

STATE WATER RESOURCES CONTROL BOARD STATEWIDE WASTE DISCHARGE REQUIREMENTS AND CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION FOR THE STATEWIDE UTILITY WILDFIRE GENERAL ORDER

DRAFT ENVIRONMENTAL IMPACT REPORT
SCH # 2022020125

June 2024

Prepared by:
State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento, CA 95814

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

Contents

Chapter **Page**

STATE WATER RESOURCES CONTROL BOARD STATEWIDE WASTE DISCHARGE REQUIREMENTS AND CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION FOR THE STATEWIDE UTILITY WILDFIRE GENERAL ORDER 1

LIST OF ACRONYMS AND ABBREVIATIONS 1
EXECUTIVE SUMMARY 1
Introduction *1*
Project Location *1*
Project Overview *2*
Project Objectives *2*
Intended Uses and Contents of the Draft Environmental Document *3*
Summary Of Impact Analysis *3*
1.0 INTRODUCTION 1
1.1 Project Need *1*
1.2 State and Regional Water Board Permitting *1*
1.3 The Purpose of the Project *2*
1.4 The Purpose of this Environmental Impact Report *2*
1.5 Document Format *4*
2.0 PROJECT DESCRIPTION 1
2.1 Purpose *1*
2.2 Objectives *1*
2.3 Certification Term *3*
2.4 Geographic Scope *3*
2.5 Detailed Description of Project Activities *6*
2.6 General Order Requirements *12*
3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES 1
3.0.1 Approach to the Environmental Analysis *1*
3.0.2 Analysis Contents *2*
3.0.3 General Order Requirements and Mitigation Measures *4*
3.0.4 Identifying Impact Significance *5*
3.1 AESTHETICS 1
3.1.1 Introduction *2*
3.1.2 Regulatory Section *2*
3.1.3 Environmental Setting *5*
3.1.4 Impact Analysis *10*
3.2 AGRICULTURE AND FORESTRY 1
3.2.1 Introduction *2*
3.2.2 Regulatory Setting *2*
3.2.3 Environmental Setting *4*

3.2.4 Impact Analysis *6*
3.3 AIR QUALITY 1
3.3.1 Introduction *1*
3.3.2 Regulatory Setting *1*
3.3.3 Environmental Setting *7*
3.3.4 Impact Analysis *13*
3.4 BIOLOGICAL RESOURCES 1
3.4.1 Introduction *2*
3.4.2 Regulatory Setting *2*
3.4.3 Environmental Setting *14*
3.4.4 Impact Analysis *18*
3.5 CULTURAL RESOURCES 1
3.5.1 Introduction *1*
3.5.2 Regulatory Setting *1*
3.5.3 Environmental Setting *7*
3.5.4 Impacts Analysis *11*
3.6 ENERGY 1
3.6.1 Introduction *1*
3.6.2 Regulatory Setting *1*
3.6.3 Environmental Setting *6*
3.6.4 Impact Analysis *7*
3.7 GEOLOGY AND SOILS 1
3.7.1 Introduction *2*
3.7.2 Regulatory Setting *3*
3.7.3 Environmental Setting *5*
3.7.4 Impact Analysis *15*
3.8 GREENHOUSE GAS EMISSIONS 1
3.8.1 Introduction *1*
3.8.2 Regulatory Setting *1*
3.8.3 Environmental Setting *7*
3.8.4 Impact Analysis *9*
3.9 HAZARDS AND HAZARDOUS MATERIALS 1
3.9.1 Introduction *2*
3.9.2 Regulatory Setting *2*
3.9.3 Environmental Setting *8*
3.9.4 Impact Analysis *12*
3.10 HYDROLOGY AND WATER QUALITY 1
3.10.1 Introduction *2*
3.10.2 Regulatory Setting *2*
3.10.3 Environmental Setting *8*
3.10.4 Impact Analysis *16*
3.11 LAND USE AND PLANNING 1

3.11.1 Introduction *1*
3.11.2 Regulatory Setting *1*
3.11.3 Environmental Setting *5*
3.11.4 Impact Analysis *6*
3.12 MINERAL RESOURCES 1
3.12.1 Introduction *1*
3.12.2 Regulatory Setting *1*
3.12.3 Environmental Setting *3*
3.12.4 Impacts Analysis *3*
3.13 NOISE 1
3.13.1 Introduction *1*
3.13.2 Regulatory Setting *2*
3.13.3 Environmental Setting *3*
3.13.4 Impact Analysis *8*
3.14 POPULATION AND HOUSING 1
3.14.1 Introduction *1*
3.14.2 Regulatory Setting *1*
3.14.3 Environmental Setting *3*
3.14.4 Impact Analysis *4*
3.15 PUBLIC SERVICES 1
3.15.1 Introduction *1*
3.15.2 Regulatory Setting *1*
3.15.3 Environmental Setting *6*
3.15.4 Impact Analysis *7*
3.16 RECREATION 1
3.16.1 Introduction *1*
3.16.2 Regulatory Setting *1*
3.16.3 Environmental Setting *4*
3.16.4 Impact Analysis *8*
3.17 TRANSPORTATION 1
3.17.1 Introduction *1*
3.17.2 Regulatory Setting *1*
3.17.3 Environmental Setting *3*
3.17.4 Impact Analysis *6*
3.18 TRIBAL CULTURAL RESOURCES 1
3.18.1 Introduction *2*
3.18.2 Regulatory Setting *2*
3.18.3 Environmental Setting *6*
3.18.4 Impact Analysis *7*
3.19 UTILITIES AND SERVICE SYSTEMS 1
3.19.1 Introduction *2*
3.19.2 Regulatory Setting *2*

3.19.3 Environmental Setting *7*
3.19.4 Impact Analysis *11*
3.20 WILDFIRE 1
3.20.1 Introduction *2*
3.20.2 Regulatory Settings *2*
3.20.3 Environmental Setting *8*
3.20.4 Impact Analysis *11*
4.0 OTHER CEQA CONSIDERATIONS 1
4.1 Overview *1*
4.2 Cumulative Impacts *1*
4.3 Growth-Inducing Impacts *24*
4.4 Significant Irreversible Environmental Changes *24*
5.0 ALTERNATIVES ANALYSIS 1
5.1 Introduction *1*
5.2 Alternatives Considered *2*
5.3 Environmentally Superior Alternative *6*
6.0 REFERENCES 1
6.1 Aesthetics *1*
6.2 Agriculture and Forestry Resources *1*
6.3 Air Quality *1*
6.4 Biological Resources *2*
6.5 Cultural Resources *3*
6.6 Energy *4*
6.7 Geology and Soils *5*
6.8 Greenhouse Gas Emissions *6*
6.9 Hazards and Hazardous Materials *7*
6.10 Hydrology and Water Quality *7*
6.11 Land Use and Planning *8*
6.12 Mineral Resources *8*
6.13 Noise *8*
6.14 Population and Housing *9*
6.15 Public Services *9*
6.16 Recreation *9*
6.17 Transportation *10*
6.18 Tribal Cultural Resources *10*
6.19 Utilities and Service Systems *10*
6.20 Wildfire *11*
6.21 Other CEQA Considerations *13*
7.0 DOCUMENT PREPARATION 1
7.1 List of Preparers *1*
7.2 List of Reviewers *1*
7.3 Location and Custodian of Documents *1*

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym or Abbreviation	Definition
AB	Assembly Bill
BCDC	San Francisco Bay Conservation and Development Commission
BMP	Best Management Practices
CAL FIRE	California Department of Forestry and Fire Protection
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CCA	California Coastal Act
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CPUC	California Public Utilities Commission
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	Decibels
EIR	Environmental Impact Report
ESA	Endangered Species Act
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act
MPG	Miles per Gallon
NOP	Notice of Preparation
O&M	Operation and Maintenance
PRC	Public Resources Code
Regional Water Board	Regional Water Quality Control Boards
ROW	Rights-of-Way
Section 106	National Historic Preservation Act
State Water Board	State Water Resources Control Board
SWPPP	Stormwater Pollution Prevention Plan
US	United States
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildfire Service
Utility Service	Electrical corporations (as defined in the Public Utilities Code (PUC), Section 218), local publicly owned electric utilities (as defined in the PUC, Section 224.3), and electrical cooperatives (as defined in the PUC, Section 2776)
Water Boards	State Water Resource Control Board and Regional Water Quality Control Boards

WDR	waste discharge requirements
WQC	water quality certification

EXECUTIVE SUMMARY

Introduction

The State Water Resources Control Board (State Water Board) prepared this Environmental Impact Report (EIR) to evaluate environmental effects that could result from electrical corporations (as defined in the Public Utilities Code (PUC), Section 218), local publicly owned electric utilities (as defined in the PUC, Section 224.3), and electrical cooperatives (as defined in the PUC, Section 2776) (Utility Service) projects authorized under the Statewide Waste Discharge Requirements and Clean Water Act (CWA) Section 401 Water Quality Certification (WQC) for the Statewide Utility Wildfire General Order (General Order). The objectives of this General Order are to protect water quality in California, support the mandate of Senate Bill 901, streamline the permitting process for wildfire mitigation and operation and maintenance activities (i.e., Project Activities, as described Section 2.5 (Detailed Description of Project Activities)) and increase the consistency of Project Activity regulation.

The General Order would authorize the discharge of fill to waters of the United States (US) all of which are also waters of the state, resulting from Utility Service Project Activities throughout California. Under the Porter-Cologne Water Quality Control Act, the State Water Board also has authority over projects that involve discharges of dredged or fill materials into waters of the state that are not under jurisdiction of the US Army Corps of Engineers. The General Order includes waste discharge requirements (WDR) to cover impacts to non-federal waters of the state. Discharges to non-federal waters of the state are not covered under the CWA.

The State Water Board prepared this EIR in conformance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, §§ 21000 et seq.) and the CEQA Guidelines (1Cal. Code of Regs., tit. 14, §§ 15000 et seq.). The project that is subject to CEQA review is the issuance of CWA Section 401 WQC and WDR for Utility Service wildfire mitigation and operation and maintenance that could result in a discharge to waters of the state. The EIR addresses environmental impacts resulting from the issuance of the General Order and reasonably foreseeable impacts from Project Activities.

Project Location

The project encompasses the entire State of California, including portions of all nine Regional Water Quality Control Boards (Regional Water Board), where Utility Services conduct wildfire mitigation and similar operation and maintenance activities that have potential to affect waters of the state (Project Area). This EIR analyzes reasonably foreseeable impacts in the Project Area that would result from Project Activities regulated under this General Order.

Project Overview

Project Activities covered under the General Order are electrical utility operation and maintenance and wildfire mitigation activities. Specifically, as detailed in Section 2.5 (Detailed Description of Project Activities), Project Activities include:

a) vegetation management,
b) herbicide application,
c) site access development and maintenance,
d) staging areas and laydown yards,
e) pole and tower repairs or replacement,
f) substation maintenance,
g) transmission tower maintenance,
h) structural conversion,
i) line reconductoring,
j) undergrounding powerlines,
k) boardwalk repairs or replacement, and
l) electric utility infrastructure lowering, maintenance, replacement, or removal.

Under this General Order, some Project Activities are non-notifying, meaning that they are covered by the General Order without the need to file for enrollment. All other Project Activities require a Notice of Intent, which is an application for enrollment under the General Order, submitted to the appropriate Regional Water Board, or the State Water Board in cases where the project crosses multiple Regional Water Board boundaries. If the Regional Water Board determines the proposed Project Activities and application materials satisfy the General Order's enrollment criteria, the applicable Water Board would issue a Notice of Applicability. Some urgent projects may be initiated prior to the issuance of the Notice of Applicability, but in such cases, the Utility Service must provide notice to the applicable Water Board prior to project initiation. The Utility Service would be expected to comply with the General Order's permit, reporting, and monitoring conditions.

Project Objectives

This General Order intends to increase the efficiency and consistency of the State Water Board and Regional Water Board permitting of Utility Service operation and maintenance and wildfire mitigation projects, with the ultimate goal of protecting water quality. This General Order was created in support of Senate Bill 901, which mandates that electrical utility companies and electrical cooperatives implement wildfire mitigation plans to prevent, combat and respond to wildfire-causing ignitions resulting from interactions of vegetation with electrical utility infrastructure in their service territories. Consequently, the Project Activities authorized under this General Order include actions taken by Utility Services pursuant to wildfire mitigation plans.

Intended Uses and Contents of the Draft Environmental Document

This EIR is intended to serve as an informational document for the public agency decision-makers and the general public regarding the characteristics and objectives of the project, potential environmental impacts, and recommended mitigation measures that would lessen or reduce potentially significant impacts, and feasible alternatives to the project. Chapter 2 - Project Description, provides a detailed description of the project. This discussion includes information regarding the background and purpose of the project as well as Project Activities that are part of the program. Chapter 3 - Impact Analysis, describes the environmental and regulatory settings, identifies the environmental impacts of the Project Activities, and specifies mitigation measures that would lessen or reduce significant impacts to a less-than-significant level or further reduce less-than-significant impacts. Chapter 4 - Other CEQA Considerations, discusses potential growth-inducing impacts, significant unavoidable impacts on the environment, significant irreversible environmental changes, and cumulative effects on the environment. Chapter 5 - Alternatives Analysis, describes potential alternatives to the project, provides analysis of the alternatives' ability to meet project objectives, and identifies differences in the level of environmental impacts.

Summary Of Impact Analysis

The impacts of Project Activities, proposed mitigation, and significance conclusions before and after mitigation are identified in detail in Chapter 3 - Impact Analysis. Impact determinations associated with each resource section, which include the determinations: no impact, less-than-significant impact, less-than-significant impact with mitigation incorporated, and significant and unavoidable impacts. These impact determinations are summarized in the following subsections and in Table ES-1 (Overview of Impacts). The impact determinations are further discussed with applicable mitigation measures in Table ES-2 (Summary of Impacts and Mitigation Measures). Listed below are the impact determinations; resources were categorized according to their most significant impact determination (e.g., if a resource had "No Impact" and "Less-than-Significant Impact" determinations, it was grouped with "Less-than-Significant Impact").

