices and Enhanced Fugitive PM Dust Control Practices, which include:</p> <ul style="list-style-type: none"><li>• Limiting vehicle speeds on unpaved roads to 15 mph;</li><li>• Watering exposed soil with adequate frequency for continued moist soil without overwatering to the extent that sediment flows off the site;</li><li>• Suspending excavation/grading activity when wind speeds exceed 20 mph;</li><li>• Use of existing foliage as wind breaks on the windward sides of construction areas</li><li>• Install wheel washers or wash off all equipment leaving the site;</li><li>• Treat site accesses to a distance of 100 feet from the paved road with a 6 to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads; and</li><li>• Post a publicly visible sign with the telephone number and person to contact at the County (and the phone number of the Sacramento Metropolitan AQMD) regarding dust complaints.</li></ul> <p><b>Items 9 through 12: Not applicable.</b> The project does not include construction on fallowed lands.</p> <p><b>Items 13 through 20: Consistent.</b> All applicable Basic Construction Mitigation Measures recommended by the Sacramento Metropolitan Air Quality Management District (SMAQMD) will be implemented during construction.</p> <p><b>Items 21 through 33: Not applicable.</b> The proposed project construction emissions will not be above SMAQMD construction thresholds and all applicable mitigation measures recommended by SMAQMD will be implemented during construction.</p>

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	<p>be checked by a certified visible emissions evaluator.</p> <p>20. 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.</p> <p><b>Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Threshold</b></p> <p>21. 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.</p> <p>22. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.</p> <p>23. 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.</p> <p>24. 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.</p> <p>25. 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.</p> <p>26. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.</p> <p>27. 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.</p> <p>28. 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.</p> <p>29. Minimizing the idling time of diesel powered construction equipment to two minutes.</p> <p>30. 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 NOx 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.</p> <p>31. Use low VOC (i.e., reactive organic gases or ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).</p> <p>32. Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM.</p> <p>33. Require all contractors to use equipment that meets ARB's most recent certification standard for off-road heavy duty diesel engines.</p>	
9-2	<p>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:</p> <ul style="list-style-type: none"> <li>• A list of potential odor sources</li> <li>• Identification and description of the most likely sources of odor</li> <li>• Identification of potential, intensity, and frequency of odor from likely sources</li> <li>• A list of odor control technologies and management practices that could be implemented to minimize odor releases</li> <li>• 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.</li> </ul>	<p><b>Not applicable.</b> The project does not involve objectionably odorous substances, nor are there a substantial number of people in the nearby vicinity. While construction equipment can create odors from diesel and other chemicals in the immediate vicinity of its use, this would be temporary and would not occur in the vicinity of a substantial number of people. Impacts would be less than significant.</p>
9-3	<p>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.</p> <p>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.</p> <p>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 (<i>from the 2013 Delta Plan Program EIR</i>):</p> <ol style="list-style-type: none"> <li>1. Implement Mitigation Measure 9-1 to reduce air emissions and air quality impacts from construction and operations of the Proposed</li> </ol>	<p><b>Consistent.</b> The IS/MND did not identify a significant impact related to emissions or air contaminants affecting sensitive receptors. The project is located in a rural area and spread out over 370 acres. There are no sensitive receptors (i.e., schools, nursing homes, hospitals, daycare centers, etc.) near the project site.</p>

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	<p>Project.</p> <ol style="list-style-type: none"><li>2. Use equipment with diesel engines designed or retrofitted to minimize DPM emissions, usually through the use of catalytic particulate filters in the exhaust.</li><li>3. Use electric equipment to eliminate local combustion emissions.</li><li>4. Use alternative fuels, such as compressed natural gas or liquefied natural gas.</li></ol> <p>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.</p>	
Cultural Resources		
