Executive Summary

Introduction

The State Water Resources Control Board (State Water Board) proposes to develop a Clean Water Act Section 401 General Water Quality Certification and Waste Discharge Requirements for Implementation of Restoration Projects Statewide Order (Order) to improve the efficiency of regulatory reviews for projects throughout the state that would restore aquatic or riparian resource functions and/or services. The Order would establish an authorization process for environmentally beneficial restoration project types and associated measures to protect species and the environment.

The State Water Board and Nine Regional Water Quality Control Boards (Regional Boards), which exercise rulemaking and regulatory activities by basins, have authority to regulate discharges of waste that threaten or cause impairment of designated beneficial uses or cause nuisance to waters of the state, including discharges related to restoration activities through issuance of waste discharge requirements (WDRs) pursuant to the Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.).

The State Water Board and Regional Boards also have regulatory authority under Clean Water Act (CWA) Section 401 (water quality certification) for projects that must be authorized by the U.S. Army Corps of Engineers (USACE)[1] under CWA Section 404 and Sections 10 and 14 of the Rivers and Harbors Act of 1899 (U.S. Code Title 33, Section 408). The Order would provide WDRs as well as CWA Section 401 Water Quality Certification.

The Order would authorize projects that may discharge directly or indirectly to “waters of the state,”[2] including “waters of the United States” under USACE jurisdiction.

[1] All three USACE districts that cover California are participating in the statewide multi-agency program to Facilitate Implementation of Restoration Projects, described later in Section 1.1. USACE's Sacramento District is the lead for California; the San Francisco and Los Angeles Districts are also participating.

[2] All “waters of the United States” (also known as “federal waters”) within the borders of California are also “waters of the state,” but the converse is not true. “Waters of the United States” is a subset of “waters of the state,” which includes waters outside of federal jurisdiction. Thus, the Order would apply to projects within both state and federal jurisdictions.

The State Water Board has previously authorized a General Order for Small Habitat Restoration Projects (Order #SB12006GN) that meet the following project size and CEQA eligibility requirements:

(a) The project does not exceed 5 acres or a cumulative total of 500 linear feet[3] of streambank or coastline.

(b) The project qualifies for the California Environmental Quality Act (CEQA) Class 33 categorical exemption (State CEQA Guidelines Section 15333).

Restoration projects that do not qualify for the General Order for the Small Habitat Restoration Projects, or most recent update, or terms of the Order, must obtain an Individual Water Quality Certification and/or WDRs from the State Water Board or appropriate Regional Board.

Figure ES-1 provides a process flow chart for the Order.

To be permitted, a project must meet the Order's definition of a restoration project: an eligible project type that would result in a net increase in aquatic or riparian resource functions and/or services through implementation of relevant protection measures listed below. (See Section 2.6, *Categories of Restoration Projects in the Order*, and Section 2.8, *Programmatic Sideboards, General Protection Measures, and Other Requirements* in the draft PEIR.) The project must also be included in the list of eligible project types. (See Section 1.2, *Categories of Eligible Project Types* in the Draft PEIR.)

The State Water Board staff would administer and oversee the Order as described in Section 2.10, *Oversight and Administration* of the draft PEIR. Regional Board staff members would coordinate with the State Water Board on administration of the Order to permit eligible projects in their regions. For project proponents to use the Order, their restoration projects would need to comply with CEQA. See Section 1.3, *Overview and Use of the PEIR* of the draft EIR and below, for additional information on the CEQA process for restoration projects.

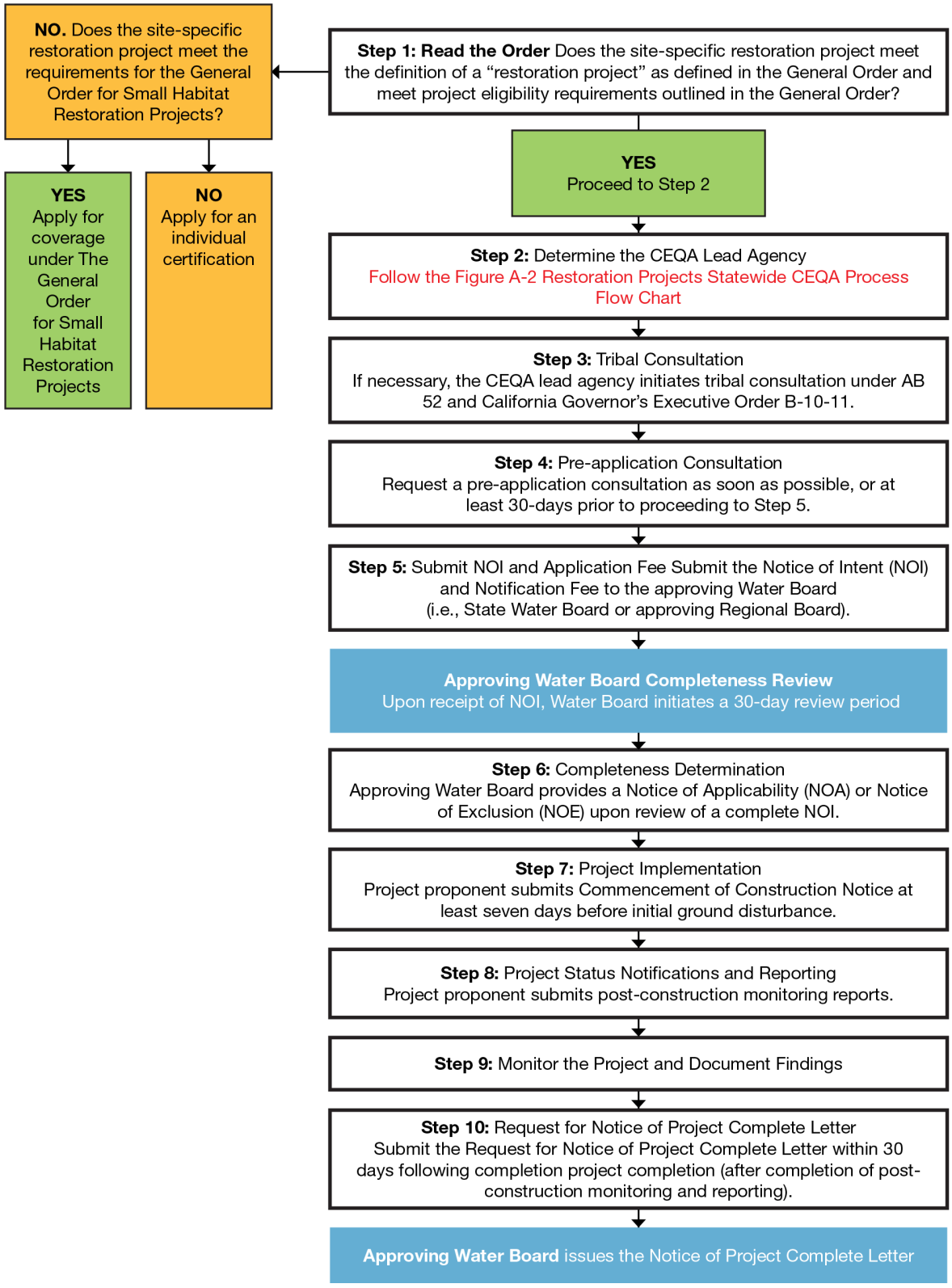
The State Water Board, as the CEQA lead agency, determined that an environmental impact report (EIR) was the appropriate CEQA document for the Order. The EIR has been prepared in conformance with CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Title 14, Section 15000 et seq.). More specifically, the EIR is a program EIR (PEIR) and has been prepared pursuant to and consistent with the requirements of Section 15168 of the State CEQA Guidelines.

Background of the Order

The California floristic province has been ranked as one of 25 biodiversity hotspots of global importance (Myers et al. 2000). Aquatic, riparian, floodplain, and wetland habitats are critical components, supporting the most diverse and species-rich ecosystems in the province and throughout the arid and semiarid portions of North America. Over the last

[3] The Small Habitat Restoration Order may be amended or reissued; therefore, the 5 acres or 500 linear feet requirement is subject to change.

Figure ES-1 Order Flow Chart



century, the ecosystem services provided by aquatic riparian, floodplain, and wetland habitats have been affected by environmental degradation, land use conversions, and water management. As a result, California has more than 300 threatened and endangered species and more federally protected animals than any other state, and ranks second only to Hawaii in the number of protected plants (USFWS 2013). Efforts to enhance and restore habitats and ecological functions and processes throughout the state are ongoing. A wide variety of California state laws, mandates, plans, mitigation requirements, and initiatives—many of which are the result of decades-long debates and reports based on scientific research—call for restoration of aquatic, riparian, and floodplain habitats.

To ensure that funding is used efficiently and that restoration projects are implemented in a timely manner, agencies have already developed programmatic processes that would permit qualifying restoration projects. Examples of these existing permits and processes are included in **Appendix D** of the draft PEIR.

Project Purpose and Objectives

Purpose

The State Water Board proposes to develop a statewide Order to improve the efficiency of regulatory review for projects that restore aquatic and riparian habitat and improve water quality. The Order would establish a permitting process for a set of environmentally beneficial restoration project types (listed in Section 2.6, *Categories of Restoration Projects in the Order* of the draft PEIR) and associated measures to protect species and the environment.

Objectives

The objective of the Order is to help expedite statewide implementation of restoration projects to improve the environment and make the regulatory process efficient by interpreting state standards in a uniform manner to ensure that applicable projects are consistent with federal and state water quality laws.

Geographic Scope

The Order considers a variety of types of aquatic, riparian, wetland, and floodplain restoration projects that may take place throughout California. The State Water Board protects water quality by setting statewide policy, and coordinating and supporting the Regional Boards' efforts. Nine Regional Boards conduct rulemaking and regulatory activities by basin and issue water quality control plans (basin plans). Because the Order would be administered and used primarily by the Regional Boards, the study area is defined as the nine water quality control regions (see Figure ES-2).

Figure ES-2 Study Area

Description of the Order

The categories of restoration project types included in the proposed General Order are listed below. These eligible project types are described in detail in Section 2.6, *Categories of Restoration Projects in the Proposed General Order* of the draft PEIR. An individual permitted project may incorporate one or more of these project types. Projects may conduct restoration activities such as establishment, reestablishment, rehabilitation, and/or enhancement for any of these project types:

- **Improvements to Stream Crossings and Fish Passage**—for upstream and downstream movement by fish and other species, and to improve functions of streams.
- **Removal of Small Dams, Tide Gates, Flood Gates, and Legacy Structures**—to improve fish and wildlife migration, tidal and freshwater circulation and flow, and water quality.
- **Bioengineered Bank Stabilization**—to reduce input of fine sediment, enhance aquatic and riparian habitat, and improve water quality.
- **Restoration and Enhancement of Off-Channel and Side-Channel Habitat**—to improve aquatic and riparian habitat for fish and wildlife; to restore the hydrologic, hydraulic, and biogeochemical functions and processes of streams; or both.
- **Water Conservation Projects**—to reduce low-flow stream diversions, through installation of features such as off-stream storage tanks and ponds and necessary off-channel infrastructure.
- **Floodplain Restoration**—to improve ecosystem function by creating hydrologic connections between streams and floodplains, through such measures as breaching and removal of levees, breaching and removal of berm and dike setbacks, and hydraulic reconnection and revegetation.
- **Removal of Pilings and Other In-Water Structures**—to improve water quality and aquatic habitat for fish and wildlife.
- **Removal of Nonnative Invasive Species and Revegetation with Native Plants**—to improve watershed functions, such as aquatic and riparian habitat for fish and wildlife.
- **Establishment, Restoration, and Enhancement of Tidal, Subtidal, and Freshwater Wetlands**—to create or improve wetland ecological functions.
- **Establishment, Restoration, and Enhancement of Stream and Riparian Habitat and Upslope Watershed Sites**—to create or restore the functions of streams and riparian areas, including upslope watershed sites that could contribute sediment to streams or disrupt floodplain and riparian functions.