Table ES-1: Overview of Impacts

Environmental Factor	Significant Unavoidable Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Aesthetics	X			
Agriculture/Forestry Resources			X	
Air Quality			X	
Biological Resources		X		
Cultural Resources	X			
Energy			X	
Geology/Soils		X		
Greenhouse Gas Emissions			X	
Hazards & Hazardous Materials		X		
Hydrology/Water Quality			X	
Land Use/ Planning				X
Mineral Resources				X
Noise		X		
Population/ Housing				X
Public Services				X
Recreation				X
Transportation			X	
Tribal Cultural Resources	X			
Utilities/ Service Systems			X	
Wildfire				X

Table ES-2: Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact AES-1: Would projects permitted under the General Order have a substantial adverse effect on a scenic vista?	Potentially Significant Impact	**Mitigation Measure AES-01: Reduction of Visibility of New Structures in Sensitive Landscapes** The Utility Service would design new structures (e.g., interest poles, additional hardware and equipment being added to existing poles, supporting structures and stub poles, access roads etc.) to minimize the impact on the existing visual character and quality associated in sensitive landscapes (e.g., in, along, or near national, state, or local parks, recreation areas, forest, scenic routes, vista views, or similar). To the extent feasible and consistent with safety of visible guardrails, substations and switching stations, infrastructure would be composed of a non-reflective material to help blend the surfaces in with the surroundings. Utility Services would prioritize constructing access roads in locations not visible to the public.	Significant and Unavoidable

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact AES-2: Would projects permitted under the General Order substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Potentially Significant Impact	**Mitigation Measure AES-01: Reduction of Visibility of New Structures in Sensitive Landscapes** The Utility Service would design new structures (e.g., interest poles, additional hardware and equipment being added to existing poles, supporting structures and stub poles, access roads etc.) to minimize the impact on the existing visual character and quality associated in sensitive landscapes (e.g., in, along, or near national, state, or local parks, recreation areas, forest, scenic routes, vista views, or similar). To the extent feasible and consistent with safety of visible guardrails, substations and switching stations, infrastructure would be composed of a non-reflective material to help blend the surfaces in with the surroundings. Utility Services would prioritize constructing access roads in locations not visible to the public.	Significant and Unavoidable

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact AES-3: In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Potentially Significant Impact	**Mitigation Measure AES-01: Reduction of Visibility of New Structures in Sensitive Landscapes** The Utility Service would design new structures (e.g., interest poles, additional hardware and equipment being added to existing poles, supporting structures and stub poles, access roads etc.) to minimize the impact on the existing visual character and quality associated in sensitive landscapes (e.g., in, along, or near national, state, or local parks, recreation areas, forest, scenic routes, vista views, or similar). To the extent feasible and consistent with safety of visible guardrails, substations and switching stations, infrastructure would be composed of a non-reflective material to help blend the surfaces in with the surroundings. Utility Services would prioritize constructing access roads in locations not visible to the public.	Significant and Unavoidable
Impact AES-4: Would projects permitted under the order could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less-than-Significant Impact	None	Less-than-Significant Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact AG-1: Would projects permitted under the General Order convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact	None	No Impact
Impact AG-2: Would projects permitted under the Order conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact	None	No Impact
Impact AG-3: Would projects permitted under the Order conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?	No Impact	None	No Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact AG-4: Would projects permitted under the Order result in the loss of forest land or conversion of forest land to non-forest use?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact AG-5: Would projects permitted under the Order involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	No Impact	None	No Impact
Impact AQ-1: Would projects permitted under the order conflict with or obstruct implementation of the applicable air quality plan?	Less-than-Significant Impact	None	Less-than-Significant Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact AQ-2: Would projects permitted under the order result in 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?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact AQ-3: Would projects permitted under the General Order expose sensitive receptors to substantial pollutant concentrations?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact AQ-4: Would projects permitted under the order result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact BIO-1: Would projects permitted under the General Order have a substantial adverse effect, either directly or through	Potentially Significant Impact	**Mitigation Measure BIO-1: Agency Consultation, Permitting, and Mitigation** If sensitive biological resources occur or have potential to occur in the Project Area, the Utility Service would be required to consult with the applicable regulating agency or agencies to	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS?		acquire permits, implement mitigation, and coordinate to avoid conflict with existing Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans. The regulatory agencies would likely require protocol surveys to qualify and quantify the extent of the sensitive biological resources in the Project Area. Permit conditions would likely require Utility Services to install resource-specific buffers in the Project Area prior to ground disturbance. Mitigation for Utility Services' impact to sensitive biological resources could include purchasing mitigation bank credits and/or enhancing or preserving existing populations or habitat in perpetuity. Utility Services would be required to acquire a habitat conservation plan and incidental take permit under federal ESA Section 10(a) or a federal interagency consultation for an incidental take permit under Section 7 from USFWS for impacts to federally listed species. Utility Services would be required to acquire an incidental take permit pursuant to Fish and Game Code 2081 from CDFW for impacts to state listed species. Utility Service impacts to waters of the US could require a CWA Section 404 permit from the US Army Corps and a Section 401 Water Quality Certification from the State or Regional Water Board. Project Activity impacts to aquatic resources that are only under state jurisdiction could require Utility Services acquire waste discharge requirements from the State or Regional Water Board. Project Activity impacts to streambeds and lakes could require Utility Services acquire a	

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
		Lake and Streambed Alteration Agreement from CDFW. Utility Services could be required to acquire a Coastal Development Permit from the CCC or local government managing the Local Coastal Program for Project Activities in the coastal zone. Project Activities in the Bay Area could require Utility Services acquire permits from the San Francisco Bay Conservation and Development. Utility Services would be subject to local agency regulations.	
Impact BIO-2: Would projects permitted under the General Order have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?	Potentially Significant Impact	**Mitigation Measure BIO-1: Agency Consultation, Permitting, and Mitigation** If sensitive biological resources occur or have potential to occur in the Project Area, the Utility Service would be required to consult with the applicable regulating agency or agencies to acquire permits, implement mitigation, and coordinate to avoid conflict with existing Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans. The regulatory agencies would likely require protocol surveys to qualify and quantify the extent of the sensitive biological resources in the Project Area. Permit conditions would likely require Utility Services to install resource-specific buffers in the Project Area prior to ground disturbance. Mitigation for Utility Services' impact to sensitive biological resources could include purchasing mitigation bank credits and/or enhancing or preserving existing populations or habitat in perpetuity. Utility Services would be required to acquire a habitat conservation plan and incidental take permit under federal	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
		ESA Section 10(a) or a federal interagency consultation for an incidental take permit under Section 7 from USFWS for impacts to federally listed species. Utility Services would be required to acquire an incidental take permit pursuant to Fish and Game Code 2081 from CDFW for impacts to state listed species. Utility Service impacts to waters of the US could require a CWA Section 404 permit from the US Army Corps and a Section 401 Water Quality Certification from the State or Regional Water Board. Project Activity impacts to aquatic resources that are only under state jurisdiction could require Utility Services acquire waste discharge requirements from the State or Regional Water Board. Project Activity impacts to streambeds and lakes could require Utility Services acquire a Lake and Streambed Alteration Agreement from CDFW. Utility Services could be required to acquire a Coastal Development Permit from the CCC or local government managing the Local Coastal Program for Project Activities in the coastal zone. Project Activities in the Bay Area could require Utility Services acquire permits from the San Francisco Bay Conservation and Development. Utility Services would be subject to local agency regulations.	
Impact BIO-3: Would projects permitted under the General Order have a substantial adverse effect on federally protected wetlands as defined by Section 404 of	Potentially Significant Impact	**Mitigation Measure BIO-1: Agency Consultation, Permitting, and Mitigation** If sensitive biological resources occur or have potential to occur in the Project Area, the Utility Service would be required to consult with the applicable regulating agency or agencies to acquire permits, implement mitigation, and coordinate to avoid conflict with existing Habitat Conservation Plans, Natural	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		Community Conservation Plans, or other approved local, regional, or state habitat conservation plans. The regulatory agencies would likely require protocol surveys to qualify and quantify the extent of the sensitive biological resources in the Project Area. Permit conditions would likely require Utility Services to install resource-specific buffers in the Project Area prior to ground disturbance. Mitigation for Utility Services' impact to sensitive biological resources could include purchasing mitigation bank credits and/or enhancing or preserving existing populations or habitat in perpetuity. Utility Services would be required to acquire a habitat conservation plan and incidental take permit under federal ESA Section 10(a) or a federal interagency consultation for an incidental take permit under Section 7 from USFWS for impacts to federally listed species. Utility Services would be required to acquire an incidental take permit pursuant to Fish and Game Code 2081 from CDFW for impacts to state listed species. Utility Service impacts to waters of the US could require a CWA Section 404 permit from the US Army Corps and a Section 401 Water Quality Certification from the State or Regional Water Board. Project Activity impacts to aquatic resources that are only under state jurisdiction could require Utility Services acquire waste discharge requirements from the State or Regional Water Board. Project Activity impacts to streambeds and lakes could require Utility Services acquire a Lake and Streambed Alteration Agreement from CDFW. Utility Services could be required to acquire a Coastal Development	

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
		Permit from the CCC or local government managing the Local Coastal Program for Project Activities in the coastal zone. Project Activities in the Bay Area could require Utility Services acquire permits from the San Francisco Bay Conservation and Development. Utility Services would be subject to local agency regulations.	
Impact BIO-4: Would projects permitted under the General Order interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Potentially Significant Impact	**Mitigation Measure BIO-1: Agency Consultation, Permitting, and Mitigation** If sensitive biological resources occur or have potential to occur in the Project Area, the Utility Service would be required to consult with the applicable regulating agency or agencies to acquire permits, implement mitigation, and coordinate to avoid conflict with existing Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans. The regulatory agencies would likely require protocol surveys to qualify and quantify the extent of the sensitive biological resources in the Project Area. Permit conditions would likely require Utility Services to install resource-specific buffers in the Project Area prior to ground disturbance. Mitigation for Utility Services' impact to sensitive biological resources could include purchasing mitigation bank credits and/or enhancing or preserving existing populations or habitat in perpetuity. Utility Services would be required to acquire a habitat conservation plan and incidental take permit under federal ESA Section 10(a) or a federal interagency consultation for an incidental take permit under Section 7 from USFWS for	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
		impacts to federally listed species. Utility Services would be required to acquire an incidental take permit pursuant to Fish and Game Code 2081 from CDFW for impacts to state listed species. Utility Service impacts to waters of the US could require a CWA Section 404 permit from the US Army Corps and a Section 401 Water Quality Certification from the State or Regional Water Board. Project Activity impacts to aquatic resources that are only under state jurisdiction could require Utility Services acquire waste discharge requirements from the State or Regional Water Board. Project Activity impacts to streambeds and lakes could require Utility Services acquire a Lake and Streambed Alteration Agreement from CDFW. Utility Services could be required to acquire a Coastal Development Permit from the CCC or local government managing the Local Coastal Program for Project Activities in the coastal zone. Project Activities in the Bay Area could require Utility Services acquire permits from the San Francisco Bay Conservation and Development. Utility Services would be subject to local agency regulations.	
Impact BIO-5: Would projects permitted under the General Order conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially Significant Impact	**Mitigation Measure BIO-1: Agency Consultation, Permitting, and Mitigation** If sensitive biological resources occur or have potential to occur in the Project Area, the Utility Service would be required to consult with the applicable regulating agency or agencies to acquire permits, implement mitigation, and coordinate to avoid conflict with existing Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans. The regulatory	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
		agencies would likely require protocol surveys to qualify and quantify the extent of the sensitive biological resources in the Project Area. Permit conditions would likely require Utility Services to install resource-specific buffers in the Project Area prior to ground disturbance. Mitigation for Utility Services' impact to sensitive biological resources could include purchasing mitigation bank credits and/or enhancing or preserving existing populations or habitat in perpetuity. Utility Services would be required to acquire a habitat conservation plan and incidental take permit under federal ESA Section 10(a) or a federal interagency consultation for an incidental take permit under Section 7 from USFWS for impacts to federally listed species. Utility Services would be required to acquire an incidental take permit pursuant to Fish and Game Code 2081 from CDFW for impacts to state listed species. Utility Service impacts to waters of the US could require a CWA Section 404 permit from the US Army Corps and a Section 401 Water Quality Certification from the State or Regional Water Board. Project Activity impacts to aquatic resources that are only under state jurisdiction could require Utility Services acquire waste discharge requirements from the State or Regional Water Board. Project Activity impacts to streambeds and lakes could require Utility Services acquire a Lake and Streambed Alteration Agreement from CDFW. Utility Services could be required to acquire a Coastal Development Permit from the CCC or local government managing the Local Coastal Program for Project Activities in the coastal zone.	