10-1	<ol style="list-style-type: none"><li>1. 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.</li><li>2. If potentially California Register of Historical Resources (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 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.</li><li>3. 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:<ul style="list-style-type: none"><li>• Planning construction to avoid the sensitive sites</li><li>• Deeding the sensitive sites into permanent conservation easements</li><li>• Capping or covering archaeological sites</li><li>• Planning parks, green space, or other open space to incorporate the sensitive sites</li><li>• Granting of cultural easements to Native American tribes for the purpose of protecting cultural resource properties</li></ul></li><li>4. 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.</li><li>5. 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 (NAHC) 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.</li><li>6. 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.</li><li>7. 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.</li></ol>	<p><b>Consistent.</b> Tom Origer &amp; Associates prepared cultural resources report for the project. No built environment or historic archaeological resources eligible for the California Register of Historical Resources were identified through research or survey on the project site. Indigenous tribal cultural resources are known to occur within the project area. Consultation under CEQA and NEPA occurred. Through consultation under Section 106 and CEQA, tribes confirmed that the project area contains tribal cultural properties and tribal cultural resources of significance. The tribes and lead agencies mutually agreed that tribal cultural resources mitigation measures were appropriate and feasible for the project. Avoidance and mitigation measures include a NAGPRA POA and Native American and archeological monitors during ground disturbing activities. Mitigation Measures J &amp; K of the IS/MND cover the unanticipated discovery of cultural, tribal cultural resources, and human remains. Mitigation Measure L requires that paid tribal monitors be present during ground-disturbing activities.</p>
10-2	<p>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</p>	<p><b>Consistent.</b> Mitigation Measure K of the IS/MND covers unanticipated discovery of human remains in accordance with procedures and protocols set</p>

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	<p>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).</p> <ol style="list-style-type: none"><li>1. If human remains are encountered during ground-disturbing construction activities, stop work that would potentially affect the find and contact the county coroner.<ol style="list-style-type: none"><li>a. 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]).</li><li>b. Following the coroner's findings, the property owner, contractor or project proponent, an archaeologist, and the NAHC-designated 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.</li><li>c. 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.</li><li>d. 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 descendants, 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:<ol style="list-style-type: none"><li>(1) Record the site with the NAHC or the appropriate information center.</li><li>(2) Use an open space or conservation zoning designation or easement.</li><li>(3) Record a document with the county in which the property is located.</li></ol></li><li>e. 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.</li></ol></li><li>2. 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.</li></ol>	<p>forth in CEQA Guidelines Section 15064.5(e)(1). In the event that the County coroner determines that the remains are of Native American descent, the California Native American Heritage Commission shall be contacted to determine most likely descendant. As required by PRC Section 5097.98, the County shall ensure that further development activity avoids damage or disturbance in the immediate vicinity of the Native American human remains, according to generally accepted cultural or archaeological standards or practices, until the County has conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.</p>
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### Attachment C: Delta Plan Mitigation Measure Consistency for the Stone Lakes Wildlife Refuge Restoration Project

10-3	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. 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.</li> <li>3. 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.</li> <li>4. 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.</li> <li>5. 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.</li> <li>6. 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.</li> </ol>	<b>Consistent.</b> No built, historical resources would be affected by the proposed project. Furthermore, no built environment or historic archaeological resources eligible for the California Register of Historical Resources were identified through research or survey.
10-4	Mitigation Measures 10-1 and 10-3 will also mitigate Impact 10-4, Disturbance or Destruction of Cultural Landscapes and Traditional Cultural Properties ( <i>from the 2013 Delta Plan Program EIR</i> ). 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.	<b>Consistent.</b> Refer back to 10-1 to 10-3 consistency determinations.
<b>Geology and Soils</b>		
11-1	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. 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.</li> </ol>	<b>Not applicable.</b> The project does not include construction of buildings and/or facilities. Furthermore, Sacramento County is not within an Alquist-Priolo Earthquake Fault Zone.
11-2	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.	<b>Not applicable.</b> The IS/MND did not identify a significant impact related to seismic hazards. Additionally, the project does not include pile driving or any "strong ground motion" related to construction.