During the Order enrollment process, the approving Water Boards will determine whether an individual restoration project is eligible for enrollment under the Order. All

projects permitted under the Order must also incorporate applicable general protection measures into their project design to ensure avoidance and minimization of impacts on sensitive resources.

Species protection measures have been included in this PEIR which include avoidance and/or minimization measures developed specifically to address individual covered species or covered species guilds, based upon unique life history and habitat requirements. Further, design guidelines have been developed to help enrollees project proponents ensure that projects are designed, during the development of their individual projects, in a manner that is appropriate and sustainable, minimizes adverse effects on aquatic habitats, maximizes the ecological benefits of the restoration, and is consistent with multiple permitting agency regulatory practices (e.g., CDFW, NMFS, USFWS). A list of general protection measures can be found in Section 2.8.2, General Protection Measures, and Appendix E of the draft PEIR. A list of species protection measures can be found in Section 2.10, Species Protection Measures, and Appendix F of the draft PEIR. See Appendix E of the draft PEIR for a detailed description of design guidelines.

Typical Construction, Operation, and Maintenance Activities and Methods

The Order does not promote construction or operation and maintenance of specific facilities or other specific physical actions by the State Water Board. The State Water Board also does not propose to construct, operate, or undertake specific physical actions following adoption of the Order. Rather, the Order is designed to permit the actions of project proponents that propose to construct habitat restoration projects in accordance with the sideboards, general protection measures, and other requirements of the Order (described in Section 2.8, *Programmatic Sideboards, General Protection Measures, and Other Requirements* of the draft PEIR).

The precise locations and detailed characteristics of potential future individual restoration projects that may be permitted under the Order are yet to be determined. Therefore, the draft PEIR focuses on reasonably foreseeable changes from implementation of the types of projects and actions that might be taken in the future consistent with the level of detail appropriate for a program-level analysis. The draft PEIR assumes that the Order is implemented and achieves the desired outcomes. Accordingly, the draft PEIR evaluates the potential impacts of the types of restoration projects that the Order would encourage and promote in the study area. Once proposals for individual restoration projects consistent with the Order are developed, the lead agencies for the individual restoration projects will evaluate whether the impacts are adequately described in the draft PEIR, or if necessary, will be evaluated in project-level CEQA documents.

Most restoration projects would involve construction activities. These construction activities, in turn, would result in most of the environmental impacts evaluated in the draft PEIR. The construction activities would be specific to each type of activity, the location of the activity, and numerous other variables related to the unique characteristics of a project.

The magnitude and characteristics of construction activities vary widely, but construction activities for restoration projects share many common features. For that reason, to help support the environmental analysis, Section 2.7.1, *Typical Construction, Operation, and Maintenance Activities*, of the draft PEIR includes a discussion of commonly encountered construction activities that can be anticipated to take place on many if not most projects permitted under the Order, including construction timing, construction materials, equipment types, and construction activities.

Construction of the project types permitted under the Order would disturb natural conditions or infrastructure. Therefore, Section 2.7.2, *Constructed Facilities (Natural and Artificial Infrastructure) and Operations and Maintenance of those Facilities*) describes the maintenance and monitoring activities necessary to support successful establishment of natural conditions and operations and maintenance activities necessary to support the functionality of constructed infrastructure.

Programmatic Sideboards, General Protection Measures, and Other Requirements

In order to qualify for coverage under the Order, projects must meet the appropriate programmatic sideboards, general protection measures, and other conditions described in the draft PEIR.

Individual restoration projects authorized through the Order should be designed, planned, and implemented in a manner that is consistent with the techniques and minimization measures presented in the guidance documents and manuals listed in Section 2.8.1, *Programmatic Sideboards,* of the draft PEIR.

Actions not guided by guidance documents or manuals that may be eligible for permitting under the Order include newer, innovative approaches to restoration design that are not yet in the guidance documents or manuals but have demonstrated success. Examples include fishway operation and maintenance, and permanent removal of summer dams and other types of small dams.

All projects permitted under the Order must incorporate applicable general protection measures to ensure avoidance and minimization of impacts to aquatic/riparian resources from construction activities. See **Appendix E** of the draft PEIR for full descriptions of these general protection measures and design guidelines.

In addition, the project proponent shall contact the approving Water Board to submit available project information and request a pre-application consultation meeting prior to submittal of the NOI. The approving Water Board may waive pre-application meeting requirement on a case-by-case basis.

General administration of the Order will be conducted by the State Water Board. The State Water Board and Regional Boards will be responsible for enrolling individual restoration projects under the Order, as applicable, within their respective jurisdictional boundaries as outlined above. The approving Water Board will have the authority to issue a Notice of Applicability (NOA).

Some project types may require additional design review and oversight by other regulatory agency staff and agency engineers, including but not limited to NMFS, USFWS, and CDFW. The aforementioned regulatory agencies may impose specific requirements for certain project types as described in 2.8.4 *Projects Requiring Oversight by Other Agencies* in the draft PEIR.

The draft PEIR also identifies activities that are prohibited under the Order in Section 2.8.5, *Activities Prohibited Under the Order*.

Design Guidelines

Project type–specific design guidelines have been developed with assistance from multiple regulatory agencies (e.g., CDFW, NMFS, USFWS) to help project proponents during the design development of their individual projects, in a manner that is appropriate and sustainable, minimizes adverse effects on aquatic habitats, and maximizes the ecological benefits of the restoration (see **Appendix E** of the draft PEIR). For example, these guidelines include designing restored streams in ways that provide fish passage and withstand probable flooding events. The project proponent may modify design approaches that do not conform with the specific guidelines, based on site-specific conditions or technological constraints or advances, or regionally accepted guidance documents.

Species Protection Measures

For purposes of this CEQA analysis, this PEIR has included a suite of species protection measures that shall be implemented by project proponents, as applicable. Applicable species protection measures are to be implemented in addition to applicable general protection measures (see **Appendix E** of the draft PEIR), when suitable habitat exists within the currently occupied range of the species and/or a species is determined to be present. Alternative measures, conditions, or technological advances to accommodate individual restoration projects may be proposed by enrollees for regulatory agency approval (NMFS, USFWS, and/or CDFW) approval. See **Appendix F** of the draft PEIR for full descriptions of these species protection measures.

Screening of Individual Restoration Projects

As described below, a screening process would be used to determine how project proponents could implement individual restoration projects under the Order and how they may use this PEIR.

At the start of the individual restoration project process (e.g., when the proponent defines the project and begins to develop restoration plans and/or engineering drawings), the project proponent would complete a series of initial screening steps. The purpose of these steps would be to determine whether the project would be eligible for coverage under the Order and to identify how to use this PEIR (see Figure 1-1).

Step 1. First, the project proponent would determine whether the individual restoration project qualifies for the General Order for Small Habitat Restoration Projects.

Would the project not exceed 5 acres or a cumulative total of 500 linear feet of streambank or coastline and qualify for the CEQA Class 33 categorical exemption (State CEQA Guidelines Section 15333)?[4]

If the answer is yes (the project meets both requirements), and as long as other requirements of the General Order for Small Habitat Restoration Projects are met, the project proponent would have the option to enroll under the General Order for Small Habitat Restoration Projects. If the proposed project does not meet the requirements for the General Order for Small Habitat Restoration Projects, the project proponent would go to the second step in the screening process.

Step 2. The second step would determine whether the restoration project meets all of the following requirements:

- Falls within the types of projects described in Section 2.6, *Categories of Restoration Projects in the Order,* of this PEIR, and is not a prohibited activity as defined in Section 2.8.5, *Activities Prohibited under the Order.*
- Proposes construction and operation and maintenance methods consistent with those described in Section 2.7, *Typical Construction, Operation, and Maintenance Methods.*
- Proposes to incorporate applicable sideboards, general protection measures, and design guidelines described in Section 2.8, *Programmatic Sideboards, General Protection Measures, and Other Requirements*.

If the individual restoration project is consistent with these requirements, the project proponent may continue to the next step in the screening process.

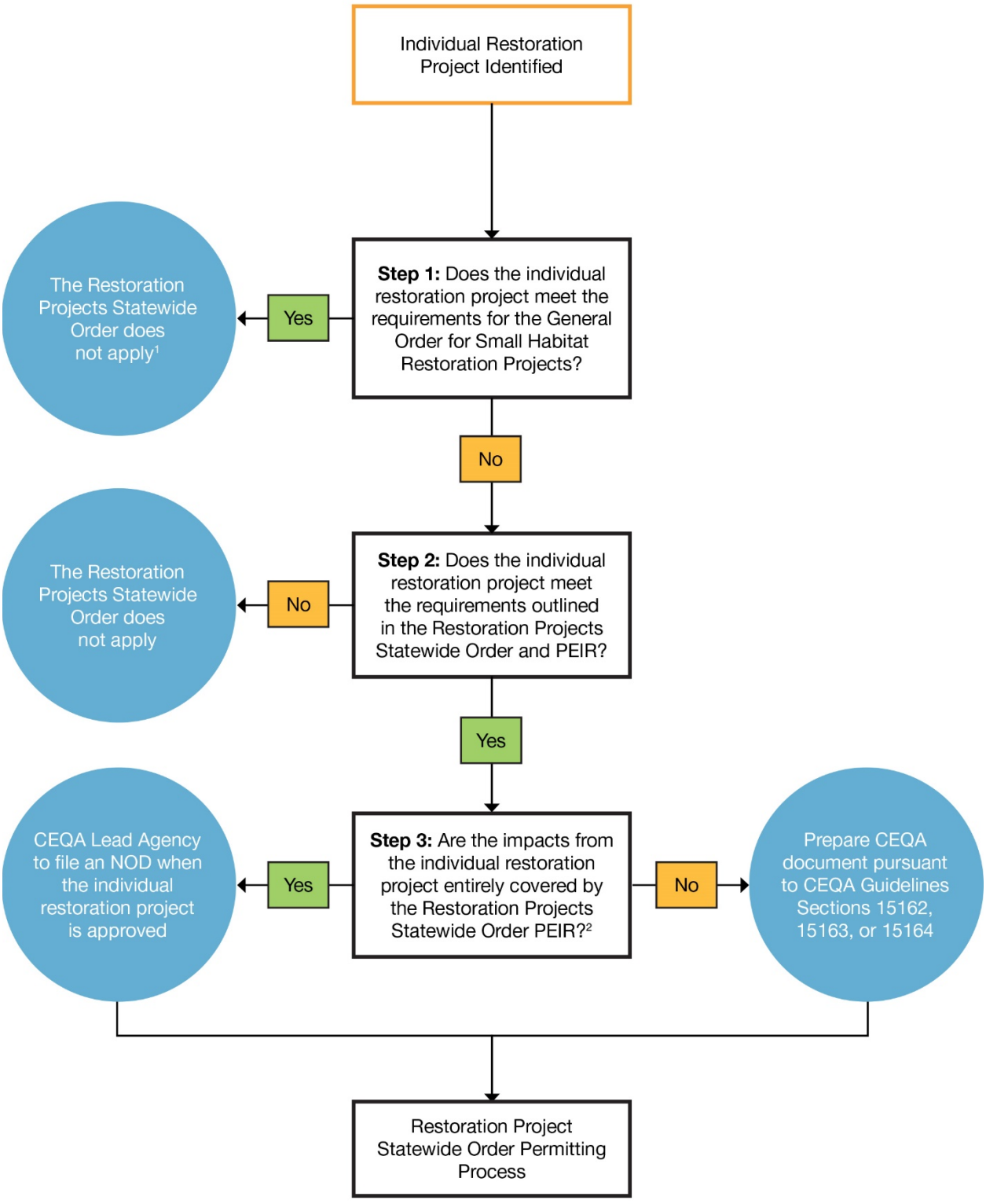
Step 3. The third step in the screening process is to determine the type of CEQA documentation needed for the individual restoration project. In accordance with State CEQA Guidelines Section 15168(c), the CEQA lead agency would examine proposed restoration activities that comply with the Order (i.e., meet the requirements listed for Step 2 of the screening process) in light of the information in this PEIR, to determine whether additional CEQA documentation must be prepared. This step is described in greater detail in Section 1.3.3, *Determining the Next Step under CEQA*, and diagrammed in Figure ES-3.