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
		Project Activities in the Bay Area could require Utility Services acquire permits from the San Francisco Bay Conservation and Development. Utility Services would be subject to local agency regulations.	
Impact BIO-6: Would projects permitted under the General Order conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Potentially Significant Impact	**Mitigation Measure BIO-1: Agency Consultation, Permitting, and Mitigation** If sensitive biological resources occur or have potential to occur in the Project Area, the Utility Service would be required to consult with the applicable regulating agency or agencies to acquire permits, implement mitigation, and coordinate to avoid conflict with existing Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans. The regulatory agencies would likely require protocol surveys to qualify and quantify the extent of the sensitive biological resources in the Project Area. Permit conditions would likely require Utility Services to install resource-specific buffers in the Project Area prior to ground disturbance. Mitigation for Utility Services' impact to sensitive biological resources could include purchasing mitigation bank credits and/or enhancing or preserving existing populations or habitat in perpetuity. Utility Services would be required to acquire a habitat conservation plan and incidental take permit under federal ESA Section 10(a) or a federal interagency consultation for an incidental take permit under Section 7 from USFWS for impacts to federally listed species. Utility Services would be required to acquire an incidental take permit pursuant to Fish	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
		and Game Code 2081 from CDFW for impacts to state listed species. Utility Service impacts to waters of the US could require a CWA Section 404 permit from the US Army Corps and a Section 401 Water Quality Certification from the State or Regional Water Board. Project Activity impacts to aquatic resources that are only under state jurisdiction could require Utility Services acquire waste discharge requirements from the State or Regional Water Board. Project Activity impacts to streambeds and lakes could require Utility Services acquire a Lake and Streambed Alteration Agreement from CDFW. Utility Services could be required to acquire a Coastal Development Permit from the CCC or local government managing the Local Coastal Program for Project Activities in the coastal zone. Project Activities in the Bay Area could require Utility Services acquire permits from the San Francisco Bay Conservation and Development. Utility Services would be subject to local agency regulations.	
Impact CUL-1: Would projects permitted under the General Order cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	Less-than-Significant Impact	None	Less-than-Significant Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact CUL-2: Would projects permitted under the General Order cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	Potentially Significant Impact	None	Significant and Unavoidable Potentially Significant Impact
Impact CUL-3: Would projects permitted under the General Order disturb any human remains, including those interred outside of dedicated cemeteries?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact ENG-1: Would projects permitted under the General Order result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	Less-than-Significant Impact	None	Less-than-Significant Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact ENG-2: Would projects permitted under the General Order conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact	None	No Impact
Impact GEO-1: Would projects permitted under the General Order expose people or structures to potential substantial adverse effects, including risk of loss, injury, or death involving:	--	--	--
Impact GEO-1i: Rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42?	Less-than-Significant Impact	None	Less-than-Significant Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact GEO-1ii: Strong seismic ground shaking?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact GEO-1iii: Seismic-related ground failure, including liquefaction?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact GEO-1iv: Landslides?	Potentially Significant Impact	**Mitigation Measure GEO-1: Adherence to Utility Earthwork Standards** Utility Services would conduct Project Activities in compliance with all applicable utility and earthwork regulatory standards, including those required by the California Public Utilities Commission, Institute of Electrical and Electronics Engineers 693 standards, California Building Code, and other existing federal, state, and local laws, regulations, and/or standards.	Less-than-Significant Impact with Mitigation
Impact GEO-2: Would projects permitted under the General Order directly or indirectly cause substantial soil erosion or loss of topsoil?	Potentially Significant Impact	**Mitigation Measure GEO-1: Adherence to Utility Earthwork Standards** Utility Services would conduct Project Activities in compliance with all applicable utility and earthwork regulatory standards, including those required by the California Public Utilities Commission, Institute of Electrical and Electronics Engineers 693 standards, California Building Code, and other existing federal, state, and local laws, regulations, and/or standards.	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact GEO-3: Would projects permitted under the General Order be located on a geologic unit or soil that is unstable or that would become unstable because of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Potentially Significant Impact	**Mitigation Measure GEO-1: Adherence to Utility Earthwork Standards** Utility Services would conduct Project Activities in compliance with all applicable utility and earthwork regulatory standards, including those required by the California Public Utilities Commission, Institute of Electrical and Electronics Engineers 693 standards, California Building Code, and other existing federal, state, and local laws, regulations, and/or standards.	Less-than-Significant Impact with Mitigation
Impact GEO-4: Would projects permitted under the General Order be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Potentially Significant Impact	**Mitigation Measure GEO-1: Adherence to Utility Earthwork Standards** Utility Services would conduct Project Activities in compliance with all applicable utility and earthwork regulatory standards, including those required by the California Public Utilities Commission, Institute of Electrical and Electronics Engineers 693 standards, California Building Code, and other existing federal, state, and local laws, regulations, and/or standards.	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact GEO-5: Would projects permitted under the General Order have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No Impact	None	No Impact
Impact GEO-6: Would projects permitted under the General Order directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant Impact	**Mitigation Measure GEO-2: Conduct General Project-Level Analysis for Paleontological Sensitive Units** Prior to breaking ground, Utility Services would be required to assess whether the proposed project occurs on a paleontologically sensitive unit. If the proposed project occurs on a paleontologically sensitive map unit, a qualified paleontologist will develop a paleontological resource monitoring and recovery plan. The paleontological resource monitoring and recovery plan would detail monitoring protocols for ground disturbance proposed in sediment with a moderate to high paleontological sensitivity. The monitoring and recovery plan would be designed and 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 the recovery program would be	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
		implemented. If mitigation measure GEO-2 determines the project occurs on a paleontological sensitive unit, mitigation measure GEO-3 below would also be implemented. **Mitigation Measure GEO-3: Conduct Paleontological Training to Construction Crews** If after implementing mitigation measure GEO-2, the proposed project was determined to occur in a location with moderate to high paleontological sensitivity, a qualified paleontologist shall prepare paleontological resources sensitivity training materials prior to ground disturbance for use during project worker environmental training. This training shall be conducted by an environmental professional under the supervision of the qualified paleontologist. Prior to ground disturbance, all construction personnel onsite will receive paleontological resources sensitivity training, even if they arrive after initial ground disturbance begins. The paleontological resource sensitivity training shall report the types of resources that could be encountered within the project site and the procedures to follow if they are found; if paleontological resources are detected, all work within at least 100 feet should be halted until a qualified paleontological resources specialist evaluates the item for its significance and records the item. 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.	

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact GHG-1: Would projects permitted under the General Order generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact GHG-2: Would projects permitted under the General Order conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less-than-Significant Impact	None	Less-than-Significant Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact HAZ-1: Would projects permitted under the General Order create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Potentially Significant Impact	**Mitigation Measure HAZ-1: Compliance with Applicable Laws, Regulations, and Ordinances** Utility Services would be required to comply with applicable state, federal, and local laws, regulations, and requirements pertaining to hazardous materials and hazardous wastes. Relevant regulations include the Toxic Substances Control Act, CWA, Solid Waste Disposal Act, Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act. In addition, Utility Services storing hazardous materials that meet or exceed the state thresholds (i.e., 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for gasses) are required to prepare a Hazardous Materials Management Plan; the plan would detail best management practices to minimize the effects to incidental releases, and ensure proper handling, storage, and disposal of hazardous and nonhazardous waste. These regulations establish legal requirements for hazardous materials storage, transportation and handling, and agency oversight.	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact HAZ-2: Would projects permitted under the General Order create significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Potentially Significant Impact	**Mitigation Measure HAZ-1: Compliance with Applicable Laws, Regulations, and Ordinances** Utility Services would be required to comply with applicable state, federal, and local laws, regulations, and requirements pertaining to hazardous materials and hazardous wastes. Relevant regulations include the Toxic Substances Control Act, CWA, Solid Waste Disposal Act, Resource Conservation and Recovery Act, Senate Bill 901's wildfire mitigation plan regulations, and the Comprehensive Environmental Response, Compensation, and Liability Act. In addition, Utility Services storing hazardous materials that meet or exceed the state thresholds (i.e., 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for gasses) are required to prepare a Hazardous Materials Management Plan; the plan would detail best management practices to minimize the effects to incidental releases, and ensure proper handling, storage, and disposal of hazardous and nonhazardous waste. These regulations establish legal requirements for hazardous materials storage, transportation and handling, and agency oversight.	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact HAZ-3: Would projects permitted under the General Order emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Potentially Significant Impact	**Mitigation Measure HAZ-1: Compliance with Applicable Laws, Regulations, and Ordinances** Utility Services would be required to comply with applicable state, federal, and local laws, regulations, and requirements pertaining to hazardous materials and hazardous wastes. Relevant regulations include the Toxic Substances Control Act, CWA, Solid Waste Disposal Act, Resource Conservation and Recovery Act, Senate Bill 901's wildfire mitigation plan regulations, and the Comprehensive Environmental Response, Compensation, and Liability Act. In addition, Utility Services storing hazardous materials that meet or exceed the state thresholds (i.e., 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for gasses) are required to prepare a Hazardous Materials Management Plan; the plan would detail best management practices to minimize the effects to incidental releases, and ensure proper handling, storage, and disposal of hazardous and nonhazardous waste. These regulations establish legal requirements for hazardous materials storage, transportation and handling, and agency oversight.	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact HAZ-4: Would projects permitted under the General Order be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or the environment?	Potentially Significant Impact	**Mitigation Measure HAZ-1: Compliance with Applicable Laws, Regulations, and Ordinances** Utility Services would be required to comply with applicable state, federal, and local laws, regulations, and requirements pertaining to hazardous materials and hazardous wastes. Relevant regulations include the Toxic Substances Control Act, CWA, Solid Waste Disposal Act, Resource Conservation and Recovery Act, Senate Bill 901's wildfire mitigation plan regulations, and the Comprehensive Environmental Response, Compensation, and Liability Act. In addition, Utility Services storing hazardous materials that meet or exceed the state thresholds (i.e., 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for gasses) are required to prepare a Hazardous Materials Management Plan; the plan would detail best management practices to minimize the effects to incidental releases, and ensure proper handling, storage, and disposal of hazardous and nonhazardous waste. These regulations establish legal requirements for hazardous materials storage, transportation and handling, and agency oversight.	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact HAZ-5: For a project permitted under the General Order located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project result in a safety hazard or excessive noise for people residing or working in the project area?	Potentially Significant Impact	**Mitigation Measure NOI-01: Adherence to Noise Standards and Policies per the Applicable General Plan, Noise Ordinances, or Other Agency Regulations** Noise-generating Project Activities would follow the applicable general plan, noise ordinances, and other agency or agencies regulations for the jurisdiction located within the vicinity of the project.	Less-than-Significant Impact with Mitigation
Impact HAZ-6: Would projects permitted under the General Order impair implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact HAZ-7: Would projects permitted under the General Order expose people or structures, either directly or indirectly, to a significant risk involving wildland fires?	No Impact	None	No Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact WQ-1: Would projects permitted under the General Order violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact WQ-2: Would projects permitted under the General Order substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less-than-Significant Impact	None	Less-than-Significant Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact WQ-3: Will projects permitted under the General Order substantially alter the existing drainage pattern of the 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 which will:	--	--	--
Impact WQ-3i: Result in substantial erosion or siltation on- or off-site?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact WQ-3ii: Substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or off-site?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact WQ-3iii: Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Less-than-Significant Impact	None	Less-than-Significant Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact WQ-3iv: Impede or redirect flood flows?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact WQ-4: Would projects permitted under the General Order in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact	None	No Impact
Impact WQ-5: Would projects permitted under the General Order conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact	None	No Impact
Impact LP-1: Would projects permitted under the General Order physically divide an established community?	No Impact	None	No Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact LP-2: Would projects permitted under the General Order cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact	None	No Impact
Impact MIN-1: Would projects permitted under the General Order result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact	None	No Impact
Impact MIN-2: Would projects permitted under the General Order result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	No Impact	None	No Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact NOI-1: Would projects permitted by the General Order result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Potentially Significant Impact	**Mitigation Measure NOI-01: Adherence to Noise Standards and Policies per the Applicable General Plan, Noise Ordinances, or Other Agency Regulations** Noise-generating Project Activities would follow the applicable general plan, noise ordinances, and other agency or agencies regulations for the jurisdiction located within the vicinity of the project.	Less-than-Significant Impact with Mitigation
Impact NOI-2: Would projects permitted under the General Order result in generation of excessive groundborne vibration or groundborne noise levels?	Potentially Significant Impact	**Mitigation Measure NOI-01: Adherence to Noise Standards and Policies per the Applicable General Plan, Noise Ordinances, or Other Agency Regulations** Noise-generating Project Activities would follow the applicable general plan, noise ordinances, and other agency or agencies regulations for the jurisdiction located within the vicinity of the project.	Less-than-Significant Impact with Mitigation

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact NOI-3: For projects located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would projects permitted under the General Order expose people residing or working in the project area to excessive noise levels?	Potentially Significant Impact	**Mitigation Measure NOI-01: Adherence to Noise Standards and Policies per the Applicable General Plan, Noise Ordinances, or Other Agency Regulations** Noise-generating Project Activities would follow the applicable general plan, noise ordinances, and other agency or agencies regulations for the jurisdiction located within the vicinity of the project.	Less-than-Significant Impact with Mitigation
Impact POP-1: Would projects permitted under the General Order result in substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No Impact	None	No Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact POP-2: Would projects permitted under the General Order displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere?	No Impact	None	No Impact
Impact PUB-1: Would projects permitted under the General Order result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	--	--	--

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact PUB-1i: Fire protection?	No Impact	None	No Impact
Impact PUB-1ii: Police protection?	No Impact	None	No Impact
Impact PUB-1iii: Schools?	No Impact	None	No Impact
Impact PUB-1iv: Parks?	No Impact	None	No Impact
Impact PUB-1v: Other public facilities?	No Impact	None	No Impact
Impact REC-1: Would projects permitted under the General Order increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No Impact	None	No Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact REC-2: Would projects permitted under the General Order include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No Impact	None	No Impact
Impact Trans-1: Would projects permitted under the General Order conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact Trans-2: Would projects permitted under the General Order conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	Less-than-Significant Impact	None	Less-than-Significant Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact Trans-3: Would projects permitted under the General Order substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact	None	No Impact
Impact Trans-4: Would projects permitted under the General Order result in inadequate emergency access?	No Impact	None	No Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact TCR-1: Impacts to tribal cultural resources would be considered significant if projects permitted under the General Order cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a size, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	--	--	--
Impact TCR-1i: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code § 5020.1(k);	Potentially Significant Impact	None	Significant and Unavoidable

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact TCR-1ii: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision I of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency will consider the significance of the resource to a California Native American tribe.	Potentially Significant Impact	None	Significant and Unavoidable

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact UTIL-1: Would projects permitted under the General Order require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No Impact	None	No Impact
Impact UTIL-2: Would projects permitted under the General Order have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact	None	No Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact UTIL-3: Would projects permitted under the General Order result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No Impact	None	No Impact
Impact UTIL-4: Would projects permitted under the General Order generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Less-than-Significant Impact	None	Less-than-Significant Impact
Impact UTIL-5: Would projects permitted under the General Order comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less-than-Significant Impact	None	Less-than-Significant Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact WF-1: Would the projects permitted under the General Order substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact	None	No Impact
Impact WF-2: Due to slope, prevailing winds, and other factors, would projects permitted under the General Order exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No Impact	None	No Impact
Impact WF-3: Would projects permitted under the General Order require installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No Impact	None	No Impact

Impact	Significance Before Mitigation	Mitigation Measure	Significance With Mitigation Measure Incorporated
Impact WF-4: Would projects permitted under the General Order expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No Impact	None	No Impact

1.0 INTRODUCTION

1.1 Project Need

California has had an increase in wildfire intensity and frequency in recent years due to drought, tree mortality due to pests, climate change, fuel accumulation, and fire suppression. One of the drivers of wildfire in California has been ignition sources associated with the electrical power grid. California Legislature passed Senate Bill (SB) 901 on August 31, 2018, which imposed additional requirements on wildfire mitigation plans developed by electrical corporations (as defined in the Public Utilities Code (PUC), Section 218), local publicly owned electric utilities (as defined in the PUC, Section 224.3), and electrical cooperatives (as defined in the PUC, Section 2776) (Utility Services). These plans are aimed at reducing infrastructure-related wildfire risk within High Fire Threat Districts. Activities detailed in the wildfire mitigation plans include a variety of activities including vegetation management, system hardening, pole replacement, and access road improvements. Wildfire prevention and response activities require a variety of construction activities that have the potential to impact water quality.