11-3	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. A geotechnical investigation shall be performed by an appropriately licensed professional engineer and/or geologist to determine the</li> </ol>	<p><b>Items 1, 3, and 4: Consistent.</b> Impacts associated with grading operation activities would be avoided and/or minimized with the implementation of BMPs identified in the SWPPP that is prepared for the project.</p> <p><b>Item 2: Not applicable.</b> The IS/MND did not identify any significant or potentially significant impacts related to soil liquefaction nor subsidence.</p>

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	<p>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.</p> <p>3. 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.</p> <p>4. 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).</p> <p>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.</p>	
11-4	<p>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:</p> <ol style="list-style-type: none"> <li>1. 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.</li> <li>2. 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.</li> <li>3. 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.</li> <li>4. 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.</li> <li>5. 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.</li> <li>6. 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.</li> </ol>	<p><b>Consistent.</b> The project will comply with Central Valley Regional Water Quality Control Board's NPDES requirements and preparation of a Storm Water Pollution Prevention Plan. The project will be required to obtain all applicable state and federal permits for work within jurisdictional waters. Additionally, an Erosion and Sediment Control Plan, detailing project-specific sediment control and storm water quality BMPs is required prior to the commencement of construction. Finally, the County requires developers to utilize the Stormwater Quality Design Manual for Sacramento Region in the selecting and designing post-construction facilities to treat runoff from the project.</p>
11-5	<p>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.</p>	<p><b>Not applicable.</b> The project is not in an area of expansive clay soils.</p>
11-6	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. For ecosystem restoration projects that might cause subsurface seepage of nuisance water onto adjacent lands: <ol style="list-style-type: none"> <li>a. 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.</li> <li>b. Develop a seepage monitoring plan if subsurface seepage constitutes nuisance water to the adjacent land.</li> <li>c. Implement seepage control measures if adjacent land is not useable, such as installing subsurface agricultural drainage systems to</li> </ol> </li> </ol>	

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	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.	
11-7	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.	<b>Consistent.</b> At the request of the Sacramento County Department of Water Resources, MBK Engineers prepared a Hydraulic Impact Analysis Technical Memorandum (October 2020) that confirmed that the proposed project would not have an impact on the 100-year flood water surface elevation in the project area or the project vicinity (Point Pleasant). The project would result in the creation of new berms and some levee regrading. All work would be subject to permits and approvals from the US Army Corps of Engineers.
11-8	<p>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.<a href="http://www.swrcb.ca.gov/water_issues/programs/owts/index.shtml">http://www.swrcb.ca.gov/water_issues/programs/owts/index.shtml</a>):</p> <ul style="list-style-type: none"> <li>○ Containment systems that do not generate waste</li> <li>○ Anoxic and anaerobic systems</li> <li>○ Attached and suspended growth aerobic treatment systems</li> <li>○ Natural treatment systems</li> <li>○ Disinfection systems</li> <li>○ Engineered-fill leach fields</li> <li>○ Monitoring control systems</li> </ul>	<b>Not applicable.</b> The project does not involve on-site wastewater treatment systems.
11-9	<p>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:</p> <ul style="list-style-type: none"> <li>○ Over-excavation and import of suitable fill material</li> <li>○ Structural reinforcement of constructed works to resist deformation</li> <li>○ Construction of structural supports below the depth of highly organic soils into materials with suitable bearing strength</li> </ul>	<b>Not applicable.</b> The IS/MND did not identify significant impacts related to soil hazards.
<b>Paleontological Resources</b>		
12-1	<p>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:</p> <ul style="list-style-type: none"> <li>• Confirming the paleontological sensitivity (high, moderate, or low) of the areas to be impacted through review of project-level geological and geotechnical data</li> <li>• 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</li> <li>• The assessment and recovery of discovered fossil resources</li> <li>• The preparation and curation of fossil finds</li> </ul> <p>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.</p>	<b>Not applicable.</b> The IS/MND did not identify a significant impact related to paleontological resources. No paleontological resources are known or suspected, and no unique geologic features exist on the project site.
<b>Mineral Resources</b>		
13-1	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. Maintain adequate buffer between future projects and designated MRZ-2 sectors.</li> <li>3. 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.</li> </ol>	<b>Not applicable.</b> The project is not located within an Aggregate Resource Area as identified by the Sacramento County General Plan Land Use Diagram, nor are any important mineral resources known to be located on the project site.