Determining the Next Step under CEQA

A party implementing an individual restoration project subject to the Order may be a public agency, as defined by State CEQA Guidelines Section 15379, or a private party. If the party implementing the restoration project is a public agency, that agency would typically be a CEQA lead agency for the project or, in some circumstances, a responsible agency (State CEQA Guidelines Sections 15367 and 15381). If the party implementing the individual restoration project is a private entity, that party would

[4] Enrollees would need to confirm specific qualification requirements with State Water Board and/or the appropriate Regional Board staff in the event the General Order for Small Habitat Restoration Projects is amended after issuance of the Order.

Figure ES-3 CEQA Flow Chart



1 Obtain coverage under the General Order for Small Habitat Restoration Projects

2 Contact the State Water Board if they will be the lead agency for the site-specific restoration project

coordinate with the public agency with principal responsibility to approve the project, as described in State CEQA Guidelines Section 15050 and 15051. Such public agencies with permitting or other approval authority related to the individual restoration project may include a Regional Board, CDFW, or a county or city, among other public agencies.

Therefore, as used in this PEIR, the term “project proponent” is defined as a public agency or private party that meets the following criteria:

- A public agency that would provide funding in whole or in part for an individual restoration project permitted under the Order.
- A public agency that proposes to carry out or otherwise approve all or some portion of an individual restoration project permitted under the Order.
- A private party that completes, carries out, or funds an individual restoration project. The private party would coordinate with the public agency with principal responsibility to approve the project, as described in State CEQA Guidelines Sections 15050 and 15051.

Any public agency proposing to carry out or approve all or some portion of an individual restoration project subject to the Order must exercise its independent judgment to determine CEQA compliance. Given this PEIR and the statewide scope of the Order, the exercise of discretion by a lead agency for an individual restoration project will be guided by State CEQA Guidelines Section 15168. Possible scenarios are described in Section 1.3.3, *Determining the Next Step under CEQA*.

Alternatives to the Proposed Project

The alternatives to the Order considered in the draft PEIR were developed based on information gathered during development of the draft Order and during the PEIR scoping process (see Section 1.4.1, *Notice of Preparation and Scoping Meeting*).

In developing the Order, a range of potential actions and other ways to meet the project objectives were considered. Various draft versions of the Order were prepared based on input received from the Regional Boards and technical experts. In addition, comments were received during scoping of the PEIR. See Appendix B for the comments received in response to the notice of preparation (NOP) of the PEIR. Three alternatives were identified for further evaluation in the draft PEIR: The No Project Alternative and two potentially feasible alternatives to the Order. Tables ES-1 and ES-2 present a summary comparison of the impact levels of the Order and alternatives when compared to the Order. See Chapter 6, *Alternatives*, in the draft PEIR for a full description of the alternatives to the Order.

Table ES-1
Comparison of Environmental Impacts of the Alternatives Compared to the Order

Issue Area Environmental Impacts	Order**	No Project Alternative	Alternative 1—More Narrow Types of Restoration Projects	Alternative 2—Eliminate Certain Aspects of Restoration Projects	Alternative 3—Exclude Entire Categories of Restoration Projects
3.2 Aesthetics	LTSM	Similar*	Similar*	Similar*	Similar*
3.3 Agriculture and Forestry Resources	SU	Similar*	Similar*	Similar*	Similar*
3.4 Air Quality and Greenhouse Gas Emissions	SU	Similar*	Similar*	Similar*	Similar*
3.5 Biological Resources – Terrestrial	SU	Similar*	Similar*	Similar*	Similar*
3.6 Biological Resources – Aquatic	LTSG	Similar*	Similar*	Similar*	Similar*
3.7 Cultural and Paleontological Resources	SU	Similar*	Similar*	Similar*	Similar*
3.8 Energy Resources	LTS	Similar*	Similar*	Similar*	Similar*
3.9 Geology and Soils	LTSM	Similar*	Similar*	Similar*	Similar*
3.10 Hazards and Hazardous Materials	SU	Similar*	Similar*	Similar*	Similar*
3.11 Hydrology and Water Quality	LTSG	Similar*	Similar*	Similar*	Similar*
3.12 Land Use and Planning	SU	Similar*	Similar*	Similar*	Similar*
3.13 Mineral Resources	LTSM	Similar*	Similar*	Similar*	Similar*
3.14 Noise	SU	Similar*	Similar*	Similar*	Similar*
3.15 Population and Housing	LTS	Similar*	Similar*	Similar*	Similar*
3.16 Recreation	LTSM	Similar*	Similar*	Similar*	Similar*
3.17 Transportation	SU	Similar*	Similar*	Similar*	Similar*
3.18 Tribal Cultural Resources	SU	Similar*	Similar*	Similar*	Similar*
3.19 Utilities and Service Systems and Public Services	SU	Similar*	Similar*	Similar*	Similar*
3.20 Wildfire	LTSM	Similar*	Similar*	Similar*	Similar*

Notes:

* The impact related to the alternative could be at a lesser magnitude than the Order, however, it is assumed the final impact conclusion (e.g. LTSM, SU, etc.) will be the similar to the Order. For example, there may be less overall construction related to the alternative, but the construction impacts related to noise, air quality, etc. could result in the same final impact conclusion as the Order.

**This finding represents the most significant finding for the issue area after mitigation

LTS: Less than significant; LTSG: Less than significant after application of General Protection Measure(s); LTSM: Less than significant after application of feasible mitigation measure(s); SU: Potentially Significant; Similar: Similar to Order.

No Project Alternative: The No Project Alternative consists of existing conditions at the time the NOP is published, and what would be reasonably expected to occur in the foreseeable future if the Order were not approved, based on current plans and consistent with available infrastructure. Restoration projects initiated by project proponents are assumed to continue to be implemented, and projects would remain

subject to the requirement to file a CWA Section 401 water quality certification and/or waste discharge requirements for each restoration project. Proponents of restoration projects would continue to obtain individual CWA Section 401 water quality certifications and/or waste discharge requirements from the State Water Board and/or Regional Boards. Therefore, the No Project Alternative considered in the draft PEIR is considered the continuation of the existing regulatory process for restoration projects that do not meet project size and CEQA eligibility requirements of the previous authorized General Order for Small Habitat Restoration Projects.

Alternative 1 – Specify More Narrowly the Types of Restoration Projects Included in the Order: This alternative would allow for larger restoration projects than specified in the Order for Small Habitat Restoration Projects, but would be more limited than the Order. Furthermore, this alternative would define the level of restoration necessary for projects to qualify for coverage, and would indicate how that level can or should be measured. This alternative differs from the Order in that restoration projects implemented by project proponents that do not meet the size constraints or certain criteria required by this alternative would not be covered under this alternative.

Alternative 2 – Eliminate Certain Aspects of Restoration Projects: This alternative would remove certain elements from the categories of restoration projects, such as the following:

- Bank stabilization projects that may depend on riprap, currently covered under the Stream and Riparian Habitat Establishment, Restoration, and Enhancement category.
- Removal, replacement, modification, retrofit, installation, or resetting of culverts, fords, bridges, and other stream crossings and water control structures of any size, currently covered under the Improvements to Stream Crossings and Fish Passage category
- Removal of small dams, currently covered under the Removal of Small Dams, Tide Gates, Flood Gates, and Legacy Structures category.

This alternative differs from the Order in that it would reduce the types or varieties of restoration projects that would be implemented under the Order.

Alternative 3 – Exclude Entire Categories of Restoration Projects: The alternative would exclude entire categories of restoration projects that would be covered under the Order. For example, under this alternative, all restoration projects associated with the Water Conservation and Floodplain Restoration categories under the Order would not be implemented. This alternative differs from the Order in that it would reduce types of restoration projects that would be implemented under the Order.

Areas of Known Controversy and Concern

The State Water Board issued a notice of preparation (NOP) on October 11, 2019, to satisfy the requirements of CEQA and the State CEQA Guidelines (see **Appendix B** of the draft PEIR).

During the NOP comment period, a public scoping meeting was held during the 43-day public NOP comment period on Thursday, October 22, 2019, at 1 p.m., at the Byron Sher Auditorium, 1001 I Street, Sacramento, CA 95814. Issues raised in the NOP comment letters (see **Appendix B** of the draft PEIR) and scoping meeting identified potential areas of controversy and concern.

The public and various government agencies have identified areas of controversy that pertain to the issues addressed by the Order. General topics raised included:

- Description of the Order evaluated in the Draft PEIR, including concerns about the scope and level of definition of the Order
- Range of alternatives to be evaluated in the Draft PEIR
- Definition of environmental and regulatory setting for the Draft PEIR analysis
- Technical resource areas that should be considered and resource-specific considerations (including, but not limited to biological, cultural, geology and soils, and hydrology)
- Guidance and suggestions for project design and evaluation criteria
- Scope of analysis in the draft PEIR, including consideration of climate change
- Noticing of, and ability for, public participation

The issues raised in these comments are addressed in this EIR, as appropriate, to the extent they pertain to compliance with CEQA.

Next Steps for the PEIR

This draft PEIR will be published and made available to federal, state, and local agencies and interested organizations and individuals who may want to review and comment on the adequacy of the analysis. Notice of this draft PEIR will be sent directly to persons, tribal groups, and agencies that commented on the NOP. The 45-day public review period for this draft PEIR is June 30, 2021, through 5:00 p.m. on August 13, 2021. During the public review period, written comments should be postmarked by August 13, 2021, and mailed or emailed to:

State Water Resources Control Board
Division of Water Quality
Attention: Jeanine Townsend, Clerk to the Board
P.O. Box 100, Sacramento, CA 95812-2000 (U.S. Mail)
1001 I Street, 15th Floor, Sacramento, CA 95814 or electronically via email to commentsletters@waterboards.ca.gov

Please use “Restoration Projects Statewide Order PEIR” in the subject line. Please include the name of a contact person if submitting comments on behalf of an agency,

tribal group, or organization. All comments received, including names and addresses, will become part of the official administrative record and may be available to the public.

The draft PEIR is available for review at the address above. The draft PEIR is also available on the State Water Board's website at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/.

During the 45-day review period, a public workshop will be held during the State Water Board Meeting scheduled for August 3, 2021 at 9:00am.

Information about the PEIR public workshop will be located on the State Water Board web site at: http://www.waterboards.ca.gov/board_info/calendar/ and the State Water Board 401 Water Quality Certification and Wetlands Program webpage at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/. Video and audio broadcast of the PEIR public workshop will be available via the internet and can be accessed at: https://video.calepa.ca.gov/.

Comments are due no later than 5:00 p.m. pacific time on August 13, 2021, which is 45 days after publication of the draft PEIR.

Summary of Environmental Impacts of the Proposed Project

The PEIR impact analysis examines all potentially significant impacts that would occur with implementation of the Order. Impacts and mitigation measures are described for the constructed facilities (natural and artificial infrastructure) and operations and maintenance of those facilities.

As discussed above, in Typical Construction, Operation, and Maintenance Activities and Methods that could result with implemented of the Order, the Order does not promote construction or operation and maintenance of specific facilities or other specific physical actions by the State Water Board. The State Water Board also does not propose to construction, operation, or undertake specific physical actions following adoption of the Order. For the purposes of ensuring a conservative analysis of environmental impacts the draft PEIR assumes that the Order is implemented and achieves the desired outcomes. Accordingly, the draft PEIR evaluates the potential impacts of the types of restoration projects that the Order would encourage and promote in the study area. Once proposals for individual restoration projects consistent with the Order are developed, the lead agencies for the individual restoration projects will evaluate whether the impacts are adequately described in this PEIR, or if necessary, will be evaluated in project-level CEQA Documents.