Anticipating an increase in the pace and scale of electric utility activities throughout the state, the State Water Resources Control Board (State Water Board) developed a general order to facilitate wildfire prevention work to reduce these risks to water quality posed by wildfires and to facilitate post-wildfire response activities that help mitigate the negative water quality impacts caused by wildfire.

1.2 State and Regional Water Board Permitting

The State Water Board and nine Regional Water Quality Control Boards (Regional Water Board; collectively, Water Boards), exercise rulemaking and regulatory activities by the respective basin, and 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 Utility Service projects through issuance of Statewide Waste Discharge Requirements (WDR) pursuant to the Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.).

The Water Boards also have regulatory authority under Clean Water Act (CWA) Section 401 to issue water quality certifications (WQCs) that certify that projects with dredge or fill discharges authorized by the United States Army Corps of Engineers under CWA Section 404, and Sections 10 and 14 of the Rivers and Harbors Act of 1899 (US Code Title 33, Section 408) will comply with certain provisions of the CWA and other requirements of state law.

Rather than issuing project specific WDRs or WQCs, the Water Boards may issue general orders to authorize certain types of similar discharges based on the proposed discharge meeting certain criteria and conditions. A general order establishes a review

process and compliance standards for similar activities and does not authorize any specific project or activity. Applicants who receive authorization for their project under a general order are called “enrollees.” General orders provide potential enrollees with advance notice of compliance expectations and complete applications are reviewed more efficiently compared to the individual WQC and WDR review process. They also contain detailed descriptions of the project purpose, the types of activities that are covered by the general order, and activities that are excluded from coverage. Additionally, they contain protection measures such as avoidance and minimization measures, or other criteria, that must be met to ensure water quality is protected from the activity.

The issuance of a general order is considered a “permit action” and may trigger the need for compliance with the California Environmental Quality Act (CEQA).

1.3 The Purpose of the Project

The Statewide Utility Wildlife General Order (General Order) would serve as WDR as well as CWA Section 401 WQC authorizations.

The Utility Wildfire General Order applies to specific electrical utility wildfire mitigation and operation and maintenance activities that may affect the quality of waters of the state; as such, the General Order establishes a notification and application submittal and review process for electrical utilities conducting the activities described in Chapter 2. The General Order contains prohibitions, specifications, and procedures for electrical utility projects to protect surface water and groundwater quality. Dischargers must also comply with notification and reporting requirements. Additional notification and compliance requirements are described in the Project Description, Chapter 2, of this Environmental Impact Report (EIR).

1.4 The Purpose of this Environmental Impact Report

An EIR must be prepared when there is substantial evidence supporting a fair argument that significant effects may result from project implementation. As the only state or local agency to take action related to the project, the State Water Board is the lead agency for this environmental document under CEQA Guidelines Sections 15050 and 15051. The EIR has been prepared in conformance with CEQA (Public Resources Code 21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations 15000 et seq.) and has been prepared to support the issuance of a Section 401 WQC and WDR for electrical utilities conducting the wildfire mitigation and operation and maintenance activities described in Section 2.5 of the Project Description throughout the state. Consistent with Section 15121(a) of the CEQA Guidelines, this EIR is a public information document that assesses and discloses potential environmental effects associated with the issuance of WQC under Section 401 of the CWA and WDR under the Porter-Cologne Water Quality Control Act for Utility Services project activities that

could discharge waste into waters of the state. Since the General Order is a permitting mechanism that does not authorize any specific activity, the EIR also analyzes the reasonably foreseeable environmental effects resulting from Utility Services wildfire mitigation and operation and maintenance activities, which could discharge to waters of the state, authorized under the General Order. The EIR also identifies mitigation measures and alternatives that would avoid or minimize identified impacts to a less-than-significant level.

This EIR is intended to serve as an informational document for the public agency decision-makers and the public regarding the characteristics and objectives of the WQC and WDR, potential environmental impacts, recommended mitigation measures, and feasible alternatives to the WQC and WDR.

According to Section 15002(a) of the CEQA Guidelines, the basic purpose of CEQA is to:

a) Inform government decision makers and the public about the potential significant environmental effects of the proposed project activities;
b) Identify ways that environmental damage can be avoided or significantly reduced;
c) Prevent significant, avoidable environmental damage by requiring changes in projects through the use of alternatives or mitigation measures when the governing agency finds the changes to be feasible; and
d) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

The process of preparing an EIR involves the following discrete steps:

a) Notice of Preparation (NOP). Prior to preparing the Draft EIR, the lead agency releases a NOP to solicit the comments of public agencies and interested organizations and individuals regarding the scope and content of the EIR. The NOP must be available for comment for at least 30 days. A NOP was distributed for this EIR on February 2, 2022. A comment letter was received from the Native Heritage Commission on February 11, 2022, discussing applicable legislation, as well as recommendations for conducting cultural resource assessments. A comment letter was also received on March 4, 2022, from a California utility working group (Southern California Edison, Pacific Gas and Electric Company, Sa Diego Gas and Electric Company, and the Los Angeles Department of Water and Power) that discussed their preference of alternatives, thresholds, and annual fees. The comments on the NOP received from agencies and the public are available upon request.

b) Scoping meeting. A scoping meeting is intended to offer an additional opportunity for input prior to preparation of the Draft EIR. A scoping meeting was conducted for public agencies and members of the public on February 18, 2022.

The State Water Board also consulted with interested Utility Services throughout the development of the General Order.

c) **Preparation and release for public review and comment of the Draft EIR.** The Draft EIR will be available for 45 days for review and comment by public agencies and interested organizations and individuals.
d) **Preparation of the Final EIR**. The Final EIR will present the comments received during the public review period, a complete list of commenters, written responses to the comments related to environmental issues, and any revisions that are made to the Draft EIR in response to the comments. The State Water Board must certify the Final EIR prior to issuing the General Order.
e) **Adoption of findings and a statement of overriding considerations.** If there are unavoidable adverse environmental effects that cannot be mitigated to a less-than-significant level, an adoption of findings and a statement of the overriding considerations must also be adopted.

1.5 Document Format

Sections 15120 through 15132 of the CEQA Guidelines identify the content requirements for EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This EIR is organized as follows:

a) **Executive Summary** presents a summary of the project description and public involvement process, a description of the areas of known controversy and issues to be resolved, a summary table listing the impacts that would result from Project Activities that could discharge fill to waters of the state, each impact's level of significance, and a summary of alternatives.
b) **Chapter 1 – Introduction** (this chapter) provides an overview of the program and CEQA requirements, and a summary of the scope, intent, and contents of the EIR.
c) **Chapter 2 – Project Description** presents an overview of the project, the location and description of Project Activities that could discharge fill to waters of the state; provides a summary of the project's purpose and objectives; and identifies anticipated permits and approvals.
d) **Chapter 3 – Environmental Setting, Impacts, and Mitigation Measures** describes the existing environmental setting, regulatory setting, and discusses the reasonably foreseeable environmental impacts of Project Activities that involve discharges of fill into waters of the state. This chapter also identifies mitigation measures and applicant-proposed measures to reduce potential impacts.

e) **Chapter 4 – Other CEQA Considerations** discusses other CEQA issues, including cumulative effects on the environment, potential growth-inducing impacts, and significant irreversible environmental changes.
f) **Chapter 5 – Alternatives Analysis** describes potential alternatives to the project, along with analyses of the alternatives' ability to meet project objectives and differences in the level of environmental impacts.
g) **Chapter 6 – References** presents the sources that have been referred to in the text.
h) **Chapter 7 – EIR Preparers** provides the names of the EIR authors, consultants, and agencies or individuals consulted during preparation of the EIR.
i) **Appendices** contain background information that supports the analysis presented in this EIR.

2.0 PROJECT DESCRIPTION

For the purpose of the California Environmental Quality Act (CEQA), the Project consists of the issuance of a General Section 401 Water Quality Certification (WQC) and Porter Cologne Water Quality Control Act Waste Discharge Requirements (WDR) by the State Water Quality Control Board (State Water Board) that will be used to permit discharges of waste associated with implementation of wildfire mitigation, operation and maintenance of infrastructure, or post fire response, where the activities may cause or threaten to cause a discharge of waste to waters including discharges of dredged or fill materials. The discretionary action taken by the State Water Board, which is also the 'Project' analyzed in this Environmental Impact Report (EIR), is issuance of the Statewide Utility Wildfire General Order (General Order).

The General Order establishes a framework by which individual projects will be reviewed and approved. Although the General Order does not authorize any specific activity, it establishes the standard by which eligible electric utility (Utility Service) projects will be approved or denied by the State Water Board and Regional Water Quality Control Board (Regional Water Board; collectively, Water Boards). 'Project Activities' refers to the implementation of reasonably foreseeable repair and maintenance activities related to fire management by electric utilities and their contractors and subcontractors (e.g., vegetation management, system hardening, and site access), as well as infrastructure operation and maintenance activities that are not directly related to wildfire mitigation but have the same potential effects on water quality as wildfire mitigation activities. Specific activities eligible for General Order coverage are described in detail in Section 2.5.

This chapter describes the purpose, intent, and scope of the General Order.

2.1 Purpose

To meet the objectives listed below, the General Order establishes a permitting process to improve the efficiency of regulatory review of Project Activities.

2.2 Objectives

The objectives of the General Order are to:

1. **Protect Water Quality** – The Water Boards are the principal agencies responsible for protecting water quality in California. Wildfires have significantly impacted state water quality through loss of vegetative cover, increased erosion, and discharge of pollutants. Wildfire mitigation is a critical need for water quality. However, wildfire mitigation activities can also result in water quality impacts. Wildfires directly and indirectly impact water quality through discharge of sediment, increases in erosion, removal of vegetative cover, and breakdown in soil structure. For example, wildfires in recent history have removed vegetative

coverage over thousands of acres of highly erodible soils in the Northern California region. Excess sediment from these areas has in some cases filled in streams with more than 10 feet of accumulated sediment over the course of one rainy season.

This General Order has been developed to support critical wildfire mitigation projects while establishing minimum conditions that will ensure that wildfire prevention activities are also protective of water quality.

2. **Support the Mandate of Senate Bill (SB) 901** – In 2018, SB 901 was passed by the California legislature in response to the increasing frequency and intensity of California's wildfires. The bill requires electrical utility companies or electrical cooperatives to implement wildfire mitigation plans to prevent, combat, and respond to wildfire-causing ignitions resulting from interactions of vegetation with electrical utility infrastructure in their service territories. Activities detailed in the wildfire mitigation plans include vegetation management, system hardening, pole replacement, and access road improvements that may result in increased discharges to waters of the state. The General Order facilitates the increased pace and scale of wildfire mitigation activities. Additionally, the General Order covers electrical utility activities that are similar to the activities described in the wildfire mitigation plans and have similar water quality impacts, and occur inside or outside of the geographic fire threat area (California Public Utilities Commission (CPUC) Tier 2 or Tier 3 high fire threat), such as vegetation removal within the riparian zone to reduce wildfire threat or provide site access.
3. **Provide Consistent Statewide Regulatory Requirements** – As electrical utility operation and maintenance activities have the potential to affect water quality, consistent with state law, they must have coverage under WDRs and WQCs, for these activities. Existing Regional Water Board individual WDR process variations for electrical utility operations and maintenance activities could lead to inconsistencies between regions that may affect the procedures and costs of electrical operations and maintenance activities throughout the state. Individual WDRs and WQCs are also less predictable for utility companies with service areas in more than one region. The General Order establishes consistent compliance expectations for permitted activities and also ensures requirements across other required permits are compatible.
4. **Expedite the Permitting Process for Electrical Utility Wildfire Mitigation Activities** – The current permitting process involves each Regional Water Board individually reviewing and issuing WDRs and WQCs on a project-by-project basis. This requires both the applicant and the Regional Water Boards to expend considerable resources. This General Order provides a regulatory framework that expedites regulatory coverage, including the application and review process.

2.3 Certification Term

The WQC and WDR are proposed to have a five-year term. After five years, the State Water Board will revise and reissue the order as necessary.

2.4 Geographic Scope

The Water Boards recognize that Utility Services serve the critical role of providing electricity throughout California. Since electric utility activities with the potential to affect waters are conducted statewide, Project Activities may occur in every county in the state, within each of California's hydrologic regions: the Central Coast Hydrologic Region, Colorado River Hydrologic Region, North Coast Hydrologic Region, North Lahontan Hydrologic Region, Sacramento River Hydrologic Region, San Francisco Bay Hydrologic Region, San Joaquin River Hydrologic Region, South Coast Hydrologic Region, South Lahontan Hydrologic Region, and Tulare Lake Hydrologic Region. Similarly, since Project Activities have the potential to occur throughout the state, Project Activities may occur within each of the state's nine Regional Water Board jurisdictional areas that are based on the watershed boundaries in Figure 2.1.

Urban areas[1], unless designated as a CPUC High Fire Threat District, are excluded from the General Order's scope. The intent of some General Order conditions is to prevent erosion and sediment contributions to nearby surface waters from work that is often conducted in rural settings, this General Order is not the most appropriate permitting tool for work in urban areas which are often conducted on impervious surfaces.