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	<div>4. Ensure future land use changes within designated mineral resource extraction areas recognize mineral resource extraction as a compatible use.</div> <div>5. Limit use of construction aggregate to local sources with sufficient capacity to meet both project and future local development needs, to the extent possible.</div> <div>6. Use recycled aggregate where possible, to decrease the demand for new aggregate.</div>	
13-2	<div>1. Ensure access is maintained to existing, active mineral resource extraction sites both during and after project construction.</div> <div>2. Implement recommendations identified in the Division of Oil, Gas, and Geothermal Resources of the State Department of Conservation (DOGGR) construction site well review program (DOC, 2007. Well Review Program: Introduction and Application), such as:<div><div>For all future projects, identify all existing natural gas well sites and oil production facilities within or in close proximity to the project area.</div><div>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.</div><div>Identify safety measures to prevent unauthorized access to equipment.</div><div>Include safety shut-down devices on oil and natural gas wells and other equipment, as appropriate.</div><div>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.</div><div>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.</div><div>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.</div></div></div>	<b>Not applicable.</b> The project is not located within an Aggregate Resource Area as identified by the Sacramento County General Plan Land Use Diagram, nor are any important mineral resources known to be located on the project site.
Hazardous Materials		
14-1	<div>1. 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.</div> <div>2. Refueling of vehicles and equipment to occur only when employees are present.</div> <div>3. Vehicle and equipment service and maintenance conducted only by authorized personnel.</div> <div>4. Refueling conducted only with approved pumps, hoses, and nozzles.</div> <div>5. Catch-pans placed under equipment to catch potential spills during servicing.</div> <div>6. All disconnected hoses placed in containers to collect residual fuel from the hoses.</div> <div>7. Vehicle engines shut down during refueling.</div> <div>8. No smoking, open flames, or welding allowed in refueling or service areas.</div> <div>9. Refueling performed away from bodies of water to prevent contamination of water in the event of a leak or spill.</div> <div>10. When refueling is completed, the service truck to leave the project site.</div> <div>11. Service trucks provided with fire extinguishers and spill containment equipment, such as absorbents.</div> <div>12. 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.</div> <div>13. Provision of an automatic sprinkler system for indoor hazardous material storage areas.</div> <div>14. Provision of an exhaust system for indoor hazardous material storage areas.</div> <div>15. Separation of incompatible materials by isolating them from each other with a noncombustible partition.</div> <div>16. Spill control in all storage, handling, and dispensing areas.</div> <div>17. 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.</div>	<b>Consistent.</b> The IS/MND did not identify a significant impact related to the routine use of hazardous materials. The Project would comply with state and federal regulations related to materials handling. Additional construction BMPs to reduce water quality impacts will be implemented per the SWPPP prepared for the project.

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	<p>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.</p> <p>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.</p>	
14-2	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. 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.</li> </ol>	<b>Not applicable.</b> The project does not involve the transport, use, and/or disposal of hazardous material in the operational phase.
14-3	<ol style="list-style-type: none"> <li>1. 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 DFW and local mosquito and vector control agencies regarding these strategies and specific techniques to help minimize mosquito production.</li> <li>2. 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.</li> <li>3. Tidal management focused on mosquito problems arising from the residual tidal and floodwaters remaining in depressions and cracked ground (Solano County Mosquito Abatement District (SCMAD), 2011. Site accessed February 6, 2011. <a href="http://www.solanomoquito.com">http://www.solanomoquito.com</a>).</li> <li>4. 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.</li> </ol>	<b>Consistent.</b> The Stone Lakes National Wildlife Refuge is a managed refuge; specifically wetlands are managed so that they are typically dry during the summer months, which results in vegetation and mosquito control. The Refuge is maintained to increase the diversity of waterfowl and wildlife species. The project site does not contain tidal marsh habitat.
14-4	<ol style="list-style-type: none"> <li>1. Avoid creating hazardous wildlife attractants within a distance of 10,000 feet of an Airport Operations Area.</li> <li>2. Maintain a distance of 5 statute miles between the farthest edge of the Airport Operations Area and hazardous wildlife attractants.</li> </ol>	<b>Not applicable.</b> The project is not located within five miles of an Airport Operations Area.
14-5	Prepare and implement a fire management plan to minimize potential for wildland fires.	<b>Not applicable.</b> The project is not located within a CA Department of Forestry and Fire Protection Fire Hazard Severity Zone; moreover, the project would not expose people or structures to wildfire risk.