The impact analysis in the draft PEIR addresses constructed facilities (natural and artificial infrastructure) and operations and maintenance of those facilities. The individual restoration projects could be constructed, operated, and maintained in many different ways to meet regulatory requirements and guidelines. For this reason, a range of potential effects could result from implementation of these general types of restoration projects. However, specific project details, such as project sizes,

configurations, locations, and operations are not known at this time. For this reason, the potential effects that could result from individual restoration projects permitted under the Order are discussed to the extent feasible in a level of detail to facilitate meaningful review and informed public decision making in the broader context of the Order. Therefore, many of the significant impacts would remain significant and unavoidable.

As part of the State Water Board or Regional Board's issuance of a NOA for a restoration project under the Order, compliance with general protection measures and mitigation measures would be required when applicable to a given project. Not all general protection measures and mitigation measures would apply to all restoration projects. The applicability of the general protection measures and mitigation measures would depend on the individual restoration activities, project location, and the potentially significant impacts of the individual restoration project. Implementation of the mitigation measures would be the responsibility of the project proponent(s) under the jurisdiction of the State Water Board, appropriate Regional Board, or other authorizing regulatory agency.

For many impacts, this conclusion is very conservative. Project proponents that use the Order have a legal duty under CEQA to mitigate impacts to the extent feasible. In addition, many of the mitigation measures identified in this PEIR are standard types of mitigation, are considered to be generally feasible for most projects, and would reduce impacts to less-than-significant levels in many cases. Nevertheless, the State Water Board cannot guarantee that the mitigation measures will be adopted by the lead agencies for non-covered actions.

Potential environmental impacts of the Order and associated mitigation measures are summarized in Table ES-2.

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Table ES-2
Summary of Environmental Impacts and Mitigation Measures

Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
3.2 Aesthetics	**3.2-1:** Implementing future restoration projects permitted under the Order could result in substantial degradation of visual qualities.	LTS	LTS	**Mitigation Measure AES-1: Minimize Degradation of Visual Quality** ♦ Use compatible colors for proposed structural features, such as fish screens and storage tanks. Use earth tone paints and stains with low levels of reflectivity. ♦ Minimize the vertical profile of proposed structures as much as possible. ♦ Use vegetation plantings on proposed facility walls, such as climbing plants, espaliers, and other forms that soften the appearance of structures. ♦ Provide vegetative screening to soften views of structures. Landscaping should complement the surrounding landscape.	LTS	LTS
	3.2-2: Implementing future restoration projects permitted under the Order could result in substantial adverse effects on scenic vistas and scenic resources.	LTS	LTS	None.	LTS	LTS
	3.2-3: Implementing future restoration projects permitted under the Order could result in new sources of substantial light or glare.	PS	LTS	**Mitigation Measure AES-2: Avoid Effects of Project Lighting** Proposed lighting facilities shall use shields, and lighting shall be directed downward and inward toward the facilities.	LTSM	LTS
3.3 Agriculture and Forestry Resources	**3.3-1:** Restoration projects permitted under the Order could convert Special Designation Farmland to nonagricultural use or conflict with a Williamson Act contract or zoning for agricultural use.	LTS	PS	**Mitigation Measure AG-1: Minimize and Avoid Loss of Special Designation Farmland** The following measures shall be implemented before and during construction of restoration projects permitted under the Order to minimize and avoid loss of Special Designation Farmland, as applicable. ♦ Restoration projects shall be designed to minimize, to the greatest extent feasible, the loss of agricultural land with the highest values. ♦ Restoration projects that will result in permanent conversion of Special Designated Farmland shall preserve other Special Designation Farmland in perpetuity by acquiring an agricultural conservation easement, or by contributing funds to a land trust or other entity qualified to preserve Special Designation Farmland in perpetuity (at a target ratio of 1:1, depending on the nature of the conversion and the characteristics of the Special Designated Farmland to be converted, to compensate for the permanent loss). Based upon the cost and availability of farmland, whether the landowner is sponsoring the project, and other factors, the CEQA lead agency for the individual restoration project should consider whether a 1:1 ratio is appropriate and feasible on a case-by-case basis. For example, contributions to a program such as the California Farmland Conservancy Program, which establishes conservation easements to preserve existing farmland in California, may be prohibitively expensive at a 1:1 ratio where there is a significant amount of affected Special Designated Farmland because it is based on a farm real estate average value per acre. For example, the farm real estate average value per acre in 2019 was $10,000 [USDA 2019]. ♦ Restoration project features shall be designed to minimize fragmentation or isolation of Special Designation Farmland. Where a project involves acquiring land or easements, the remaining nonproject area shall be 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. ♦ Any utility or infrastructure serving agricultural uses shall be reconnected if it is 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. ♦ Where applicable to a project site, buffer areas shall be established between restoration projects and adjacent agricultural land. The buffers shall be sufficient to protect and maintain land capability and flexibility in agricultural operations. Buffers shall be designed to protect the feasibility of ongoing agricultural operations and reduce the effects of construction-related or operational activities (including the potential to introduce special-status species in the agricultural areas) on adjacent or nearby properties. Buffers shall also serve to protect restoration areas from noise, dust, and the application of agricultural chemicals. The width of each 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.	LTS	SU

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Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
3.3 Agriculture and Forestry Resources (cont.)	3.3-1 (cont.)			**Mitigation Measure AG-2: Minimize Impacts on Lands Protected by Agricultural Zoning or Williamson Act Contract** Restoration projects shall be designed 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. **Mitigation Measure GEO-6: Implement Measures for Waterway Construction Activities** See Section 3.9.4, *Impacts and Mitigation Measures*, in Section 3.9, Geology and Soils.		
	3.3-2: Restoration projects permitted under the Order could conflict with existing zoning for forestland, timberland, or timberland zoned Timberland Production, or could result in the loss of forestland from conversion of land to non-forest use.	LTS	LTS	None.	LTS	LTS
	3.3-3: Restoration projects permitted under the Order could involve other changes in the existing environment that, because of their location or nature, could indirectly result in the conversion of Special Designation Farmland to nonagricultural use or conversion of forestland to non-forest use.	PS	LTS	See Section 3.3.4, *Impacts and Mitigation Measures*, in Section 3.3, Agriculture and Forestry Resources, and Appendix E for applicable general protection measures.	LTSG	LTSG
3.4 Air Quality and Greenhouse Gas Emissions	**3.4-1:** Implementing future restoration projects permitted under the Order could conflict with an applicable air quality plan.	PS	LTS	**Mitigation Measure AIR-1: Minimize Conflicts with Applicable Air Quality Plans** Proponents of restoration projects permitted under the Order and their construction contractors shall implement the following measures to minimize conflicts between project construction and applicable air quality plans: ♦ Use equipment and vehicles that comply with CARB requirements and emission standards for on-road and off-road fleets and engines. New engines and retrofit control systems should reduce NOX and PM emissions from diesel-fueled on-road and off-road vehicles and equipment. ♦ Minimize idling times, either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure, Title 13, Section 2485 of the California Code of Regulations). Clear signage should be posted for construction workers at all entrances to the site. ♦ Maintain all equipment in proper working condition according to the manufacturer's specifications. ♦ Use electric equipment when possible. Use lower emitting alternative fuels to power vehicles and equipment where feasible. ♦ Use low–volatile organic compound (VOC) coatings and chemicals; minimize chemical use.	SU	LTS
	3.4-2: Emissions from future restoration projects permitted under the Order could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	PS	LTS	Mitigation Measure AIR-1.	SU	LTS
	3.4-3: Emissions from future restoration projects permitted under the Order could result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.	LTS	LTS	None.	LTS	LTS

Table ES-2
Summary of Environmental Impacts and Mitigation Measures

Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
3.4 Air Quality and Greenhouse Gas Emissions (cont.)	**3.4-4:** Emissions from future restoration projects permitted under the Order could expose sensitive receptors to substantial pollutant concentrations.	PS	LTS	**Mitigation Measure AIR-2: Minimize Construction Air Pollutant Emissions** Air quality analyses prepared for future restoration projects shall evaluate human health risks from potential exposures of sensitive receptors to substantial pollutant concentrations from the projects. The need for a human health risk analysis should be evaluated using approved screening tools, and discussed with the local air quality management district or air pollution control district during the preparation of the air quality analysis. If the project's health risk is determined to be significant, control measures should be implemented to reduce health risks to levels below the applicable air district threshold. Implementation of one or more of the following requirements, where feasible and appropriate, would reduce the effects of construction: ♦ Use equipment with diesel engines designed or retrofitted to minimize DPM emissions, usually through the use of catalytic particulate filters in the exhaust. ♦ Use electric equipment to eliminate local combustion emissions. ♦ Use alternative fuels, such as compressed natural gas or liquefied natural gas. If the restoration 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 shall identify individual restoration project measures to minimize emissions and ensure that airborne concentrations of the TACs of concern do not exceed regulatory or risk-based trigger levels.	SU	LTS
	3.4-5: Implementing future restoration projects permitted under the Order could result in an increase in GHG emissions that may have a significant impact on the environment.	PS	LTS	**Mitigation Measure AIR-3: Minimize GHG Emissions** Restoration projects permitted under the Order shall implement the GHG mitigation measures listed in the most recent air district guidance documents (e.g., CAPCOA 2010; BAAQMD 2011), as appropriate for the project site and conditions. Current versions of such guidance documents list the following for construction of projects: ♦ Use alternative fuels for construction equipment. ♦ Use electric and hybrid construction equipment. ♦ Limit construction equipment idling beyond regulatory requirements. ♦ Institute a heavy-duty off-road vehicle plan. ♦ Implement a construction vehicle inventory tracking system. ♦ Use local building materials for at least 10 percent of total materials. ♦ Recycle or reuse at least 50 percent of construction waste or demolition materials. In addition, the California Attorney General's Office has developed a list of measures and strategies to reduce GHG emissions at the individual project level. As appropriate, the measures can be included as design features of a restoration 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 are best management practices to consider and implement (as applicable) during design, construction, and O&M of project facilities. *Transportation and Motor Vehicles* ♦ Limit idling time for commercial vehicles, including delivery and construction vehicles. ♦ Use low- or zero-emission vehicles, including construction vehicles. ♦ Institute a heavy-duty off-road vehicle plan and a construction vehicle inventory tracking system for construction projects. ♦ Promote ridesharing. ♦ 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). ♦ Provide a shuttle service to public transit/work sites. ♦ Provide information on all options for individuals and businesses to reduce transportation-related emissions.	SU	LTS

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3.4 Air Quality and Greenhouse Gas Emissions (cont.)	3.4-5 (cont.)			*SmartWay Truck Efficiency* This strategy involves requiring existing trucks/trailers to be retrofitted with the best available "SmartWay Transport" and/or CARB-approved technology. Technologies that reduce GHG emissions from trucks 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, skirts, gap fairings, and trailer tail. Rolling resistance can be reduced using single wide tires or low-rolling resistance tires and automatic tire inflation systems on both the tractor and the trailer. *Tire Inflation Program* The strategy involves actions to ensure that vehicle tire pressure is maintained to manufacturer specifications. *Blended Cements* The strategy to reduce CO_2 emissions involves the addition of blending materials such as limestone, fly ash, natural pozzolan, and/or slag to replace some of the clinker in the production of Portland cement. *Anti-Idling Enforcement* The strategy guarantees emissions reductions as claimed by increasing compliance with anti-idling rules, thereby reducing the amount of fuel burned through unnecessary idling. Measures 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.		
	3.4-6: Implementing future restoration projects permitted under the Order could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.	PS	LTS	Mitigation Measure AIR-1 through Mitigation Measure AIR-3.	SU	LTS
3.5 Biological Resources – Terrestrial	**3.5-1:** Implementing restoration projects permitted under the Order could adversely affect habitat for special-status plant species.	PS	PS	None.	SU	SU
	3.5-2: Implementing restoration projects permitted under the Order could result in adverse direct effects on special-status wildlife species.	PS	PS	None.	SU	SU
	3.5-3: Implementing restoration projects permitted under the Order could result in adverse effects on riparian habitat or sensitive natural communities.	PS	PS	See Section 3.5.4, *Impacts and Mitigation Measures*, in Section 3.5, Biological Resources - Terrestrial, and Appendix E for applicable general protection measures.	LTSG	SU
	3.5-4: Implementing restoration projects permitted under the Order could result in adverse effects on state and federally protected wetlands through direct removal, hydrological interruption, or other means.	PS	LTS	See Section 3.5.4, *Impacts and Mitigation Measures*, in Section 3.5, Biological Resources - Terrestrial, and Appendix E for applicable general protection measures.	LTSG	LTS
	3.5-5: Implementing restoration projects permitted under the Order could interfere with the movement of native resident and migratory wildlife species.	PS	LTS	See Section 3.5.4, *Impacts and Mitigation Measures*, in Section 3.5, Biological Resources - Terrestrial, and Appendix E for applicable general protection measures.	LTSG	LTSG
	3.5-6: Implementing restoration projects permitted under the Order could conflict with local policies or ordinances protecting biological resources.	PS	PS	See Section 3.5.4, *Impacts and Mitigation Measures*, in Section 3.5, Biological Resources -Terrestrial, and Appendix E for applicable general protection measures.	LTSG	LTSG