[1] Urban areas represent densely developed territory, and encompass residential, commercial, and other nonresidential urban land uses. Each urban area must encompass at least 2,000 housing units or at least 5,000 people. (2020 US Census Bureau)

In 2018, the CPUC adopted a fire threat map to identify areas of heightened fire risk for use by utilities in planning risk reduction activities. Developed in collaboration with the Department of Forestry and Fire Protection (CAL FIRE), the Office of Emergency Services, utilities, and stakeholders, this map breaks down the wildfire risk in a utility's service district into three tiers. Tier 1 areas show tree mortality high hazard zones near communities, roads, and utility lines that are a direct threat to public safety. Tier 2 areas have a higher risk of utility related wildfires, and Tier 3 areas have an extreme risk. These areas are known as High Fire Threat Districts. Activities detailed in the wildfire mitigation plans include a variety of activities including vegetation management, system hardening, pole replacement, and access road improvements. To ensure that areas where wildfire mitigation plan activities are anticipated to occur, High Fire Threat Districts are covered by the General Order's scope even if the High Fire Threat District is within an urban area.

Activities are expected to be performed primarily within the Utility Services rights-of-way.

Figure 2-1: Regional Water Board Watersheds



Source: State Water Board, 2022

2.5 Detailed Description of Project Activities

Wildfire prevention and response activities require a variety of construction activities including excavation, vegetation management through mechanical and chemical means, culvert replacement, and erection of temporary stream crossings. In addition, utilities in California need to construct and maintain access routes essential for the maintenance, repair, and upgrade of existing electrical infrastructure to ensure grid reliability, wildfire prevention and containment activities, escape routes, and power restoration for affected communities.

The General Order seeks to facilitate wildfire prevention work to reduce the risks to water quality posed by wildfires and to facilitate post-wildfire response activities that help mitigate the negative water quality impacts caused by wildfire. The project encompasses the entire State of California, including portions of all nine Regional Water Quality Control Boards (Regional Water Board), where Utility Services conduct wildfire mitigation and similar operation and maintenance activities that have potential to affect waters of the state (Project Area). The Project Area's environmental baseline encompasses a legacy of disturbance from Utility Services operation and maintenance and wildfire mitigation activities. Project Activities permitted under the General Order would potentially cause additional disturbance due to the nature of enhanced wildfire prevention and post-fire response.

Since electric services activities occur across the landscape, and some activities may not result in any impacts to waters of the state (e.g., debris removal from a developed site), activity specific criteria are established that require General Order enrollment based on an activity's proximity to waters, slope, and soil erodibility. Activities close to waters, on steep slopes, and erodible soils are more likely to impact water quality. With the exception of vegetation management and herbicide application, the following activity types are covered by the General Order if they will result in soil disturbance.

1. **Vegetation Management** – Vegetation growing along overhead electrical transmission and distribution lines presents an ongoing risk of wildfire ignition. To ensure power is delivered safely, as well as meet minimum clearances requirements (the vertical and lateral distance between the utility line and the vegetation) set forth by the CPUC, CAL FIRE, and other agencies, utilities must continually clear and maintain the areas surrounding electrical transmission and distribution lines.

   Vegetation management activities in or near riparian corridors or wetlands are typically conducted using hand-tools (e.g., string trimmers, pole saws or chainsaws). Trimming and access to trimming sites may occur on foot, climbing, by bucket truck, other mechanical lift, or helicopter, depending on site conditions and available access.

   This General Order covers vegetation management that results in potential increases in surface water temperature (e.g., removal of riparian tree canopy that provides shading to the waterbody), soil disturbance within 100 feet of any water

of the state, or soil disturbance in locations with slopes equal to or greater than 30% and soils having erodibility K factor equal to or greater than 0.2.

2. **Herbicide Application** – Herbicide application is another tool for Utility Services to maintain vegetation clearance standards and reduce wildfire risk. Utility Services may apply herbicides in upland areas or near waters, depending on the location of electrical infrastructure or risk of wildfire from the infrastructure. Herbicides may be sprayed from a vehicle-mounted boom, a vehicle-mounted handheld sprayer, or a backpack sprayer. They can also be applied directly to target vegetation using a wick applicator.

   Herbicide application is covered by this General Order if work occurs within 100 feet of any water. This General Order does not cover point source discharges of biological pesticides and chemical pesticides that leave a residue in waters of the United States that need a National Pollutant Discharge Elimination System permit.

3. **Site access development/maintenance** –Utility Services in California maintain tens of thousands of existing access routes miles annually. These access routes are essential for the maintenance, repair, and upgrade of existing electrical infrastructure to ensure grid reliability, wildfire prevention and containment activities, escape routes, and power restoration for affected communities. Access routes maintenance activities may include cleaning ditches, grading and blading the route surface, moving, and establishing berms, clearing drain inlets and overside drains, repairing culverts, clearing and establishing waterbars, and filling ruts and potholes. Culvert installation or replacement may be required to ensure safe access and reduce environmental impacts when crossing stream channels. The General Order would also authorize the construction of new access routes. Activities commonly associated with access route construction include clearing vegetation, grading (the excavation and creation of the road bench), installing culverts, and installing drainage structures.

   Access route work development/maintenance is covered by this General Order when the activity involves work on more than 100 feet of roadway or results in a soil disturbance within 500 feet of a water of the state.

4. **Staging Areas and Laydown Yards** – Staging areas or laydown yards are essential to support Project Activities including urgent restoration of electric services to communities impacted by wildfire. Staging areas and laydown yards are used to store project-related equipment, vehicles, and materials, and may provide space for parking, project trailers and shelter.

   Construction of staging areas and laydown yards may involve the use of heavy equipment including, but not limited to, excavators, bulldozers, dump trucks, front-end loaders, chainsaws, and tractors. Where possible, staging areas would be sited in existing, open, dry, and disturbed or graded areas. When Project

Activities are complete or the emergency response is finished, these staging areas would be restored to original contours and conditions, or as required by the property owner.

Development, maintenance, reconstruction, and improvements of staging areas and laydown yards is covered by this General Order if the work results in soil disturbance within 50 feet of waters of the state.

5. **Pole/Tower Repairs or Replacement** –Utility Services commonly repair and replace electrical utility poles to maintain grid reliability. Poles may be replaced due to aging and deterioration, damage, updated structural requirements or post-fire mitigation. Poles may be replaced with a similar pole, or with a different size and/or material pole. Pole replacements are conducted from existing roads or in off-road locations within designated work areas. Poles can be reinforced through fiber-wrapping the pole at or below ground level with a material that has been impregnated with preservatives to retard external deterioration of the pole. Utility Services commonly restore utility pole ground-level strength through installing single or double steel trusses that are driven into the ground and secured to the pole with high-strength steel banding.

   During pole replacement, the new pole is framed (i.e., installing cross-arms, pins, insulators, grounds, bonding, markers, and other equipment) on the ground adjacent to the existing pole prior to setting the new pole into the ground. Next, the existing line is de-energized, a line truck augur drills a hole for the new pole, the new pole is inserted into the hole, the hole is backfilled and compacted, and the conductors are moved from the old pole to the new pole. The old pole is typically removed, and the old pole site is backfilled.

   Pole/tower repairs or replacement are covered if the work results in soil disturbance within 50 feet of waters of the state or in areas with slopes greater than 30% or soils with erodibility K factor greater than or equal to 0.2.

6. **Substation Maintenance** –Utility Service substations are located throughout the Project Area, some of which are located adjacent to waters of the state. Substation system maintenance tasks include repair and replacement of the transformer, switch, fuse, cutout, meter, and insulator, which typically required to be performed once per year. These maintenance activities could require use of station property or adjacent property for construction staging, materials storage, and land management, some of which could affect the waters of the state. Utilities would avoid locating substation maintenance activities within waters if feasible; impacting waters for these activities would be infrequent. However, site topography may require the placement of fill into waters of the state to facilitate substation maintenance and develop safe temporary work areas for equipment and crews.

Substation maintenance work is covered by this General Order if it results in soil disturbance within 50 feet of waters of the state or in areas with slopes greater than 30% or soils with erodibility K factor greater than or equal to 0.2.

7. **Transmission Tower Maintenance –** Tower maintenance activities may involve the repair, replacement, or upgrade of tower components. Typical activities include tower repairs, tower extensions, and tower replacements. Tower repairs typically involve replacement or reinforcement of one or more of the existing tower's concrete footings, as well as assembling and erecting replacement tower parts. The tower replacement methods are similar to tower repair, although new foundation(s), if required, may be installed in a different location, and assembly of the tower may require more space to stage the work for installation. Other minor repairs include painting, and replacing fuses, breakers, relays, cutouts, switches, and transformers. Tower repairs require ground disturbance at and adjacent to the base of the tower.

   Tower repairs may include installation of tower extensions or otherwise strengthening the tower superstructure. Tower extensions and superstructure repairs involve installing a prefabricated extension or frame materials at the bottom, waist, or top of the tower. These repairs are typically completed using a tower lifter or crane, but also may use a helicopter. Localized grading may be needed to level the tower lifter or crane's work area. If a helicopter is used, a temporary landing zone may be needed, although the staging area often serves this function.

   Other tower repairs include tower foundation repairs. Tower foundation repairs are completed by breaking away concrete from the existing footing to expose the steel reinforcements and then installing a new replacement concrete footing. Disturbance areas for tower repairs and replacement will vary depending on the type of work that is necessary. Most impacts will be temporary disturbance related to material laydown and assembly areas as well as equipment staging.

   Transmission tower maintenance is covered by this General Order if it results in soil disturbance within 50 feet of a water of the state. This proximity requirement is reflective of the lower risk of impacts to water quality associated with this activity type.

8. **Structural Conversion** – Structural conversions include converting a single pole to an H-Frame structure, tubular steel pole, or lattice steel tower. Replacing aging wood utility poles with longer lasting, fire-resistant steel poles improve system reliability, especially in areas prone to high winds. Steel utility poles can carry thicker lines and can be spread father apart, reducing the risk of ignition during high winds and other extreme weather events. For a detailed description of utility pole replacement activities, refer above to item 6, "Pole/Tower Repairs or Replacement" of this section.

Structural conversions are covered by this General Order if the conversion results in soil disturbance within 50 feet of waters of the state or in areas with slopes greater than 30% or soils with erodibility K factor greater than or equal to 0.2.

9. **Line Reconductoring** – As a part of operation and maintenance, electric line reconductoring is the process of installing new conductor wires on existing towers. Utility Services have been reconductoring with heavily insulated conductor wires to help reduce the risk of ignition. Work crews install replacement conductors by temporarily splicing them to the ends of the existing conductors and pulling them through travelers (i.e., pulleys) attached to the arms of the towers or pole cross-arms. Conductor replacement begins with the installation of travelers at each tower or pole using a boom truck. Where a boom truck cannot be used, a winch is used to install the travelers. In some cases, a helicopter is necessary to install the travelers. Once the travelers are in place, the conductor is unclipped from the insulators and a hoist is used to lower the existing conductor onto the travelers. If a conductor is expected to drop below a conventional height during reconductoring activities, guard structures would be temporarily installed. Next, the existing conductor is removed from the structures, within a pull section. Once the new conductor is pulled into place, it is removed from the travelers and clipped onto the insulators. The travelers are then removed. Line reconductoring may require staging areas, work areas, temporarily guard structures, and pull sites in waters of the state.

   Reconductoring typically is done in 2-to-3-mile sections with the use of pull and tension sites (i.e., pull sites). Pull sites are temporary construction areas that are used during the removal of existing conductors and the placement of new conductors along the transmission line. Pull sites are typically located within relatively flat areas that are in line with the conductor. Several pieces of equipment are used at the pull sites, including tensioners (i.e., rope trucks) to feed out the new conductor and adjust tension, conductor reels to receive the existing conductor as it is removed, and reels of new conductors. Trailers pulled by semi-trucks, which also are parked on site, typically deliver and remote the reels. On-site cranes move the conductor reels on and off the semi-trucks. Typical guard structures are standard wood poles across which temporary netting is strung; in some cases, specifically equipped boom trucks are used instead of poles to hold the netting. Vegetation mowing and minor grading may be required to prepare pull sites for use. Mats or gravel may also be used in wet locations.

   Line reconductoring is covered by this General Order if it results in soil disturbance within 50 feet of waters of the state or in areas with slopes greater than 30% or soils with erodibility K factor greater than or equal to 0.2.

10. **Undergrounding Powerlines** – Undergrounding is the replacement of overhead powerlines with underground powerlines. Utilities currently have initiatives to

underground power lines to reduce the risk of wildfires and to reduce power service outages that might occur from high winds or heavy snow. Undergrounding methods include open-cut trenching and horizontal directional drilling (HDD). Open-cut trenching involves digging a trench into the ground, installing the utility lines within the trench, and backfilling the trench. HDD is a trenchless method that involves three main steps: 1) a small diameter pilot hole is drilled along a directional path from one surface point to another; 2) the pilot hole is enlarged to allow for installation of the utility line; 3) the utility line is pulled through the enlarged hole, creating a continuous segment of underground power lines exposed at the two initial endpoints. HDD is the preferable undergrounding method when crossing waterways because it avoids in-water work.

Undergrounding work is covered by this General Order if it results in soil disturbance within 50 feet of waters of the state or in areas with slopes greater than 30% or soils with erodibility K factor greater than or equal to 0.2.

11. **Boardwalk Repairs or Replacement** – Boardwalks are typically used by utilities to service transmission facilities along vegetated wetland margins and other aquatic resources. Boardwalks typically extend from existing roads or levees and provide foot access across marshes and salt ponds to transmission tower footings. As needed, the height of existing boardwalks may be raised, or the wood structures are replaced with a semi-reinforced high-density polyethylene material that has a life expectancy of 50 to 75 years. Support equipment for replacement and repair may include boats, barges, and helicopters. A staging yard located on land is often also used to store materials. All boardwalk replacement and repair activities are completed manually and require the use of generators and handheld equipment including drills, chains saws, and skill saws. Replacement pilings are pushed into the ground using a steel bar for leverage. The replacement planking is transported along the boardwalk with hand-dollies, then slid into place, drilled, and bolted. Handrails are then installed, which are wood planks that are connected to the boardwalk with support beams. Old boardwalks are removed by hand with chainsaws, and all removed materials are taken for off-site disposal.

    Boardwalk repair or replacement work is covered by this General Order if it results in soil disturbance within 50 feet of the waters of the state.

12. **Electric Utility Infrastructure Lowering, Maintenance, Replacement, or Removal** – Activities under this category encompass miscellaneous activities associated with the lowering, maintenance, replacement, or removal of electric utility infrastructure. While the bulk of Project Activities fall under the previously described categories, there may be covered activities not explicitly described in this EIR. Activities in this category would be evaluated on a project-by-project basis.