<b>Noise</b>		
15-1	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. Locate construction equipment away from sensitive receptors, to the extent feasible, to reduce noise levels below applicable local standards.</li> <li>3. Maintain construction equipment to manufacturers' recommended specifications, and equip all construction vehicles and equipment with appropriate mufflers and other approved noise-control devices.</li> <li>4. Limit idling of construction equipment to the extent feasible to reduce the time that noise is emitted.</li> <li>5. 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.</li> <li>6. 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.</li> <li>7. Near sensitive receptors, avoid or minimize use of construction equipment known to generate high levels of groundborne vibration (for example, pile drivers).</li> </ol>	<p><b>Not applicable.</b> The IS/MND did not identify any significant impacts related to generation of substantial noise.</p> <p>The project is not in the vicinity of any uses that generate substantial noise, nor will the completed project generate substantial noise. Construction will increase noise temporarily, but it will not result in exposure of persons to, or generation of, noise levels in excess of applicable standards.</p>
15-2	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. Provided that future groundborne vibration results in significant impacts at sensitive receptors, the following measures shall be implemented:</li> </ol>	<b>Not applicable.</b> The project will not involve the use of pile driving or other methods that would produce excessive groundborne vibration or noise levels at the property boundary. No impact would occur.

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	<ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Adjacent historic features will be covered or temporarily shored, as necessary, for protection from vibrations, in consultation with the appropriate cultural resources authority.</li> <li>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.</li> <li>Pile-driving activities conducted within 285 feet of sensitive receptors will occur during daytime hours to avoid sleep disturbance during evening and nighttime hours.</li> </ol>	
15-3	<ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ol>	<p><b>Not applicable.</b> The IS/MND did not identify any significant impacts related to generation of substantial noise.</p> <p>The project is not in the vicinity of any uses that generate substantial noise, nor will the completed project generate substantial noise. Construction will increase noise temporarily, but it will not result in exposure of persons to, or generation of, noise levels in excess of applicable standards.</p>
<b>Population and Housing</b>		
16-1	<ol style="list-style-type: none"> <li>Require compliance with applicable local policies and regulations regarding the provision of affordable housing.</li> <li>Construct replacement housing if existing housing will be displaced.</li> </ol>	<p><b>Not applicable.</b> The project does not include housing and would not result in the loss of housing.</p>
<b>Public Services</b>		
17-1	<ol style="list-style-type: none"> <li>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.</li> <li>Develop worker training programs to reduce construction and operations risks.</li> <li>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.</li> <li>Develop traffic plans and emergency response plans for construction and operations phases of new facilities.</li> <li>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.</li> </ol>	<p><b>Not applicable.</b> The project did not identify any significant impacts related to public services.</p>
<b>Recreation</b>		
18-1	<ol style="list-style-type: none"> <li>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.</li> <li>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</li> </ol>	<p><b>Not applicable.</b> The IS/MND did not identify a significant impact related to recreation nor recreational facilities.</p>

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	<p>materials, water efficient irrigation systems, and synthetic turf substitutes where appropriate, in such a way as to retain recreational facilities and use areas.</p> <p>3. 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.</p>	
18-2	<p>1. 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.</p> <p>2. Lead agencies shall provide additional operations and maintenance of existing facilities in order to prevent deterioration of these facilities.</p> <p>3. If possible, lead agencies shall provide temporary replacement facilities.</p> <p>4. If the increase in use is temporary, once use is decreased back to existing conditions, degraded facilities shall be rehabilitated or restored.</p> <p>5. 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.</p>	<p><b>Not applicable.</b> The IS/MND did not identify a significant impact related to recreation nor recreational facilities.</p>
18-3	<p>1. Projects shall be sited in areas that would have minimal adverse physical effect on the environment.</p> <p>2. 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.</p>	<p><b>Consistent.</b> The project consists of the restoration of 260 acres of seasonal wetlands, 40 acres of riparian wetland habit, and enhance approximately 20 acres of low-quality wetland habitat. Although sensitive natural communities will be temporarily impacted by construction, the project would result in net increases of riparian and wetland habitats.</p>
<b>Traffic and Transportation</b>		