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Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
3.5 Biological Resources – Terrestrial (cont.)	**3.5-7:** Implementing restoration projects permitted under the Order could conflict with the provisions of an adopted habitat conservation plan or natural community conservation plan.	LTS	PS	**Mitigation Measure TERR-1: Coordinate with CDFW, USFWS, and Permittees Regarding HCPs, NCCPs, and Other Conservation Plans** If the site for a restoration project permitted under the Order is within the planning area for any adopted HCP, NCCP, or similar conservation plan, the CEQA lead agency for the project shall consult with the plan permittee(s), CDFW and/or USFWS, as applicable, to identify any potential conflicts with the plan's goals, objectives, or conservation measures. As part of this consultation, the CEQA lead agency shall seek input regarding potential design features, conservation measures, or other mitigation strategies to avoid potential conflicts and achieve substantial conformance with the objectives of the HCP, NCCP, or similar conservation plan. The CEQA lead agency shall implement these elements as applicable to ensure that the restoration project conforms to applicable goals and policies set forth in the adopted conservation plan.	LTS	LTSM
3.6 Biological Resources – Aquatic	**3.6-1:** Implementing future restoration projects permitted under the proposed General Order could result in substantial adverse effects to special-status fish species directly, or indirectly through habitat modifications.	PS	PS	See Section 3.6.4, *Impacts and Mitigation Measures*, in Section 3.6, Biological Resources -Aquatic, and Appendix E for applicable general protection measures.	SU	LTSG
	3.6-2: Implementing future restoration projects permitted under the proposed General Order could result in substantial adverse direct effects on the movement of native resident or migratory fish.	LTS	B	None.	LTS	B
3.7 Cultural Resources	**3.7-1:** Implementing future restoration projects permitted under the Order could cause a substantial adverse change in the significance of a historical resource pursuant to State CEQA Guidelines Section 15064.5.	PS	PS	**Mitigation Measure CUL-1: Conduct Inventory and Significance Evaluation of Architectural Resources** Before implementation of any project permitted under the Order, the need for an inventory and significance evaluation of architectural resources in the project area shall be assessed, and, if necessary based upon the type of restoration activity conducted and potential for built features to be present or disturbed. The assessment should consist of a review of maps and aerial photos to see if existing buildings dams, levees, roads, or other built features are in the CEQA project area. If so, and the age of these features is either unknown or is known to be older than 45 years old, then an inventory and evaluation should be completed by, or under the direct supervision of, a qualified architectural historian, defined as one who meets the U.S. Secretary of the Interior's Professional Qualifications Standards for Historical History or History. This inventory and evaluation shall include the following: ♦ Map(s) and verbal description of the project CEQA Area of Potential Effects (C-APE) for cultural resources that delineates both the horizontal and vertical extents of where a project could result in impacts, including both direct and indirect, on cultural resources. ♦ A records search at the appropriate repository of the California Historical Resources Information System for the C-APE and vicinity (typically areas within 0.25 or 0.5 mile, based on setting) to acquire records on previously recorded cultural resources in the C-APE and vicinity and previous cultural resources studies conducted for the C-APE and vicinity. ♦ Background research on the history of the C-APE and vicinity for all projects determined to need additional historical architecture assessment. ♦ If, after review, features of the built environment are determined to be less than 45 years old, a summary statement of their age and references for this determination will be included in the project area description. No further analysis is necessary. ♦ If historic-era built resources are determined to likely be present, an architectural field survey of the C-APE, unless previous architectural field surveys no more than two years old have been conducted for the C-APE, in which case a new field survey is not necessary. Any architectural resources identified in the C-APE during the survey shall be recorded on the appropriate California Department of Parks and Recreation 523 forms (i.e., site record forms). ♦ An evaluation of any architectural resources identified in the C-APE for California Register eligibility (i.e., whether they qualify as historical resources, as defined in State CEQA Guidelines Section 15064.5).	SU	SU

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Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
				♦ An assessment of potential project impacts on any historical resources identified in the C-APE. This should include an analysis of whether the project's potential impacts on the historical resource would be consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties and applicable guidelines.		
3.7 Cultural Resources (cont.)	3.7-1 (cont.)			♦ A technical report meeting U.S. Secretary of the Interior's Standards for architectural history technical reporting This report will document the mitigation measures taken and any study results, and following CEQA lead agency review and approval, completes the requirements of this mitigation measure. If potentially significant impacts on historical resources are identified, an approach for reducing such impacts shall be developed before project implementation and in coordination with interested parties (e.g., historical societies, local communities). Typical measures for reducing impacts include: ♦ Modifying the project to avoid impacts on historical resources. ♦ Documentation of historical resources, to the standards of and to be included in the Historic American Building Survey, Historic American Engineering Record, or Historic American Landscapes Survey, as appropriate. As described in the above standards, the documentation shall be conducted by a qualified architectural historian, defined above, and shall include large-format photography, measured drawings, written architectural descriptions, and historical narratives. The completed documentation shall be submitted to the U.S. Library of Congress. ♦ Relocation of historical resources in conformance with the U.S. Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. ♦ Monitoring construction-related and operational vibrations at historical resources. ♦ For historical resources that are landscapes, preservation of the landscape's historic form, features, and details that have evolved over time, in conformance with the U.S. Secretary of the Interior's Guidance for the Treatment of Cultural Landscapes. ♦ Development and implementation of interpretive programs or displays, and community outreach.		
	3.7-2: Implementing future restoration projects permitted under the Order could cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines Section 15064.5.	PS	PS	**Mitigation Measure CUL-2: Conduct Inventory and Significance Evaluation of Archaeological Resources** Before implementation of any project permitted under the Order that includes ground disturbance, an archaeological records search and sensitivity assessment, inventory and significance evaluation of archaeological resources identified in the C-APE shall be conducted. The inventory and evaluation should be done by or under the direct supervision of a qualified archaeologist, defined as one who meets the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology, and shall include the following: ♦ Map(s) and verbal description of the project C-APE for cultural resources that delineates both the horizontal and vertical extents of where a project could result in impacts, including both direct and indirect, on cultural resources. ♦ A records search at the appropriate repository of the California Historical Resources Information System (CHRIS) for the C-APE and vicinity (typically areas within 0.25 or 0.5 mile, based on setting) to acquire records on previously recorded cultural resources in the C-APE and vicinity and previous cultural resources studies conducted for the C-APE and vicinity. This task can be performed by either the qualified archaeologist or the appropriate local CHRIS center staff. Outreach to the California Native American Heritage Commission, including a request of a search of the Sacred Lands File for the C-APE, to determine if any documented Native American sacred sites could be affected by the project. ♦ Consultation with California Native American Tribes pursuant to PRC Section 21080.3 to determine whether any indigenous archaeological resource or tribal cultural resources could be affected by the project. Project proponents shall submit a Sacred Lands File & Native American Contacts List Request to the Native American Heritage Commission (NAHC) at the initial stages of project development (or as early as practicable) to determine if a project would have an impact on Native American cultural resources. The project proponent shall coordinate with the approving Water Board or other CEQA lead agency, if applicable, as soon as possible whenever tribes that are traditionally and culturally affiliated to a project area are identified. Any tribe identified by the NAHC will require notification of the proposed project by the lead agency as soon as practicable during early design. Tribes will be consulted if a request is received after initial notification. Consultation will include discussion regarding project design, cultural resource survey, protocols for construction monitoring, and any other tribal concern. Construction of	SU	SU

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Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
				the project will not commence until the approving Water Board or other CEQA lead agency achieves compliance with the California Environmental Protection Agency Tribal Consultation Protocol (April 2018). ♦ If the C-APE is in or adjacent to navigable waterways, outreach to the California State Lands Commission to request a search of their Shipwrecks Database, to determine whether any submerged archaeological resources may be present in the C-APE.		
3.7 Cultural Resources (cont.)	3.7-2 (cont.)			♦ Background research on the history, including ethnography and indigenous presence, of the C-APE and vicinity. ♦ An archaeological sensitivity analysis of the C-APE based on mapped geologic formations and soils, previously recorded archaeological resources, previous archaeological studies, and Native American consultation. ♦ If an archaeological study is not warranted based on the above review, a summary of the assessment and justification of the determination will be prepared. If the CEQA lead agency agrees with the determination, no further study is needed. If a study is warranted, as a result of these archival studies and consultations, an archaeological field survey of the C-APE will be conducted. The field survey shall include, at a minimum, a pedestrian survey. If the archaeological sensitivity analysis suggests a high potential for buried archaeological resources in the C-APE, a subsurface survey shall also be conducted. If previous archaeological field surveys no more than two years old have been conducted for the C-APE, a new field survey is not necessary, unless their field methods do not conform to those required above (e.g., no subsurface survey was conducted but C-APE has high potential for buried archaeological resources). Any archaeological resources identified in the C-APE during the survey shall be recorded on the appropriate California Department of Parks and Recreation 523 forms (i.e., site record forms). ♦ An evaluation of any archaeological resources identified in the C-APE for California Register eligibility (i.e., as qualifying as historical resources, as defined in State CEQA Guidelines Section 15064.5) as well as whether they qualify as unique archaeological resources, pursuant to PRC Section 21083.2. Such evaluation may require archaeological testing (excavation), potentially including laboratory analysis, and consultation with relevant Native American representatives (for indigenous resources). ♦ An assessment of potential project impacts on any archaeological resources identified in the C-APE that qualify as historical resources (per State CEQA Guidelines Section 15064.5) and/or unique archaeological resources (per PRC Section 21083.2). This shall include an analysis of whether the project's potential impacts would materially alter a resource's physical characteristics that convey its historical significance and that justify its inclusion (or eligibility for inclusion) in the California Register or a qualified local register. ♦ A technical report meeting U.S. Secretary of the Interior's Standards for archaeological technical reporting. This report will document the mitigation measures taken and any study results, and, following CEQA lead agency review and approval, completes the requirements of this mitigation measure. If potentially significant impacts on archaeological resources that qualify as historical resources (per State CEQA Guidelines Section 15064.5) and/or unique archaeological resources (per PRC Section 21083.2) are identified, develop, before project implementation and in coordination with interested or consulting parties (e.g., Native American representatives [for indigenous resources], historical societies [for historic-era resources], local communities) an approach for reducing such impacts. If any such resources are on or in the tide and submerged lands of California, this process shall also include coordination with the California State Lands Commission. Typical measures for reducing impacts include: ♦ Modify the project to avoid impacts on resources. ♦ Plan parks, green space, or other open space to incorporate the resources. ♦ Develop and implement a detailed archaeological resources management plan to recover the scientifically consequential information from archaeological resources before any excavation at the resource's location. Treatment for most archaeological resources consists of (but is not necessarily limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the resource to be affected by the project. ♦ Develop and implement interpretive programs or displays, and conduct community outreach.		