Electric utility infrastructure lowering, maintenance, replacement, or removal work is covered by this General Order if it results in soil disturbance within 50 feet of waters of the state or in areas with slopes greater than 30% or soils with erodibility K factor greater than or equal to 0.2.

2.6 General Order Requirements

The General Order does not authorize, approve, or permit any particular project. The General Order will be used to authorize eligible wildfire mitigation, operation and maintenance, and wildfire response activities that may cause or threaten to cause a discharge of waste to waters including discharges of dredged or fill materials. A range of projects are eligible for coverage from large-scale post-fire response activities to replace burned infrastructure, to small-scale access route projects that require maintenance of an existing road. The General Order does not authorize wholly new electrical utility infrastructure, such as, expansion of electrical service to a new area not already served.

The enrollment process varies depending on the characteristics of the project and environmental setting in which the project is located. Certain lower risk, non-notifying Project Activities may proceed without providing notice to the Water Board but are still required to comply with all applicable General Order conditions, including tribal resource conditions. An example of a non-notifying activity is replacement of an electric line that results in soil disturbance within 50 feet of a water of the state, but is in a low gradient portion of the central valley. Non-notifying activities must meet all the following criteria to proceed without applying:

- Project Activities will not result in a discharge of dredge or fill materials to waters; and no work will occur within waters;
- Project Activities will not include use of heavy equipment on saturated soils;
- Project Activities will not include installation of new access routes; and
- Project Activities will not occur on slopes equal to or greater than 30% or soils where the erodibility K factor is equal to or greater than 0.2.

Conversely, an example of an activity that requires a Notice of Intent (a notifying activity) is the construction of a water crossing that will result in a discharge of dredged or fill materials. To apply for coverage under the General Order, a Utility Service will submit a Notice of Intent including supplemental documents as necessary, and the appropriate fee to the Water Board with jurisdiction over the project. A complete Notice of Intent and submittal provides the Water Board with specific information related to the project, including:

a) Contact person and utility name;
b) Project location;
c) Description of Project Activities;
d) Map of the entire Project Area that shows the planned Project Area, land use and water bodies;

e) Anticipated construction start and end dates;
f) Related federal and state permits;
g) Steps taken to avoid, minimize and proposed compensatory mitigation for any impacts to waters of the state;
h) A description of the direct and indirect impacts to waters of the state;
i) An erosion control plan; and
j) Supporting documentation.

Upon receipt, the Water Board will review the information in the Notice of Intent to confirm that it met the General Order requirements. Specific project characteristics require a focused level of review. For example, any proposed permanent impacts must be offset through compensatory mitigation that satisfies No Net Loss Policy requirements. This would require submission of a compensatory mitigation plan.

All covered Project Activities (both non-notifying and notifying) are required to comply with applicable project conditions that cover a range of topic areas. Although compliance with the General Order conditions is inherently part of the reasonably foreseeable Project Activities analyzed in the EIR, each resource section describes conditions applicable to protecting that resource, including:

- **Access Route Standards** – If not properly designed and maintained, unpaved access routes can be a major source of sediment and other pollutants to surface waters. These standards ensure that access routes are designed and maintained in a manner that will minimize erosion and sedimentation. Such standards include installation of drainage structures on the route surface that hydrologically disconnect road runoff from waterbodies.
- **Construction Best Management Practices** – requires implementation of appropriate best management practices (BMPs) to prevent construction activity impacts on natural resources, including structural controls to prevent and reduce the discharge of pollutants from runoff, spillage or leaks, and waste disposal. Best management practices also include non-structural controls such as scheduling construction to avoid special status species impacts and preserving existing vegetation.
- **Dewatering** – If not properly designed and installed, temporary stream diversions and dewatering structures have the potential to alter flow and contribute pollutants to the waters of the state. Implementation of these conditions ensures dewatering and diversion activities are conducted in a manner that will have minimal impacts to aquatic life, stream flow and water quality. If a project involves installation of temporary diversions or impoundments for the purpose of dewatering the work area, a dewatering plan must be provided. The dewatering plan should include design criteria for dewatering structures, a description of appropriate BMPs, and a plan for water quality monitoring upstream and downstream of the in-water work area.

- **Environmental Awareness Training** – requires that someone knowledgeable about state and federal laws related to the protection of natural resources within the Project Area (i.e., water quality, special status species, and tribal cultural resources) train all onsite personnel on how to identify and protect resources in accordance with applicable General Order requirements and implement BMPs. At least one person knowledgeable about the protection of resources within the Project Area must be onsite for the duration of active construction.
- **Herbicide Application** – Herbicides have the potential to adversely impact non target species and discharge to waters of the state if not properly applied. The intent of the herbicide application conditions is to ensure that herbicides are applied in a manner that would not adversely impact water quality and sensitive species. For example, the General Order prohibits herbicide application during high winds in order to prevent the spread of herbicides to non-target species.
- **Preventing Spread of Invasive Species** – construction equipment and vehicles have the potential to spread invasive species from one work site to another. Related conditions ensure construction equipment and vehicles are properly inspected and cleaned prior to entering or leaving the work area to reduce the chance of spreading invasive species.
- **Restoration Plans** – Projects have the potential to adversely impact the environment even after construction activities are complete if the project site is not appropriately restored. The intent of this requirement is to ensure that Project Areas are fully restored to pre-existing conditions after construction activities are complete. Restoration includes stabilizing disturbed areas, replanting native vegetation, regrading slopes to pre-construction contours, and removing all construction equipment.
- **Vegetation Management** – Vegetation management activities have the potential to discharge waste to the waters of the state. The intent of vegetation management conditions is to ensure that vegetation management activities are conducted in manner that minimizes impacts to water quality within the Project Area. For example, using wood chips on slopes steeper than 30% within 100 feet of waters of the state is prohibited under the General Order.

Projects that do not meet the criteria under the General Order must apply for a WDR from the applicable Water Board.

3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

3.0.1 Approach to the Environmental Analysis

As required by California Environmental Quality Act (CEQA) (State CEQA Guidelines Section 15126.2), this Environmental Impact Report (EIR) identifies and focuses on the potentially significant direct and indirect environmental effects of the Statewide Utility Wildfire General Order (General Order). This EIR considers the reasonably foreseeable range of Project Activities (as described in Section 2.0) included in the General Order, to provide a broad, comprehensive analysis of environmental impact issues.

The project encompasses the entire State of California, including portions of all nine Regional Water Quality Control Boards (Regional Water Board), where Utility Services conduct wildfire mitigation and similar operation and maintenance activities that have potential to affect waters of the state (Project Area). The State Water Resources Control Board (State Water Board) does not authorize any specific activities for the purpose of wildfire mitigation, operations and maintenance, or post fire response with adoption of this General Order. The State Water Board also does not propose to construct, operate, or undertake specific physical actions following adoption of the General Order. Rather, the General Order is designed to permit the actions of dischargers that perform wildfire mitigation, operation and maintenance, or post-fire response activities in accordance with general protection measures, and other conditions of the General Order.

This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities related to the adoption of the General Order. Impacts to environmental resources discussed in subsequent chapters describe impacts from the activities listed in Section 2.0, with inclusion of General Order requirements, and recommends mitigation measures, when necessary, to avoid or minimize impacts. Specific project details, such as project sizes, configurations, locations, and operations, are not known at this time.

The number of projects that may be implemented, project times and locations, and design and operation are not yet known. Some assumptions could be adopted from existing studies and environmental documents. In most cases, however, these assumptions are not available, and defining them would be speculative and would not reasonably forecast potential impacts. Further, an effort to simulate multiple integrated projects would entail testing and iteratively modifying many of these assumptions, which would compound the difficulty and subjectivity of the modeling effort. Therefore, this EIR does not include individual project modeling or quantitative analysis when evaluating impacts.

If the analysis has determined that an impact would be significant, then mitigation measures have been recommended to reduce the magnitude of the impact. It is possible that implementing additional mitigation measures could reduce a significant impact to less than significant; however, the individual locations, scale, and timing of

possible future projects are not known at this time, nor is it known what specific resources might be present within a future project's footprint. The factors necessary to identify specific impacts include the project's design and footprint, and the type and precise locations of the proposed activities. Therefore, it is not possible to conclude that every potentially significant adverse impact would be avoided or reduced to a less-than-significant level with implementation of mitigation measures. Some impacts would remain significant and unavoidable.

Because details of individual projects are not yet known, impacts are considered with a reasonable forecasting of effects. The impact analysis assumes that the projects or actions would be undertaken in compliance with the General Order and other relevant federal, state, and regional and local regulations and ordinances. In addition, individual projects could be undertaken in different ways to meet regulatory requirements and guidelines.

This EIR assumes that the General Order is implemented, and that wildfire mitigation and operation and maintenance projects would be permitted under the General Order. Accordingly, this EIR evaluates the potential impacts of the Project Activities in the General Order. The General Order would improve the efficiency of the State Water Board and/or Regional Water Boards (collectively, Water Boards) regulatory reviews of wildfire mitigation, operation and maintenance, and post-fire response projects throughout the state.

3.0.2 Analysis Contents

Chapter 3 of the EIR presents the environmental setting, regulatory setting, significant effects on the environment (impacts), and mitigation measures, as applicable, for each of the following resource topics, listed in the order in which they are analyzed in this EIR:

3.1 Aesthetics
3.2 Agriculture and Forestry
3.3 Air Quality
3.4 Biological Resources
3.5 Cultural Resources
3.6 Energy
3.7 Geology and Soils
3.8 Greenhouse Gas Emissions
3.9 Hazards and Hazardous Materials
3.10 Hydrology and Water Quality
3.11 Land Use and Planning
3.12 Mineral Resources
3.13 Noise
3.14 Population and Housing

3.15 Public Services
3.16 Recreation
3.17 Transportation
3.18 Tribal Cultural Resources
3.19 Utilities and Service Systems
3.20 Wildfire

Sections 3.1 through 3.20 of this EIR present a discussion of existing conditions, regulatory background, environmental impacts associated with implementation of Project Activities, General Order requirements, mitigation measures to reduce the level of impact, and residual level of significance (i.e., after application of mitigation, including impacts that would remain significant and unavoidable after application of all feasible mitigation measures). The environmental resource topics evaluated in Chapter 3 are consistent with those identified in the Notice of Preparation prepared for this EIR.

Sections 3.1 through 3.20 follow the same general format:

Introduction to the analysis contained in the individual resource section.

Regulatory setting presents the laws, regulations, plans, and policies that are relevant to each environmental resource. Regulations originating from the federal, state, and local levels are each discussed where applicable. Given its statewide extent and the possible number of local and regional responsible agencies, this EIR does not identify potential individual local government plans, policies, and ordinances. This EIR assumes that any Project Activities proposed by electrical utility (Utility Service) under the General Order would comply with local plans, policies, and ordinances.

Environmental setting presents the existing environmental conditions within the treatable landscape in accordance with Section 15125 of the State CEQA Guidelines. The degree of specificity under this EIR's level analysis is more generalized than a site-specific analysis because the exact locations and extent of proposed Project Activities are not yet known. The analysis considers the reasonably foreseeable range of Project Activities potentially implemented across the statewide study area, spanning across all nine Regional Water Boards. Where applicable and helpful for conducting the impact evaluation, the setting description and environmental analysis for the EIR have discussed geographic regions reflecting different environmental characteristics. Other topics use different geographic region approaches appropriate to the subject (e.g., air basins for air quality or watersheds for water quality), or address the state as a whole, if dividing California into smaller regions does not provide value for the particular environmental issue (e.g., for greenhouse gas emissions).

Impact Analysis identifies the thresholds of significance used to determine the level of significance of the environmental impacts for each resource topic, in accordance with the State CEQA Guidelines (Sections 15126, 15126.2, and 15143). The thresholds of significance used in this EIR are primarily based on the checklist presented in Appendix G of the State CEQA Guidelines, best available data, applicable regulatory standards of relevant public agencies, and professional judgement. The significance of each impact is determined by evaluating the physical changes in the environmental setting that

would be caused by implementation of Project Activities from the General Order and analyzing those effects against the identified threshold. Key methods and assumptions used to frame and conduct the impact analysis as well as issues or potential impacts not discussed further (such issues for which the program would have no impact) are also described.

Impacts are organized by number convention for each resource (e.g., in Section 3.1, "Aesthetics," impacts are numbered as follows Impact AES-1, Impact AES-2). A bold-font impact statement, a summary of each impact, and its level of significance before application of any necessary general order requirements, and/or mitigation precedes the discussion of each impact. Each identified mitigation measure is labeled with the same number convention to correspond with the number of the impact that would be mitigated by the measure (e.g., Mitigation Measure AES-1 for Aesthetics). Following the mitigation measure, the measure's effectiveness at reducing the impact is described and compared again against the identified threshold to determine the level of significance after mitigation. In addition, General Order requirements applicable to each resource section are identified. Every impact assessment has a significance conclusion provided. Many of the mitigation measures identified in this EIR are standard types of mitigation, are generally feasible, and would often reduce impacts to a less-than-significant level.

Chapter 4, *Other CEQA Considerations*, presents a cumulative effects analysis of the General Order impacts considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. That chapter also includes significant irreversible environmental changes, and analysis of the project's growth-inducing impacts, as required by Public Resources Code (PRC) Section 21100(b)(5).

Chapter 5, *Alternatives*, presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to the General Order, as required by Section 15126.6 of the State CEQA Guidelines.

3.0.3 General Order Requirements and Mitigation Measures

General Order Requirements: Establishes consistent compliance expectations for permitted activities and also ensures requirements across other required permits are compatible.

Mitigation Measures: The State CEQA Guidelines (Section 15370) define mitigation as all of the following:

- avoiding the impact altogether by not taking a certain action or parts of an action,
- minimizing impacts by limiting the degree or magnitude of the action and its implementation,
- rectifying the impact by repairing, rehabilitating, or restoring the affected environment,

- reducing or eliminating the impact over time by conducting preservation and maintenance operations during the life of the action, and
- compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of resources in the form of conservation easements.

Prior to enrollment under the General Order, individual projects would be subject to project-specific analysis to determine the applicability of the mitigation measures. The project proponent for each project would be responsible for implementing the required mitigation measures pursuant to Section 15097 of the State CEQA Guidelines.