19-1	<p>1. Avoid modifications to federal, State, and county highways, local roadways, and bridges that may reduce vehicle capacity, to the extent feasible.</p> <p>2. 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.</p> <p>3. 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.</p> <p>4. 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.</p> <p>5. 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.</p> <p>6. 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.</p> <p>7. 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</p>	<p><b>Not applicable.</b> The project does not include changes to existing access and/or circulation patterns would occur as a result of the project; therefore, no impacts to public safety on area roadways will result. The project is located within a rural area of the County, the temporary increase in construction vehicles and haul trucks will not impact existing access nor circulation patterns. Construction and staging of construction equipment would occur on-site, within the Refuge and on one private property, away from all major roads or thoroughfares.</p> <p>In water work is not being completed in channels used for navigation. Additionally, closure of channels is not anticipated as part of construction.</p>

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	<p>indicated by the appropriate air pollution control district. The following dust control measures may be used to stabilize unpaved roadways:</p> <ul style="list-style-type: none"><li>• Watering</li><li>• Uniform layer of washed gravel</li><li>• Roadmix</li><li>• Paving</li></ul> <p>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.</p> <p>8. 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:</p> <ul style="list-style-type: none"><li>• Turn restrictions</li><li>• Roadway widening to add lanes or shoulders</li><li>• Redesign of freeway on- and off-ramps</li><li>• Median construction/modification to restrict access</li><li>• Flaring of intersections to add turn lanes</li><li>• Provision of passing lanes or turnouts</li><li>• Acceleration and deceleration lanes</li><li>• Removal of obstructions</li><li>• Roundabouts</li><li>• Restriping to add lanes with or without parking removal and restrictions</li><li>• Protected left-turn pockets or free right-turn lanes</li><li>• Parking restrictions, daily or during peak hours</li><li>• Fair share contributions to approved projects identified in the agency's Capital Improvement Plan</li><li>• Fair share contributions to traffic signals identified in the agency's traffic signal plan.</li></ul> <p>9. 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.</p> <p>10. 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.</p> <p>11. To the extent feasible, ensure that safe boat access to public launch and docking facilities, businesses, and residences is maintained.</p> <p>12. Coordinate with transit system operators to establish appropriate alternate transit system routes to be rerouted during construction activities, as appropriate.</p> <p>13. 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.</p> <p>14. Implement a program to provide boater education on procedures for waiting at and using the boat passage facility.</p> <p>15. 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.</p>	
19-2	<p>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:</p> <ul style="list-style-type: none"><li>• Routine inspections and correction procedures to ensure that facility safety features are in good working order.</li><li>• Routine inspections and correction procedures for navigational hazards around facilities, including floating or submerged debris and the formation of shoals.</li><li>• 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.</li></ul>	<p><b>Not applicable.</b> The project does not consist of facilities requiring emergency facility operation or inspection.</p>

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19-3	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. Phase construction activities, and use multiple routes to and from offsite locations to minimize the daily amount of traffic on individual roadways.</li> <li>3. Post warnings about the potential presence of slow-moving vehicles.</li> <li>4. Use traffic-control personnel when appropriate.</li> <li>5. 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.</li> <li>6. Notify appropriate emergency service providers of project construction throughout the construction period to ensure that emergency access through construction areas is maintained.</li> </ol>	<b>Consistent.</b> The project would not interfere with any known emergency response or evacuation plan. Construction and staging of construction equipment would occur on-site, within the Refuge and on one private property, away from all major roads or thoroughfares.
19-4	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.	<b>Not applicable.</b> Construction and staging of construction equipment would occur on-site, within the Refuge and on one private property, away from all major roads or thoroughfares.
<b>Utilities and Service Systems</b>		
20-1	<ol style="list-style-type: none"> <li>1. Establish construction debris disposal fee schedules to promote recycling and minimize solid waste.</li> <li>2. Limit disposal of construction debris and other solid waste at local landfills if the landfills have limited capacity.</li> <li>3. 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.</li> <li>4. Require construction contractors to prepare construction debris management plans and require reuse or recycling of construction debris.</li> <li>5. 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).</li> </ol>	<b>Consistent.</b> The IS/MND did not identify significant impacts related to wasteful, inefficient, or unnecessary consumption of resources during project construction. During construction, energy resources would be required to transport equipment, workers, and solid waste to and from the site as well as to power construction equipment. On-site vehicle staging and minimization of equipment idling pursuant to California law would ensure that energy resources would not be used in a wasteful or inefficient manner during construction.