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				Mitigation Measure CUL-3: Implement Measures to Protect Archaeological Resources during Project Construction or Operation If archaeological resources are encountered during project construction or operation of any project permitted under the Order, all activity within 100 feet of the find shall cease and the find shall be flagged for avoidance. The lead agency and a qualified archaeologist, defined as one meeting the U.S. Secretary of the Interior's Professional Qualifications Standards for Archeology, shall be immediately informed of the discovery. The qualified archaeologist shall inspect the discovery and notify the lead agency of their initial assessment. If the qualified archaeologist determines that the resource is or is potentially indigenous in origin, the lead agency shall consult with culturally affiliated California Native American Tribes to assess the find and determine whether it is potentially a tribal cultural resource.		
3.7 Cultural Resources (cont.)	3.7-2 (cont.)			If the lead agency determines, based on recommendations from the qualified archaeologist and culturally affiliated California Native American Tribes, that the resource is indigenous, that the resource may qualify as a historical resource (per State CEQA Guidelines Section 15064.5), unique archaeological resource (per PRC Section 21083.2), or tribal cultural resource (per PRC Section 21074), then the resource shall be avoided if feasible. If avoidance of an identified indigenous resource is not feasible, the lead agency shall consult with a qualified archaeologist, culturally affiliated California Native American Tribes, and other appropriate interested parties to determine treatment measures to minimize or mitigate any potential impacts on the resource pursuant to PRC Section 21083.2 and State CEQA Guidelines Section 15126.4. If any such resources are on or in the tide and submerged lands of California, this process shall also include coordination with the California State Lands Commission. Once treatment measures have been determined, the lead agency shall prepare and implement an archaeological (and/or tribal cultural) resources management plan that outlines the treatment measures for the resource. Treatment measures typically consist of the following steps: ♦ Determine whether the resource qualifies as a historical resource (per State CEQA Guidelines Section 15064.5), unique archaeological resource (per PRC Section 21083.2), or tribal cultural resource (per PRC Section 21074) through analysis that could include additional historical or ethnographic research, evaluative testing (excavation), or laboratory analysis. ♦ If it qualifies as a historical resource (per State CEQA Guidelines Section 15064.5) and/or unique archaeological resource (per PRC Section 21083.2), implement measures for avoiding or reducing impacts such as the following: ♦ Modify the project to avoid impacts on resources. ♦ Plan parks, green space, or other open space to incorporate resources. ♦ Recover the scientifically consequential information from the archaeological resource before any excavation at the resource's location. This typically consists of (but is not necessarily limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the resource to be affected by the project. ♦ Develop and implement interpretive programs or displays. ♦ If it qualifies as a tribal cultural resource (per PRC Section 21074) implement measures for avoiding or reducing impacts such as the following: ♦ Avoid and preserve the resource in place through measures that include but are not limited to the following: - Plan and construct the project to avoid the resource and protect the cultural and natural context. - Plan greenspace, parks, or other open space to incorporate the resources with culturally appropriate protection and management criteria. ♦ Treat the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, through measures that include but are not limited to the following: - Protect the cultural character and integrity of the resource. - Protect the traditional use of the resource. - Protect the confidentiality of the resource. ♦ Implement permanent conservation easements or other interests in real property, with cultural appropriate management criteria for the purposes of preserving or using the resource or place.		

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	3.7-3: Implementing future restoration projects permitted under the Order could disturb any human remains, including those interred outside of dedicated cemeteries.	PS	PS	**Mitigation Measure CUL-4: Implement Measures to Protect Human Remains during Project Construction or Operation** If human remains are encountered during construction or operation and maintenance of any project permitted under the Order, all work shall immediately halt within 100 feet of the find and the lead agency shall contact the appropriate county coroner to evaluate the remains and follow the procedures and protocols set forth in State CEQA Guidelines Section 15064.5(e)(1). If human remains encountered are on or in the tide and submerged lands of California, the lead agency shall also contact the California State Lands Commission. If the coroner determines that the remains are Native American in origin, the appropriate county shall contact the California Native American Heritage Commission, in accordance with California Health and Safety Code Section 7050.5(c) and PRC Section 5097.98. Per PRC Section 5097.98, the project's lead agency shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the lead agency has discussed and conferred, as prescribed PRC Section 5097.98, with the most likely descendants and the property owner regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.	SU	SU
3.8 Energy Resources	**3.8-1:** Implementing restoration projects permitted under the Order could result in substantial inefficient, wasteful, or unnecessary long-term consumption of energy resources or changes to hydropower generation.	LTS	LTS	None.	LTS	LTS
	3.8-2: Implementing restoration projects permitted under the Order could conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	LTS	None.	LTS	LTS
3.9 Geology and Soils	**3.9-1:** Implementing future restoration projects permitted under the Order could cause direct or indirect adverse effects on people or structures related to risk of loss, injury, or death due to a fault rupture.	PS	PS	**Mitigation Measure GEO-1: Include Geotechnical Design Recommendations** To minimize potential impacts from seismic events and the presence of adverse soil conditions, lead agencies shall ensure that geotechnical design recommendations are included in the design of facilities and construction specifications. Recommended measures to address adverse conditions shall conform to applicable design codes, guidelines, and standards. **Mitigation Measure GEO-2: Comply with the Alquist-Priolo Act** For construction in an Alquist-Priolo Earthquake Fault Zone, a determination must be made by a licensed practitioner (California Certified Engineering Geologist) that no fault traces are present within structures, such as setback levees. The standard of care for such determinations includes direct examination of potentially affected subsurface materials (soil and/or bedrock) by logging of subsurface trenches. Levee structures may also be required to have heavier reinforcement against strong ground motion, in compliance not only with California regulations but, in many cases, with additional federal regulations.	LTSM	LTSM
	3.9-2: Implementing future restoration projects permitted under the Order could directly or indirectly result in adverse effects on people or structures related to risk of loss, injury, or death due to strong seismic ground shaking.	PS	PS	**Mitigation Measure GEO-3: Conduct Individual Restoration Project Geotechnical Investigation and Report** An individual restoration projects geotechnical investigation shall be performed and a geotechnical report prepared for any restoration project that would result in potentially significant grading activities. 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 a less-than-significant level. Measures shall include but not be limited to: ♦ Removal and recompaction of existing soils susceptible to subsidence ♦ Ground improvement (such as densification by compaction or grouting, soil cementation) ♦ Reinforcement of structural components to resist deformation due to subsidence The assessment of subsidence for specific projects shall analyze the individual restoration projects potential for and severity of cyclic seismic loading. A geotechnical investigation shall also be performed by an appropriately licensed professional engineer and/or geologist to determine the presence and thickness of potentially liquefiable sands that could result in loss of	LTSM	LTSM

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Summary of Environmental Impacts and Mitigation Measures

Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
				bearing value during seismic shaking events. Project designs shall incorporate measures to mitigate potential damage to a less-than-significant level. Measures shall include but not be 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 ♦ Reinforcement of structural components to resist deformation due to liquefaction An analysis of individual restoration projects probable and credible seismic acceleration values, conducted in accordance with current applicable standards of care, shall be performed to provide for a suitable project design. Geotechnical investigations shall be performed and geotechnical reports shall be prepared 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 practice within the current standards of care for such work. **Mitigation Measure GEO-4: Adhere to International Building Code** Constructed facilities shall be required to adhere to the current approved version of the International Building Code (IBC), and to comply with the IBC for critical structures (e.g., levees).		
3.9 Geology and Soils (cont.)	**3.9-3:** Implementing future restoration projects permitted under the Order could directly or indirectly cause adverse effects on people or structures from unstable soil conditions.	PS	PS	**Mitigation Measure GEO-5: Conduct Expansive Clay Investigation** In areas where expansive clays exist, a licensed professional engineer or geologist shall perform a hydrogeological/ geotechnical investigation to identify and quantify the potential for expansion, particularly differential expansion of clayey soils caused by leakage and saturation beneath new improvements. Measures could include but are not limited to removing and recompacting problematic expansive soils, stabilizing soils, and/or reinforcing the constructed improvements to resist deformation from expansion of subsurface soils. **Mitigation Measure GEO-6: Implement Measures for Waterway Construction Activities** For projects that involve the engineered subsurface structural components (e.g., of surface impoundments, levees, bridge footings/abutments) 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, designing impermeable liner systems, designing leakage collection and recovery systems, and constructing impermeable subsurface cutoff walls. For restoration projects that could cause subsurface seepage of nuisance water onto adjacent lands, the following measures shall be implemented: ♦ Perform seepage monitoring studies by measuring the level of shallow groundwater in the adjacent soils, to evaluate baseline conditions. Continue monitoring for seepage during and after project implementation. ♦ Develop a seepage monitoring plan if subsurface seepage constitutes nuisance water on the adjacent land. ♦ If adjacent land is not usable, implement seepage control measures, such as installing subsurface agricultural drainage systems to avoid raising water levels into crop root zones. Cutoff walls and pumping wells can also be used to mitigate the occurrence of subsurface nuisance water. **Mitigation Measure GEO-7: Implement Measures for Levee Construction and Other Fill Embankment Designs** For projects that involve the construction of setback levees, surface impoundments, and other fill embankments, the project design shall place fill in accordance with state and local regulations and the prevailing standards of care for such work. Measures could include but are not limited to blending the soils most susceptible to landsliding with soils that have higher cohesion characteristics; installing 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. **Mitigation Measure GEO-8: Assess the Presence of Highly Organic Soils** For projects that would result in a significant or potentially significant risk to structures because of the presence of highly organic soils, the lead agencies shall require a geotechnical evaluation before construction to identify measures to mitigate organic soils. The following measures may be considered: ♦ Over-excavation and import of suitable fill material.	LTSM	LTSM