3.0.4 Identifying Impact Significance

The analysis first determines the extent to which each of the resources could be affected by the General Order. The analysis then applies a set of specific significance criteria (Thresholds of Significance) based on the CEQA Guidelines Appendix G Environmental Checklist Form. The “threshold of significance” for a given environmental effect is that level at which the lead agency finds effects of the project to be significant. The threshold can be defined as a quantitative or qualitative standard, or a set of criteria, pursuant to which the significance of a given environmental effect may be determined.

The range of potential impacts is as follows:

No Impact: Where the General Order is not anticipated to create a physical adverse change in the environment or the project would result in only a beneficial impact.

Less-than-Significant Impact: An impact is considered less than significant when it does not reach the threshold of significance and would therefore cause no substantial adverse change in the physical environment. No mitigation is required for less-than-significant impacts.

Potentially Significant Impact: An impact is considered significant if it would result in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by evaluating the effects of the projects permitted under the General Order in the context of specified thresholds of significance. Mitigation measures and/or project alternatives are identified to reduce these effects on the environment where feasible.

Significant and Unavoidable Impact: An impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level. A statement of overriding considerations must be adopted if impacts cannot be mitigated to a less-than-significant level (State CEQA Guidelines, Section 15093(b)).

3.1 AESTHETICS

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Have a substantial adverse effect on a scenic vista?	X			
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	X			
3) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	X			
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

3.1.1 Introduction

This section discusses the visual resources and characteristics of the Project Area and evaluates the reasonably foreseeable potential impacts of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, potential impacts include a change in a scenic vista, damage to scenic resources, degradation of visual character, and creation of a new source of light or glare.

3.1.2 Regulatory Section

This section describes the regulations and regulatory agencies relevant to aesthetics in the Project Area.

Federal

Coastal Zone Management Act

The California Coastal Management Program, approved and administered by the National Oceanic and Atmospheric Administration in 1978, is administered by three state agencies: the California Coastal Commission (CCC), the San Francisco Bay Conservation and Development Commission (BCDC), and the California Coastal Conservancy. The CCC manages development along the California coast except in the San Francisco Bay, where the BCDC oversees development. The California Coastal Conservancy purchases, protects, restores, and enhances coastal resources, and provides access to the shore.

Sierra Resource Management Plan

In 2008, the United States (US) Bureau of Land Management approved the Sierra Resource Management Plan, which outlines a management strategy for 2,035 acres of the Cosumnes River Preserve. The plan, prepared to comply with the Federal Land Policy and Management Act, identifies goals, objectives, and management actions addressing 19 resource areas, including visual resources. The visual resource's goal is to "protect and enhance the scenic qualities and visual integrity of the characteristic landscapes in the planning area." The plan designates the Cosumnes River Preserve as an Area of Critical Environmental Concern among other Areas of Critical Concern, requiring special management to protect important natural or cultural resource values (US Bureau of Land Management 2008).

US Forest Service Scenery Management System

US Forest Service (USFS) Scenery Management System provides a framework for the inventory, analysis, and management of scenery on National Forest lands. The Scenery Management System includes landscape character descriptions and scenic integrity objectives that can be used to help assess the compatibility of a proposed project with the surrounding landscape. The Scenery Management System is described in detail in USFS's 1996 handbook, *Landscape Aesthetics: A Handbook for Scenery Management.*

Visual Resources Management

The Bureau of Land Management is responsible for managing public land for multiple uses, including protection of scenic values within public lands through Visual Resource Management in accordance with Section 102(a)(8) of the Federal Land Policy and Management Act of 1976. Visual resource classes are assigned through the inventory processes and serve two purposes: (1) an inventory tool that portrays the relative value of the visual resources and (2) a management tool that portrays the visual management objects.

Visual Resource Management has four classes (I, II, III, and IV). These classes are assigned through resource management plans and are ultimately based on the management decisions made in resource management plans. These classes also include the level of visual change in the landscape character that would be allowed as a result of the proposed management activities and are described below:

a) **Visual Resource Management I**: The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristics would be very low and must not attract attention.
b) **Visual Resource Management II:** The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape would be low. Management activities may be seen but would not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
c) **Visual Resource Management III**: The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape would be moderate. Management activities may attract attention but would not dominate the view of the casual observer. Changes would repeat the basic elements found in the predominant natural features of the characteristic landscape.
d) **Visual Resource Management IV**: The objective of this class is to provide for management activities which require major modifications of the existing character of the landscape. The level of change to the characteristics landscape can be high. These management activities would be made to minimize the impacts of these activities through careful location, minimal disturbance, and repeating the basic elements.
e) **Rehabilitation Areas**: Areas defined by Visual Resource Management that need rehabilitation from a visual standpoint and would be flagged during the inventory process. The level of rehabilitation will be determined through the resource management plan proves by assigning the Visual Resource Management class approved for that particular area.

Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act of 1968, as amended (Public Law 90-542; US Code Title 16, Sections 12371–1287), established the National Wild and Scenic Rivers System. The system identifies distinguished rivers of the nation that possess remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. The Wild and Scenic Rivers Act preserves the free-flowing condition of designated rivers and protects their local environments. Section 5(d)(1) of the act requires that all federal agencies, when planning for the use and development of water and related land resources, consider potential national wild, scenic, and recreational river areas, which are defined as follows (National Wild and Scenic Rivers System 2020):

a) **"Wild" river areas—**Those rivers or sections of rivers that are free of impoundments and are generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
b) **"Scenic" river areas—**Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
c) **"Recreational" river areas—**Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past. Scenic qualities are a major consideration in the designation of rivers as wild (pristine), scenic (largely undeveloped), or recreational (mostly developed), although river segments in any of the three categories typically maintain high scenic qualities.

State

California Coastal Act

Section 30251 of the California Coastal Act (CCA) sets forth the act's aesthetic requirements. Under Section 30251, the development process must consider and protect the scenic qualities of coastal areas. Permitted development must be located and designed to protect the scenic and visual qualities of coastal areas. This includes protecting views of and along the ocean and scenic coastal areas, matching the visual character of surrounding areas, and where feasible, restoring and enhancing visual quality in visually degraded areas.

Under the CCA, cities and counties within the Coastal Zone must develop local coastal plans, which, at a minimum, must be as protective as and otherwise consistent with the Coastal Act's standards. Portions of the treatable landscape lie within the Coastal Zone, and treatment activities in these areas may be subject to requirements of the CCA or local coastal plan.

California Scenic Highway Program

The California Department of Transportation (Caltrans) manages the California Scenic Highway Program to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to the highways. Designation as a scenic highway is determined by views of the natural landscape, scenic quality, and the extent of visual intrusion. A city or county must nominate an eligible scenic highway for official designation and adopt a corridor protection program that includes zoning and planning policies to preserve its scenic quality.

Local

The Project Area encompasses numerous counties and cities of California. Each county and city have local regulations and/or general plans that contain aesthetics goals and policies that promote preservation and enhancement of the area's visual character and areas of identified high scenic value. Each region's natural features, view corridors, scenic routes, and/or prominent ridgelines can be considered "gateways" entrances.

3.1.3 Environmental Setting

Visual resources include physical features that make up the visible landscape, including land, water, vegetation, geologic features, and built structures (e.g., buildings, roadways, bridges, levees). This section also addresses visual resources in the surrounding landscape that contribute to the visual character of the Project Area.

Sensitive Viewers

Viewer sensitivity is one factor in assessing aesthetic impacts. It is a function of several influences:

a) Visibility of the landscape
b) Proximity of viewers to the visual resources
c) Frequency and duration of views
d) Number of viewers
e) Types of individuals and groups of viewers
f) Viewers' expectations, as influenced by their values, awareness, and activity

The viewer's distance from landscape elements plays an important role in determining an area's visual quality. Landscape elements are considered higher or lower in visual importance based on their proximity to the viewer. Generally, the closer a visual resource is to the viewer, the more dominant and thus the more visually important it is to the viewer. To account for this, visual quality assessment methods typically separate landscapes into foreground, middle ground, and background views. Generally, the foreground is characterized by clear details (within 0.25 or 0.5 mile from the viewer); the middle ground is characterized by the loss of clear texture in a landscape, which creates a uniform appearance (foreground to 3–5 miles in the distance); and the background extends from the middle ground to the limit of human sight (USFS 1974:7).

Residents

Communities in the Project Area vary in terms of their population, density, and character. Larger cities in the Project Area include Los Angeles, San Diego, San Jose, San Francisco, Fresno, and Sacramento. Examples of midsized cities include Stockton, Irvine, Fremont, Corona, and Vacaville. Smaller cities include Chico, Redding, Napa, Hollister, and Eureka. Small cities or towns include Isleton, Calistoga, Corning, Truckee, and Yucca Valley. A small portion of the residents of the Project Area reside in rural communities dispersed throughout the state. Activities in some of these cities would not be covered unless they were also in a High Fire Threat District.

Residents of these communities are potential viewers of visual resources in the Project Area. Views are among many factors that influence residential location choice. Residents tend to have high visual sensitivity. People who live in the larger cities with higher population densities tend to have views consisting of more built environments. Residents of smaller cities and towns tend to have more views of waterways and rural viewscapes. Other visual resources in the Project Area include areas with vistas of the Pacific Ocean, waterways, and major mountain ranges. Residents living farther from given visual resources view these resources less frequently, and potentially from greater distances, which can reduce the visual importance of those resources to those people.

Workers and Commuters

Workers and commuters using roadways and railways in the Project Area are potential viewers of visual resources. Most job opportunities in the rural portions of the Project Area are related to agriculture. Commuter towns or bedroom communities are residential suburbs inhabited largely by people who commute to a nearby city for work. These workers routinely view the natural environment, built environment, and other aspects of the Project Area that contribute to its visual character. Commuters using roadways and railways may view these resources for less time, at greater speeds, and from greater distances than residents, workers, visitors to recreational areas, and other sensitive viewers. Workers and commuters generally have low visual sensitivity because their activities tend not to focus on visual surroundings. Larger cities and urban areas contain less agricultural land and more built-out urban land.

Recreation, Visitors, Travelers, and Tourists

The Project Area features diverse recreational opportunities that derive from varied resources and facilities. Outdoor recreation varies based on the landscape and surrounding resources. For instance, activities such as boating, fishing, and swimming could occur in lakes, reservoirs, beaches, and rivers, and land-based activities such as hiking, biking, and camping could occur in areas not directly connected with waterways. In public areas—national, state, and local parks and National Forest lands—the visual character tends to be of high quality, particularly where the parks provide access to scenic destinations such as smooth rolling hills, patterns of mountaintop and tree-lined

skylines, prominent ridgelines, sharp rocky outcroppings, dense and dark forests, and visually captivating waterfalls. Recreation in urban areas could include activities such as the use of city parks, walkways, and museums, events, tourist destinations, and picnicking. The Project Area contains a wide variety of recreation resources and opportunities because of its size and range of landscapes and water features.

Working Landscapes

Working landscapes are lands on which resource management and/or cultivation activities occur in large areas, mostly without buildings or structures, such as agricultural, timber, or grazing lands. Working landscapes may contain natural contours, waterways, and other features or may alter these while maintaining a primarily unbuilt visual context. A variety of features may define the visual character of a working landscape. The preservation, transformation, and general purpose or function of prominent features that are most noticeable in the landscape can affect the human perception of a working landscape. Working landscapes in the study area are generally associated with agricultural and timber production. Facilities may include renewable and energy facilities, such as wind turbines.

The agricultural landscape, consisting of orchards, row crops, and pasturelands, is dominant aesthetically and defines rural areas of the study area, most notably the Central Valley. Orchards and row crops are found on large plots and consist of long, horizontal lines that dominate the visual field, creating a uniform form and texture.

Light and Glare

For the purposes of the analysis in this EIR, light refers to unnatural nighttime lighting, which may intrude into sky darkness when added to an area that currently contains little or no artificial lighting (also known as “light pollution”). Glare refers to unnatural light or reflected natural light that can be annoying or distracting.

Lighting and glare levels tend to be much lower in undeveloped areas, particularly when these areas occur farther from developed areas. Urban areas contain varied light sources, such as streetlights and car headlights, and in more urbanized areas, skyglow may be present. Skyglow is an areawide illumination of the night sky from human-made light sources.

Regional Water Board Descriptions

A brief summary of notable scenic highways in the nine Regional Water Boards is outlined below.

Regional Board 1—North Coast

The North Coast Region encompasses approximately 19,400 square miles and includes 340 miles of coastline and remote wilderness areas, as well as urbanized and agricultural areas. The North Coast Region covers all of Del Norte, Humboldt, Trinity, and Mendocino Counties; major portions of Siskiyou and Sonoma Counties; and small

portions of Glenn, Lake, Modoc, and Marin Counties. Scenic highways in the North Coast Region include State Routes (SRs) 12 and 116 and US Highway (US) 101.

Regional Board 2—San Francisco Bay

The San Francisco Bay Region is 4,603 square miles, roughly the size of the state of Connecticut, and is characterized by its dominant feature, the San Francisco Bay estuary, which is the largest estuary on the West Coast of the US, where freshwater from California's Central Valley mixes with the saline waters of the Pacific Ocean.

The San Francisco Bay estuary conveys the waters of the Sacramento and San Joaquin Rivers into the Pacific Ocean. The bay marks the natural topographic separation between the northern and southern coastal mountain ranges. The San Francisco Bay Region's waterways, wetlands, and bays form the centerpiece of the US' fourth-largest metropolitan region, including all or major portions of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties. The region also includes coastal portions of Marin and San Mateo Counties, from Tomales Bay in the north to Pescadero and Butano Creeks in the south. Scenic highways in the San Francisco Bay Region include SRs 9, 24, 35, and 84, and Interstates 280, 580, and 680, as well as the iconic coastal SR 1 and US 101.

Regional Board 3—Central Coast

The Central Coast Regional Water Board has jurisdiction over a 300-mile-long by 40-mile-wide section of the state's central coast. Its geographic area encompasses all of Santa Cruz, San Benito, Monterey, San Luis Obispo, and Santa Barbara Counties, as well as the southern third of Santa Clara County, and small portions of San Mateo, Kern, and Ventura Counties. Included in the region are urban areas such as the Monterey Peninsula and the Santa Barbara coastal plain; prime agricultural lands as the Salinas, Santa Maria, and Lompoc Valleys; National Forest lands; extremely wet areas like the Santa Cruz Mountains; and arid areas like the Carrizo Plain. Scenic highways in the Central Coast Region include SRs 1, 33, 68, and 156 and US 101.