20-2	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. Coordinate utility relocation and modification with utility providers and local agencies to integrate potential other construction projects and minimize disturbance to the communities.</li> <li>3. Verify utility locations through field surveys and services such as Underground Service Alert.</li> </ol>	<b>Consistent.</b> The IS/MND did not identify any significant impacts related to utilities and service systems. The project would not result in a significant disruption to utilities or services. The project includes new and replacement water control structures within existing berms. In the Headquarters units on the northern side of the Stone Lakes NWR, three existing overflow valves would be removed and replaced. All other irrigation and utility piping would be protected in place and/or exists outside the limit of disturbance. Two PG&E electrical transmission poles are located in Headquarter Unit 9, but project designs call for a berm to be constructed southeast of these poles, maintaining full access and right-of-way.
<b>Climate Change and Greenhouse Gas Emissions</b>		
21-1	<p>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:</p> <ul style="list-style-type: none"> <li>• Use alternative fuels for construction equipment.</li> <li>• Use electric and hybrid construction equipment.</li> <li>• Limit construction equipment idling beyond regulatory requirements.</li> <li>• Institute a heavy-duty off-road vehicle plan.</li> <li>• Implement a construction vehicle inventory tracking system.</li> <li>• Use local building materials for at least ten percent of total materials.</li> <li>• Recycling or reusing at least 50 percent of construction waste or demolition materials.</li> </ul> <p>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</p>	<p><b>Not applicable.</b> The IS/MND did not identify significant impacts related to construction-related nor operational GHG emissions.</p> <p>Mitigation Measure A of the IS/MND requires that the contractor implement the Sacramento Metro Air Quality Management District's Basic Construction Emission Control Practices and Enhanced Fugitive PM Dust Control Practices, which include:</p> <ul style="list-style-type: none"> <li>• Limiting vehicle speeds on unpaved roads to 15 mph;</li> <li>• Watering exposed soil with adequate frequency for continued moist soil without overwatering to the extent that sediment flows off the site;</li> <li>• Suspending excavation/grading activity when wind speeds exceed 20 mph;</li> <li>• Use of existing foliage as wind breaks on the windward sides of construction areas</li> <li>• Install wheel washers or wash off all equipment leaving the site;</li> </ul>

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<p>for CEQA Purposes (DWR, 2010. 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.</p> <p><b>Efficiency</b></p> <ol style="list-style-type: none"><li>1. Design buildings to be energy efficient. Site buildings to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.</li><li>2. Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings.</li><li>3. Install light colored “cool” roofs, cool pavements, and strategically placed shade trees.</li><li>4. Install energy efficient heating and cooling systems, appliances and equipment, and control systems.</li><li>5. Install light-emitting diodes for street and other outdoor lighting.</li><li>6. Limit the hours of operation of outdoor lighting.</li><li>7. Provide education on energy efficiency.</li></ol> <p><b>Renewable Energy</b></p> <ol style="list-style-type: none"><li>1. Install solar and wind power systems and energy-efficient heating ventilation and air conditioning.</li><li>2. Install solar panels over parking areas.</li><li>3. Use combined heat and power in appropriate applications.</li></ol> <p><b>Water Conservation and Efficiency</b></p> <ol style="list-style-type: none"><li>1. Create water-efficient landscapes.</li><li>2. Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.</li><li>3. Use reclaimed water for landscape irrigation. Install the infrastructure to deliver and use reclaimed water.</li><li>4. Design buildings to be water-efficient. Install water-efficient fixtures and appliances.</li><li>5. Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff.</li><li>6. Restrict the use of water for cleaning outdoor surfaces and vehicles.</li><li>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.)</li><li>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.</li><li>9. Provide education about water conservation.</li></ol> <p><b>Solid Waste Measures</b></p> <ol style="list-style-type: none"><li>1. Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.</li><li>2. Recover by-product methane to generate electricity.</li></ol> <p><b>Transportation and Motor Vehicles</b></p> <ol style="list-style-type: none"><li>1. Limit idling time for commercial vehicles, including delivery and construction vehicles.</li><li>2. Use low or zero-emission vehicles, including construction vehicles.</li><li>3. Institute a heavy-duty off-road vehicle plan and a construction vehicle inventory tracking system for construction projects.