Table ES-2
Summary of Environmental Impacts and Mitigation Measures

Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
				♦ Structural reinforcement of constructed works to resist deformation. ♦ Construction of structural supports below the depth of highly organic soils into materials with suitable bearing strength.		
	3.9-4: Implementing future restoration projects permitted under the Order could result in substantial soil erosion or loss of topsoil.	PS	PS	See Section 3.9.4, *Impacts and Mitigation Measures*, in Section 3.9, Geology and Soils, and Appendix E for applicable general protection measures.	LTSG	LTSG
	3.9-5: Implementing future restoration projects permitted under the Order could directly or indirectly result in the loss of a unique paleontological resource or geological resource.	PS	PS	**Mitigation Measure GEO-9: Conduct a General Project-Level Analysis** Restoration projects implemented by other public proponents under the Order would be required to do a desktop search on whether the project site would be located in a paleontological sensitive unit. If the project site was determined to be located on a paleontological sensitive unit, then Mitigation Measure GEO-9 (and Mitigation Measure GEO-10, below, as applicable) would be implemented. If restoration projects implemented under the Order fall outside a paleontological sensitive unit, GEO-9 (and Mitigation Measure GEO-10, below) would be not required. During project development and project-level analysis, a paleontological resource monitoring and recovery plan shall be developed and implemented for all actions determine by the project proponent to be located on a paleontological sensitive unit. The plan shall include protocols for paleontological resources monitoring in areas where construction-related excavation would affect sediment with moderate to high paleontological sensitivity.	SU	SU
3.9 Geology and Soils (cont.)	3.9-5 (cont.)			The paleontological resource monitoring and recovery plan shall 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 the loss of scientifically significant paleontological resources is documented, then a recovery program should be implemented. **Mitigation Measure GEO-10: Conduct Worker Training** For projects that are determined to have moderate to high paleontological sensitivity, before the start of any ground-disturbing activity (e.g., excavation or clearing), a qualified paleontologist shall prepare paleontological resources sensitivity training materials for use during project worker environmental training or equivalent. This training shall be conducted by a qualified environmental trainer under the supervision of the qualified paleontologist. For restoration projects that involve construction crew phases, additional trainings shall be conducted for new construction personnel. The paleontological resource sensitivity training shall focus on the types of resources that could be encountered within the individual restoration project site and the procedures to follow if they are found. Project proponents and/or project contractors shall retain documentation demonstrating that all construction personnel attended the paleontological resource sensitivity training before the start of work on the site, and shall provide documentation to the project manager upon request.		
3.10 Hazards and Hazardous Materials	**3.10-1:** Implementing future restoration projects permitted under the Order could involve the routine transport, use, or disposal of hazardous materials that, if accidentally released, could create a hazard to the public or the environment, or that could be located within one-quarter mile of a school.	PS	LTS	See Section 3.10.4, *Impacts and Mitigation Measures*, in Section 3.9, Hazards and Hazardous Materials, and Appendix E for applicable general protection measures.	LTSG	LTS
	3.10-2: Ground-disturbing activities for construction of future restoration projects permitted under the Order could encounter previously unidentified contaminated soil and/or groundwater, potentially exposing construction workers, the public, and the environment to risks associated with hazardous materials.	PS	LTS	**Mitigation Measure HAZ-1: Prepare and Implement a Health and Safety Plan and Provide Qualified Oversight of Fill Removal Related to Earthmoving Activities** The following measures shall be implemented before and during construction of any restoration project permitted under the Order: ♦ A health and safety plan for the project shall be developed and implemented. This plan shall clearly notify all workers of the potential to encounter hazardous materials during ground-disturbing work and other construction activities. The plan shall identify proper handling and disposal procedures for contaminants expected to be on-site and shall provide maps and phone numbers for local hospitals and other emergency contacts. Construction workers shall comply with all protocols outlined in the health and safety plan throughout project implementation. ♦ Any hazardous materials being stored in the project area and not needed for construction activities shall be removed and disposed of at appropriately permitted locations before construction. A qualified professional (e.g.,	LTSM	LTS

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Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
				geologist or engineer) shall oversee fill excavation activities and work in potential project areas that contain abandoned underground storage tanks requiring removal, to properly identify any contaminated soils that may be present. Excavation of underground storage tanks must comply with county ordinances and policies. If contaminated soils are found, Mitigation Measure HAZ-2 shall be implemented. ♦ Removal of underground storage tanks associated with the restoration project shall include measures to ensure their safe transport and disposal. Remediation actions, if necessary, shall be defined in consultation with the local Regional Board and implemented during construction. **Mitigation Measure HAZ-2: Notify Appropriate Federal, State, and Local Agencies If Contaminated Soils Are Identified, and Complete Recommended Remediation Activities** The following measures shall be implemented before construction of any restoration project permitted under the Order if contaminated soils are found on the project site: ♦ The appropriate federal, state, and local agencies shall be notified if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during construction activities. Any contaminated areas shall be cleaned up in accordance with the recommendations of the Regional Board, DTSC, or other appropriate federal, state, or local regulatory agencies.		
3.10 Hazards and Hazardous Materials (cont.)	3.10-2 (cont.)			♦ A site plan shall be prepared for the remediation activities appropriate for the proposed land uses, including excavation and removal of on-site contaminated soils, and needed redistributions of clean fill material on the study area. The plan shall include measures to ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site. If ground-disturbing activities encounter contaminated groundwater, the construction contractor shall report the contamination to the appropriate agencies, dewater the area, and treat the groundwater to remove the contaminants before discharge into the sanitary sewer system. The construction contractor shall comply with the plan and applicable federal, state, and local laws. The plan shall outline specific procedures for handling and reporting of hazardous materials, and for disposing of hazardous materials removed from the site at an appropriate off-site facility. **Mitigation Measure HAZ-3: Notify Appropriate Federal, State, and Local Agencies If Accidental Discharges of Hazardous Materials** **Following an accidental discharge of a reportable quantity of a hazardous material or an unknown material, the appropriate federal, state, and local agencies shall be notified. Any contaminated areas shall be cleaned up in accordance with the recommendations of the Regional Board, DTSC, or other appropriate federal, state, or local regulatory agencies.**		
3.10-3: Future restoration projects permitted under the Order could be implemented within 2 miles of an airport, resulting in a safety hazard.	PS	PS	**Mitigation Measure HAZ-4: Establish Airport Operation Area Buffer Zones** Restoration projects permitted under the Order shall avoid creating hazardous wildlife attractants within a distance of 10,000 feet of a designated Airport Operations Area.	SU	SU
3.10-4: Implementing future restoration projects permitted under the Order could interfere with emergency response access or with an adopted emergency response or evacuation plan.	PS	LTS	**Mitigation Measure HAZ-5: Coordinate with Applicable Federal, State, and Local Agencies and Districts** Before construction, project proponents implementing restoration projects permitted under the Order shall coordinate with the appropriate federal, state, and local government agencies, districts, and emergency response agencies regarding the timing of construction projects that would occur near the project sites. Specific measures to mitigate potentially significant impacts shall be determined during the interagency coordination, and shall include measures to achieve the following performance standards: ♦ Reduce potential traffic impacts so that no more than 30 trucks per hour will be added to any road (e.g., by scheduling construction truck trips and designating alternate haul routes to disperse truck trips). ♦ Reduce potential traffic safety impacts (e.g., by employing flaggers to manage traffic flow at conflict locations). ♦ Provide outreach and community noticing (e.g., via the web, utility bill inserts, and other methods) for locations where multiple projects will create construction traffic simultaneously.	LTSM	LTS
3.10-5: Implementing future restoration projects permitted under the Order could expose people or structures, either directly or	PS	PS	Mitigation Measure FIRE-1: Develop and Implement a Fire Prevention Plan See Section 3.20.4, *Impacts and Mitigation Measures*, in Section 3.20, Wildfire.	LTSM	LTSM

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Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
	indirectly, to a significant loss, injury, or death due to wildland fires.					
	3.10-6: Implementing future restoration projects permitted under the Order could create vector habitat that would pose a significant public health hazard.	PS	PS	**Mitigation Measure HAZ-6: Prepare and Implement a Vector Management Plan** The following measures shall be implemented by restoration projects permitted under the Order to prevent public health hazards posed by vector habitat as applicable (e.g. restoration projects that result in standing water and are located near populated areas): ♦ Freshwater habitat management shall include management of water control structures, vegetation management, mosquito predator management, drainage improvements, and other best management practices. The agency implementing the restoration project shall coordinate with the California Department of Fish and Wildlife and local mosquito and vector control agencies regarding these strategies and specific techniques to help minimize mosquito production. ♦ Permanent ponds shall be maintained to increase the diversity of waterfowl yet decrease the introduction of vectors through constant circulation of water, vegetation control, and periodic draining of ponds. ♦ The project shall avoid ponding in tidal marsh habitat or in areas within the waterside of setback levees. Restoration projects shall be designed with methods to reduce mosquito breeding.	LTSM	LTSM
3.11 Hydrology and Water Quality	**3.11-1:** Implementing restoration projects permitted under the Order could result in the release of pollutants into surface water and/or groundwater that could violate water quality standards or waste discharge requirements, substantially degrade water quality, or obstruct implementation of a water quality control plan.	PS	PS	See Section 3.11.4, *Impacts and Mitigation Measures*, in Section 3.11, Hydrology and Water Quality, and Appendix E for applicable general protection measures.	LTSG	LTSG
	3.11-2: Implementing restoration projects permitted under the Order could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that a project may impede sustainable groundwater management of the basin or obstruct implementation of a sustainable groundwater management plan.	LTS	LTS	None.	LTS	LTS
	3.11-3: Implementing restoration projects permitted under the Order could substantially alter the existing drainage pattern of a site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner that could substantially increase the rate of runoff; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems; or impede or redirect flood flows.	LTS	LTS	None.	LTS	LTS
3.12 Land Use and Planning	3.12-1: Restoration projects permitted under the proposed General Order could conflict with a land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect.	LTS	SU	None.	LTS	SU

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Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
	3.12-2: Implementing restoration projects permitted under the proposed General Order could physically divide an established community.	LTS	SU	None.	LTS	SU
3.13 Mineral Resources	**3.13-1:** Implementing restoration projects permitted under the Order could result in the loss of availability of a known mineral resource.	PS	PS	**Mitigation Measure MIN-1: Minimize Potential Impacts from Loss of a Known Mineral Resource** The following measures shall be implemented during construction of restoration projects permitted under the Order: ♦ Project proponents shall ensure land use compatibility between existing mineral resource extraction activities and restoration projects. ♦ An adequate buffer (to be determined on an individual project basis in coordination with appropriate regulatory agencies) shall be maintained between future projects and designated MRZ-2 sectors. ♦ Project proponents shall ensure that future land use changes in designated mineral resource extraction areas recognize mineral resource extraction as a compatible use. ♦ The use of construction aggregate shall be limited to local sources with sufficient capacity to meet the needs of both restoration projects and future local development, to the extent possible. ♦ Project construction shall use recycled aggregate where possible, to decrease the demand for new aggregate.	LTSM	LTSM
	3.13-2: Implementing restoration projects permitted under the Order could result in the loss of availability of a locally important mineral resource recovery site.	PS	PS	**Mitigation Measure MIN-2: Minimize Potential Impacts from the Loss of a Locally-Important Mineral Resource Recovery Site** The following measures shall be implemented during and after construction of restoration projects permitted under the Order: ♦ Access to existing, active mineral resource extraction sites that have been identified in local general plans, specific plans, or other land use plans shall be maintained both during and after project construction. ♦ Projects shall implement the most current recommendations identified in the California Department of Conservation (DOC) Geologic Energy Management Division (formerly Division of Oil, Gas, and Geothermal Resources) construction site well review program (DOC 2007), such as: • Identify all existing natural gas well sites and oil production facilities in or near the project area. • Identify any oil or 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, Sections 1720[a][2][B] and 1720[a][2][C]). DOC requires that “critical wells” include equipment capable of meeting more stringent blowout prevention requirements than noncritical wells, based on pressure testing and ratings. • Identify safety measures to prevent unauthorized access to equipment. • Include safety shutdown devices on oil and natural gas wells and other equipment, as appropriate. • Notify DOC of new oil or natural gas wells or changes in oil or natural gas well operations or physical conditions, receive written approval of the changes from DOC, and receive written notification of DOC’s inspection of new or changed equipment. The approvals will be related primarily to the ability to: - Protect all subsurface hydrocarbons and freshwater. - Protect the environment. - Use adequate blowout prevention equipment. - Use approved drilling and cementing techniques. • If any plugged/abandoned or unrecorded oil and natural gas wells are uncovered during construction, notify DOC, complete remedial well plugging actions, and avoid constructing any structures over the abandoned oil and natural gas wells. • If oil and natural gas wells are under the jurisdiction of or a lease from the State Lands Commission, provide additional plans and environmental documentation as required before modifying the oil or natural gas wells.	LTSM	LTSM