</li><li>4. Promote ride sharing.</li><li>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).</li><li>6. Increase the cost of driving and parking private vehicles by, e.g., imposing tolls and parking fees.</li><li>7. Provide shuttle service to public transit/[work sites].</li><li>8. Provide information on all options for individuals and businesses to reduce transportation-related emissions.</li></ol> <p><b>Carbon Offsets</b></p>	<ul style="list-style-type: none"><li>• Treat site accesses to a distance of 100 feet from the paved road with a 6 to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads; and</li><li>• Post a publicly visible sign with the telephone number and person to contact at the County (and the phone number of the Sacramento Metropolitan AQMD) regarding dust complaints.</li></ul>
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	<ol style="list-style-type: none"> <li>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.</li> <li>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: <ol style="list-style-type: none"> <li>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.)</li> <li>b. Whether the emissions reductions from off-site mitigation can be quantified and verified</li> <li>c. Whether the mitigation ratio should be greater than 1:1 to reflect any uncertainty about the effectiveness of the offset.</li> </ol> </li> </ol> <p><b>SmartWay Truck Efficiency</b> 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.</p> <p><b>Tire Inflation Program</b> The strategy involves actions to ensure that vehicle tire pressure is maintained to manufacturer specifications.</p> <p><b>Blended Cements</b> 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.</p> <p><b>Anti-idling Enforcement</b> 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.</p>	
21-2	<ol style="list-style-type: none"> <li>1. Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design for flood protection of the facilities constructed along waterways. Prepare the study in accordance with applicable standards of Federal Emergency Management Agency (FEMA), USACE, DWR, Central Valley Flood Protection Board, San Francisco Bay Conservation and Development Commission (BCDC), 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, Central Valley Flood Protection Board, and BCDC.</li> <li>2. Design intakes/diversions and outfalls to be operated at multiple surface water elevations between existing conditions and maximum projected surface water elevations during a high flow event with sea level rise for the life of the facility.</li> <li>3. Prepare a hydrogeologic study that would assess long-term groundwater recharge and safe yield of wells and wellfields under a sustainable groundwater management plan. If the wells can be used to a greater degree in some years in a manner that would support the sustainable groundwater management plan to avoid long-term groundwater overdraft, wells could be drilled to deeper depths than would be required under existing conditions.</li> </ol>	<b>Not applicable.</b> The IS/MND did not identify a significant impact related to climate change adaptation, sea level rise, nor flooding. Although a hydraulics study was prepared, the project will not introduce any new facilities that would expose people to flood risk. The project does not construction of wells.
21-3	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 Delta 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.	<b>Consistent.</b> The IS/MND did not identify a significant impact related to climate change adaptation, sea level rise, nor flooding. The project prepared a hydraulics study. Project design will be compliant with all local, state, and federal standards/regulations as well as conditions of all necessary regulatory permits.
21-4	<ol style="list-style-type: none"> <li>1. Prepare a drainage or hydrology and hydraulics study that would assess the need and provide a basis for the design for projects that reduce risks of floods in the Delta. Prepare the study in accordance with applicable standards of FEMA, USACE, DWR, and 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.</li> <li>2. Based on the results of the drainage or hydrologic and hydraulic study, arrange the length of flood management facilities in the direction of the floodplain flow to maximize surface flows under flood conditions.</li> <li>3. Install setback levees or bypass channels to maintain channel capacity and to mitigate hydraulic impacts of high flow events and higher surface water elevations due to climate change and sea level rise.</li> </ol>	<b>Consistent.</b> The IS/MND did not identify a significant impact related to climate change adaptation, sea level rise, nor flooding. The project prepared a hydraulics study. Project design will be compliant with all local, state, and federal standards/regulations as well as conditions of all necessary regulatory permits.



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	4. 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, Central Valley Flood Protection Board, BCDC, 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.	
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