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Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
3.14 Noise	**3.14-1:** Implementing future restoration projects permitted under the Order could result in a temporary or permanent increase in ambient noise levels in excess of standards established in applicable plans and ordinances.	PS	LTS	**Mitigation Measure NOISE-1: Minimize Noise Conflicts** The following measures shall be implemented during construction of any restoration project permitted under the Order: ♦ Noise-generating activities shall follow the applicable general plan and/or noise ordinances for the jurisdiction located within the vicinity of the project. ♦ Construction equipment shall be located away from sensitive receptors, to the extent feasible, to reduce noise levels below applicable local standards. ♦ Construction equipment shall be maintained to manufacturers' recommended specifications, and all construction vehicles and equipment shall be equipped with appropriate mufflers and other approved noise-control devices. ♦ Idling of construction equipment shall be limited to the extent feasible to reduce the time that noise is emitted. ♦ An individual traffic noise analysis of identified haul routes shall be conducted and mitigation, such as reduced speed limits, shall be provided at locations where noise standards cannot be maintained for sensitive receptors. ♦ The project shall incorporate the 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. **Mitigation Measure NOISE-2: Minimize Operations and Maintenance Noise Conflicts** The following measures shall be implemented during O&M activities for any restoration project permitted under the Order: ♦ Noise-sensitive receptors in the vicinity of project activities shall be identified and projects shall be designed to minimize exposure of sensitive receptors to long-term, operational noise sources (for example, water pumps) to reduce noise levels below applicable local standards. ♦ The hours of operation at noise generation sources near or adjacent to noise-sensitive areas shall be limited, wherever practicable, to reduce the level of exposure to meet applicable local standards.	SU	LTSM
	3.14-2: Implementing future restoration projects permitted under the Order could expose sensitive receptors to excessive groundborne vibration.	PS	PS	Mitigation Measure NOISE-1 and Mitigation Measure NOISE-2.	SU	LTSM
	3.14-3: Implementing future restoration projects permitted under the Order could expose sensitive receptors to excessive groundborne noise levels.	PS	LTS	Mitigation Measure NOISE-1 and Mitigation Measure NOISE-2.	SU	LTSM
	3.14-4: Implementing future restoration projects permitted under the Order that are located within the vicinity of a private airstrip, an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, could expose people residing or working in the project area to excessive noise levels.	PS	LTS	**Mitigation Measure NOISE-3: Prepare Preconstruction Safety Plans** To reduce potential impacts on people residing or working in the vicinity of a private airstrip, an airport land use plan, or where such a plan has not been adopted within 2 miles of a public airport or public use airport, construction contracts shall include requirements for the contractor to prepare a construction safety plan. The plan shall be developed before construction activities begin, in collaboration with aviation base personnel, to coordinate construction activities including a schedule, coordination of personnel with aviation radios, and notice requirements. Furthermore, the contractor shall coordinate with emergency service personnel.	LTSM	LTS
3.15 Population and Housing	**3.15-1:** Implementing restoration projects permitted under the Order could require relocation by construction and operation crews, resulting in population growth and demand for housing.	LTS	LTS	None.	LTS	LTS

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Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
3.15 Population and Housing (cont.)	**3.15-2:** Implementing restoration projects permitted under the Order may displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere.	LTS	LTS	None.	LTS	LTS
3.16 Recreation	**3.16-1:** Implementing future restoration projects permitted under the Order could directly impair, degrade, or eliminate recreational resources, facilities, and opportunities.	LTS	PS	**Mitigation Measure REC-1: Minimize Impairment, Degradation, or Elimination of Recreational Resources** If restoration projects permitted under the General Order result in the substantial impairment, degradation, or elimination of recreational facilities, replacement facilities of equal capacity and quality shall be developed and installed.	LTS	LTSM
	3.16-2: Future restoration projects permitted under the Order could alter recreational resources or facilities or require the construction or expansion of recreational facilities that could result in environmental impacts.	PS	PS	Mitigation Measure REC-1 and Mitigation Measure NOISE-2.	LTSM	LTSM
	3.16-3: Implementing future restoration projects permitted under the Order could increase the use of existing recreational resources and facilities such that substantial physical deterioration would occur or be accelerated.	PS	PS	**Mitigation Measure REC-2: Minimize Impacts on Existing Recreational Resources** If a restoration project results in substantial temporary or permanent impairment, degradation, or elimination of recreational facilities that causes users to be directed toward other existing facilities, the project proponent shall coordinate with affected public and private recreation providers to direct the displaced users to underused recreational facilities. The project proponent shall conduct additional operations and maintenance work at existing facilities to prevent them from deteriorating. If possible, temporary replacement facilities shall be provided. If the increase in use is temporary, once use levels have decreased back to existing conditions, the degraded facilities shall be rehabilitated or restored. Where impacts on existing facilities are unavoidable, the project proponent shall compensate for impacts through mitigation, restoration, or preservation off-site or creation of additional permanent new replacement facilities.	LTSM	LTSM
3.17 Transportation	**3.17-1:** Future restoration projects permitted under the Order could conflict with a plan, ordinance, or policy addressing the circulation system including transit, roadways, bicycle, and pedestrian facilities.	PS	LTS	**Mitigation Measure TRA-1: Prepare Construction Traffic Management Plan** Before construction begins, the construction manager shall have a qualified professional prepare a construction traffic management plan. The plan shall provide the appropriate measures to reduce potential traffic obstructions or service level degradation at affected traffic facilities. The scope of the construction traffic management plan will depend on the type, size, and duration of the specific qualifying restoration project under the Order. The plan could include such measures as construction signage, flaggers for lane closures, and construction schedule and/or delivery schedule restrictions. The plan shall be submitted to the local public works department and implemented as appropriate throughout construction. **Mitigation Measure TRA-2: Prepare Waterway Traffic Control Plan** A waterway traffic control plan shall be prepared before project construction begins. The plan shall be followed throughout construction to ensure that vessels can navigate safely and efficiently during construction. The plan shall identify vessel traffic control measures to reduce congestion and navigation hazards to the extent feasible. Construction zones in waterways shall be barricaded or guarded by readily visible barriers or other effective measures to warn boaters of their presence and restricted access. Warning devices and signage shall comply with the California Uniform State Waterway Marking System and shall be operational during nighttime hours and periods of dense fog. **Mitigation Measure TRA-3: Develop Channel Closure Plan for Affected Facilities** Before construction begins in areas where temporary partial waterway closure is necessary, a temporary channel closure plan shall be developed. The plan shall identify alternative detour routes and procedures for notifying boaters of construction activities and partial closures including coordination with the U.S. Coast Guard, local boating organizations, and marinas. The channel closure plan shall be implemented as appropriate throughout construction.	LTSM	LTS

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Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
3.17 Transportation (cont.)	3.17-1 (cont.)			**Mitigation Measure TRA-4: Reduce Project Effects on Boat Passage and Transit Facilities** To the extent feasible, the following actions shall be implemented to reduce impacts of project construction on boat passage and transit facilities: ♦ To the extent feasible, ensure that safe boat access to public launch and docking facilities, businesses, and residencies is maintained. ♦ Coordinate with transit system operators, as appropriate, to establish alternative transit system routes to be rerouted during construction. ♦ Provide boat passage as an integral component of operable gate facilities, and design such facilities to provide uninterrupted boat passage when the gates are in the "up" position. Floating docks with mooring bits shall be provided along the shoreline on both sides of the boat passage facilities for boaters to use while waiting. ♦ Before construction begins in areas where bridge closure may be necessary, develop a traffic plan that identifies traffic control measures to reduce congestion and provide alternative routes. **Mitigation Measure TRA-5: Minimize Effects on Trails and Bicycle and Pedestrian Circulation and Identify Alternatives** To minimize potential impacts of project construction on trails and bicycle and pedestrian circulation, the following actions shall be taken when feasible: ♦ Minimize closure of paths. ♦ Provide for temporary or permanent relocation of the trails and bicycle pedestrian circulation locations to the extent feasible. ♦ Consult with the appropriate public works department to determine the most feasible alignment for facility relocation.		
	3.17-2: Future restoration projects permitted under the Order could conflict with or be inconsistent with State CEQA Guidelines Section 15064.3(b).	PS	LTS	**Mitigation Measure TRA-6: Reduce Emissions** To comply with State CEQA Guidelines Section 15064.3(b), the following measures shall be taken to reduce effects associated with increased vehicle miles traveled: ♦ Limit idling time for commercial vehicles, including delivery and construction activities. ♦ Use low- or zero-emissions vehicles, including construction vehicles. ♦ Institute a heavy-duty off-road vehicle plan and a construction vehicle inventory tracking system for construction projects. ♦ Promote ridesharing. ♦ Provide the necessary facilities and infrastructure to encourage the use of low- or zero-carbon emissions vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations). ♦ Increase the cost of driving and parking private vehicles, such as by imposing tolls and parking fees. ♦ Provide a shuttle service to public transit and worksites. ♦ Provide information on all options for individuals and businesses to reduce transportation-related emissions.	SU	LTS
	3.17-3: Implementing future restoration projects permitted under the Order could substantially increase hazards due to a geometric design feature or incompatible uses.	PS	PS	**Mitigation Measure TRA-7: Conduct Routine Inspections** An inspection and operation plan shall be developed and implemented, where applicable. The plan shall include procedures for routine inspections and facility operation to allow safe navigation should the facility become damaged or malfunctions. This plan shall include the following specific components: ♦ Routine inspections and correction procedures to ensure that facility safety features are in good working order. ♦ Routine inspections and correction procedures for navigational hazards around facilities, including floating or submerged debris and the formation of shoals. **Mitigation Measure TRA-8: Repair Damaged Roadways and Trails Following Construction** If damage to roads, sidewalks, trails, and/or medians occur, the construction contractor shall coordinate with the affected project proponents to ensure that any impacts are adequately repaired in accordance with applicable agency standards. Roads and/or driveways disturbed by construction activities or construction vehicles shall be properly restored to ensure	LTSM	LTSM

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Summary of Environmental Impacts and Mitigation Measures

Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
				long-term protection of road surfaces. Roadside drainage structures and road drainage features (e.g., rolling dips) shall be protected by regrading and reconstructing roads to drain properly. The construction contractor shall work with the applicable agencies to document preconstruction conditions of road features before the start of construction.		
3.18 Tribal Cultural Resources	**3.18-1:** Implementing future restoration projects permitted under the Order could cause a substantial adverse change in the significance of a tribal cultural resource, as defined in PRC Section 21074.	PS	PS	Mitigation Measure CUL-2 through Mitigation Measure CUL-4.	SU	SU
3.19 Utilities and Service Systems and Public Services	**3.19-1:** Implementing future restoration projects permitted under the Order could require or result in the construction or relocation of new water or expanded water, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	PS	LTS	None.	SU	LTS
	3.19-2: Implementing future restoration projects permitted under the Order could result in insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LTS	LTS	None.	LTS	LTS
	3.19-3: Future restoration projects permitted under the Order could be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and could fail to comply with federal, state, and local statutes and regulations related to solid waste.	LTS	LTS	None.	LTS	LTS
	3.19-4: Implementing future restoration projects permitted under the Order could result in substantial adverse physical impacts associated with construction of new or modified fire protection, police protection, schools, and other public facilities.	LTS	LTS	None.	LTS	LTS

Table ES-2
Summary of Environmental Impacts and Mitigation Measures

Issue Area	Impact Statement	LOS Prior to Mitigation Construction	LOS Prior to Mitigation Constructed Facilities and Operations and Maintenance	Mitigation	LOS After Mitigation Construction	LOS After Mitigation Constructed Facilities and Operations and Maintenance
3.20 Wildfire	**3.20-1:** Implementing restoration projects permitted under the Order could exacerbate fire risk.	PS	PS	**Mitigation Measure FIRE-1: Develop and Implement a Fire Prevention Plan** The following measures shall be implemented before and during construction of restoration projects permitted under the Order, where applicable: ♦ For restoration projects in areas designated as Very High or High Fire Hazard Severity Zones, a project-specific fire prevention plan for construction and operation of the project shall be prepared and submitted to the CEQA lead agency for review before the start of construction. ♦ The draft copy of the fire prevention plan shall be provided to each fire agency (e.g., CAL FIRE and county or local municipal fire agencies) before the start of any construction activities in areas designated as Very High or High Fire Hazard Severity Zones.	LTSM	LTSM
	3.20-2: Implementing restoration projects permitted under the Order could result in downslope or downstream risks as a result of runoff, post-fire slope instability, or drainage changes.	PS	PS	Mitigation Measure FIRE-1.	LTSM	LTSM

Notes:
B: Beneficial; LOS: Level of Service; LTS: Less than Significant; LTSM: Less than Significant with Implementation of Mitigation Measures; LTSG: Less than Significant with Implementation of General Protection Measures; PS: Potentially Significant; SU: Significant and Unavoidable