Regional Board 4—Los Angeles

The Los Angeles Region encompasses all coastal watersheds and drainages flowing to the Pacific Ocean between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line, as well as the five coastal islands: Anacapa, San Nicolas, Santa Barbara, Santa Catalina, and San Clemente. In addition, the Los Angeles Region includes all coastal waters within 3 nautical miles off the continental and island coastlines. Major mountain ranges in the Los Angeles Region include the San Gabriel Mountains, Santa Monica Mountains, Santa Susana Mountains, Simi Hills, and Santa Ynez Mountains. The San Gabriel Mountains are the most prominent range in this group.

Land uses in the region vary considerably. In Ventura County, land uses are changing from agriculture and open space to urban residential and commercial. In southern Los Angeles County, predominant land uses include urban, residential, commercial, and

industrial. In northern Los Angeles County, open space is rapidly being transformed into residential communities.

Regional Board 5—Central Valley

The Central Valley Region is bounded by the crests of the Sierra Nevada on the east and the Coast Ranges and Klamath Mountains on the west. This region extends some 400 miles from the California/Oregon border southward to the headwaters of the San Joaquin River. The Sacramento River and San Joaquin River Basins cover about one-fourth of the total area of California and more than 30 percent of the state's irrigable land. The Sacramento–San Joaquin Delta is a maze of river channels and diked islands covering roughly 1,150 square miles, including 78 square miles of water area. Scenic highways in the Central Valley Region include Interstate 5, US 50, and SRs 4, 20, 33, 88, 89, 151, 152, and 180.

Regional Board 6—Lahontan

The Lahontan Region has historically been divided into the North and South Lahontan Basins at the boundary between the Mono Lake and East Walker River watersheds.

The region is about 570 miles long and has a total area of 39,210 square miles. The Lahontan Region includes the highest point (Mount Whitney) and lowest point (Death Valley) in the contiguous US, and the topography of the remainder of the region is diverse. The region includes the eastern slopes of the Warner Mountains and the Sierra Nevada; the northern slopes of the San Bernardino and San Gabriel Mountains; the southern slopes of the Tehachapi Mountains; and all or part of other ranges including the White, Providence, and Granite Mountains and the western slopes of the New York and Ivanpah Mountains. Topographic depressions include the Madeline Plains and the Surprise, Honey Lake, Bridgeport, Owens, Antelope, and Victor Valleys.

Much of the Lahontan Region is in public ownership, with land use controlled by agencies such as the USFS, National Park Service, and BLM; various branches of the military; the California Department of Parks and Recreation; and the City of Los Angeles Department of Water and Power.

While the permanent resident population of the Lahontan Region is lower than that of more urbanized regions, it is mostly concentrated in high-density communities in the South Lahontan Basin. In addition, millions of visitors use the Lahontan Region for recreation each year. Scenic highways in the Lahontan Region include SRs 89, 168, and 190, and US 395.

Regional Board 7—Colorado River Basin

The Colorado River Basin Region covers approximately 13 million acres (20,000 square miles) in southeastern California. It includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. The region is bounded for 40 miles on the northeast by the state of Nevada; on the north by the New York, Providence, Granite, Old Dad, Bristol, Rodman, and Ord Mountain ranges; on the west by the San

Bernardino, San Jacinto, and Laguna Mountain ranges; on the south by Mexico; and on the east by the Colorado River and state of Arizona.

A significant geographical feature of the Colorado River Region is the Salton Trough, which contains the Salton Sea and the Coachella and Imperial Valleys. Much of the region's agricultural economy and industry occurs in the Salton Trough. Scenic highways in the Colorado River Region include SRs 62 and 74.

Regional Board 8—Santa Ana

The Santa Ana Region is the smallest of the nine regions in the state (2,800 square miles) and occurs in Southern California, roughly between Los Angeles and San Diego. Although the region is small, it is one of the most densely populated regions. Scenic highways in the Santa Ana Region include SRs 38, 91, and 243.

Regional Board 9—San Diego

The San Diego Region forms the southwest corner of California and occupies approximately 3,900 square miles of surface area. The San Diego Region encompasses most of San Diego County, parts of southwestern Riverside County, and southwestern Orange County. The western boundary of the region consists of the Pacific Ocean coastline, which extends approximately 85 miles north from the United States/Mexico border. The northern boundary of the San Diego Region is formed by the hydrologic divide that starts near Laguna Beach and extends inland through El Toro and easterly along the ridge of the Elsinore Mountains into the Cleveland National Forest.

The eastern boundary of the region is formed by the Laguna Mountains and other lesser-known mountains located in the Cleveland National Forest. The region's southern boundary is formed by the United States/Mexico border. Scenic highways in the San Diego Region include SRs 52, 75, 78, 125, and 163.

3.1.4 Impact Analysis

Methods of Analysis

Project Activity impacts to aesthetic resources were analyzed qualitatively using best professional judgment. The Project Area's aesthetic environmental baseline encompasses a legacy of disturbance from Utility Service operation and maintenance and wildfire mitigation activities, but as explained below, Project Activities permitted under this General Order would potentially cause additional disturbance due to the nature of enhanced wildfire prevention, including greater clearance requirements, increased frequency, and the need for more access roads. For Project Activities in post wildfire areas, the baseline is a highly disturbed viewshed. For this reason, this analysis is focused on wildfire mitigation. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities that are expected to be permitted under the General Order. This section describes impacts in terms of location, context, duration, and intensity, and recommends mitigation measures, when necessary, to avoid or minimize impacts. The

analysis assumes that Utility Services will implement General Order requirements, mitigation measures (as applicable), and best management practices (BMPs) that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, an impact to aesthetics would be considered significant if permitted under the General Order would do any of the following:

1. Have a substantial adverse effect on a scenic vista.
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
3. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Impacts and Mitigation Measures

For impacts 1 through 4, the following General Order requirements will avoid or minimize impacts to Aesthetic Resources:

- **Access Route Standards** – If not properly designed and maintained, unpaved access routes can be a major source of sediment and other pollutants to surface waters. These standards ensure that access routes are designed and maintained in a manner that will minimize erosion and sedimentation. Such standards include installation of drainage structures on the route surface that hydrologically disconnect road runoff from waterbodies.
- **Construction Best Management Practices** – requires implementation of appropriate BMPs to prevent construction activity impacts on natural resources, including structural controls to prevent and reduce the discharge of pollutants from runoff, spillage or leaks, and waste disposal. Best management practices also include non-structural controls such as scheduling construction to avoid special status species impacts and preserving existing vegetation.
- **Restoration Plans** – Projects have the potential to adversely impact the environment even after construction activities are complete if the project site is not appropriately restored. The intent of this requirement is to ensure that project areas are fully restored to pre-existing conditions after construction activities are complete. Restoration includes stabilizing disturbed areas, replanting native vegetation, regrading slopes to pre-construction contours, and removing all construction equipment.

In addition, in some instances, other State or Regional Water Board permits may be required for Project Activities. For example, the Construction General Permit establishes erosion and sediment control standards for activities that disturb over an acre of soil. Collectively, these requirements will avoid and minimize impacts to Aesthetic Resources from Project Activities.

Impact AES-1: Would projects permitted under the General Order have a substantial adverse effect on a scenic vista? (Potentially Significant Impact)

Project Activity operation and maintenance could result in visual impacts to scenic vistas that would be significant. Visual impacts could be from ground disturbing earthwork; the presence of vehicles, personnel, and supplies in undeveloped areas; glare generated by reflections from metal and glass vehicle surfaces; dust, and introduction of high-intensity nighttime construction lighting.

Vegetation management would have significant aesthetic impact because the rights-of-way (ROW) would be managed more often or to a greater degree than present baseline conditions to ensure the powerlines have sufficient clearance above the vegetation per California Public Utilities Commission (CPUC) requirements. As a result, these ROW contain relatively short, uniform trees and shrubs that are often in contrast to the tall undisturbed forests adjacent to the ROW.

Most Project Activities would disturb the existing utility footprint where the baseline includes visual impacts, but Project Activities do have potential to expand the disturbed area in established ROWs or immediately adjacent areas. Project Activities may trench and use horizontal directional drilling for activities such as undergrounding power lines or installing culverts. These changes would temporarily affect limited areas within or immediately adjacent to the ROW. Project Activities may require area clearing to construct staging areas for vehicles and equipment. In addition, vegetation trimming, or removal may occur in areas where trenching is required. Revegetation of these areas can take several years, which would result in temporary, but significant impacts to scenic vistas. In addition, expanded clearance requirements might result in the need to replant disturbed areas with a different kind of vegetation, which may also result in significant impacts to scenic vistas.

The replacement and repair of aboveground structures would have relatively small footprints and would be consistent with existing overhead utilities. Mats may be used as temporary work areas for facilities in waters of the state. The use of mats would be a minor and temporary visual change. Construction crews would implement the mats in such a way to minimize damage to vegetation and thus limit visual damage.

Some Project Activities would not build new infrastructure, but instead upgrade preexisting equipment, such as reinforcing or upgrading wooden utility poles with light-duty steel poles. Upgraded light-duty steel poles would result in a permanent, but minor visual change in the landscape because they are a more reflective surface than wooden

poles. These permanent changes have a minor influence on the scenic vistas. These facilities were already present in the said scenic vista but may have an increase in glare from higher performing equipment.

The construction of new access routes would result in permanent additions to the landscape. Where these new access routes are constructed for wildfire mitigation, scenic vistas would have a potentially significant increased impacts similar to those discussed above. In areas already impacted by wildfires the incineration of green foliage leaves an ashy landscape; as a result, the construction of access routes in a burned landscape would not change the compromised aesthetic value. Project Activities including vegetation management, steel pole upgrades, and access road development and maintenance could result in impacts to scenic vistas would be **potentially significant.**

Mitigation

The General Order requirements for access road standards, and the mitigation measure listed below would reduce and minimize impacts to scenic vistas. Implementation of Mitigation Measure AES-1 would require Utility Services to design the project to minimize impacts to the site's visual character in sensitive landscapes and utilize, to the extent feasible, non-reflective material.

> **Mitigation Measure AES-01: Reduction of Visibility of New Structures in Sensitive Landscapes**
>
> The Utility Service would design new structures (e.g., interest poles, additional hardware and equipment being added to existing poles, supporting structures and stub poles, access roads etc.) to minimize the impact on the existing visual character and quality associated in sensitive landscapes (e.g., in, along, or near national, state, or local parks, recreation areas, forest, scenic routes, vista views, or similar). To the extent feasible and consistent with safety of visible guardrails, substations and switching stations, infrastructure would be composed of a non-reflective material to help blend the surfaces in with the surroundings. Utility Services would prioritize constructing access roads in locations not visible to the public.

Significance After Mitigation

Mitigation measure AES-01 would mitigate to less than significant for impacts from new structures, but it will not mitigate potentially significant impacts resulting from vegetation management. Where there are greater clearance requirements, scenic viewpoints may be impacted and replacement vegetation, which would be selected for maintaining greater clearance, may not reduce the significance of this impact in all cases. In addition, where are temporarily disturbed areas that are replanted, revegetation may take several years. Therefore, impacts would be **significant and unavoidable**.

Impact AES-2: Would projects permitted under the General Order substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Potentially Significant Impact)

Scenic highways extend throughout the Project Area. Since 1972, the CPUC has prohibited the installation of overhead distribution facilities within 1,000 feet of officially designated state or county scenic highways per California Public Utilities Code Section 320 (CPUC 2018).

Similar to Impact AES-1, Project Activities consist of the construction of new access roads, and operation and maintenance of existing utility infrastructure. Vegetation management could remove vegetation that contributes to a scenic highway's aesthetic value. Impacts from vegetation management would compromise the scenic value of state scenic highways. Given the CPUC's prohibition of building overhead facilities within 1,000 feet of state or county scenic highways, it is not anticipated that many access roads would be constructed through scenic resources. However, if a new access route was needed to reach other electrical utility infrastructure within 1,000 feet of state scenic highways, Project Activities could impact trees, rock outcroppings, and historic buildings.

The General Order requirements for construction BMPs, access road standards, and restoration plans would reduce and minimize impacts. Additionally, Mitigation Measure AES-1 would avoid and minimize impacts to state scenic highways and require Utility Services design projects to minimize impacts to the site's visual character in sensitive landscapes and utilize, to the extent feasible, non-reflective material, but Mitigation Measure AES-1 will not fully mitigate impacts from the construction of new roads and vegetation management.

As described above, Project Activity operation and maintenance could compromise the aesthetic appreciation of state scenic highways. Construction of new roads and vegetation management could contribute to a significant impact to the scenic value of state scenic highways. Therefore, impacts to state scenic highways would be **significant and unavoidable.**

Impact AES-3: Would projects permitted under the General Order in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? (Potentially Significant Impact)

As described above for Impact AES-1 and AES-2, Project Activities consist of the construction of new access roads, and operation and maintenance of existing utility infrastructure. The General Order would increase vegetation management and new

access roads could be installed in the ROWs. Construction of access roads would change views of the landscape and would likely be visible in the forest viewsheds due to tree removal. Project Activities including vegetation management, could have a potentially significant impact on the visual character of the work area.

The General Order requirements for construction BMPs, access road standards, and restoration plans would reduce and minimize impacts. Implementation of Mitigation Measure AES-1 also applies to this threshold and reduces impacts, but it will not mitigate impacts resulting from vegetation management.

Therefore, impacts would be **significant and unavoidable**.

Impact AES-4: Would projects permitted under the General Order create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Less-Than-Significant Impact)

Project Activities would not contribute substantial permanent new sources of light or glare. Project Activities may require use of additional lighting for urgent projects, but this need is very infrequent and would be used briefly. The replacement of wood poles with light-duty steel poles would contribute a new source of glare; however, these locations were already occupied by electrical facilities with similar infrastructure. Project Activities including vegetation management, could have a potentially significant impact on the visual character of the work area.

Mitigation
The General Order requirements for construction BMPs, access road standards, and restoration plans would reduce and minimize impacts. Implementation of Mitigation Measure AES-1 would require Utility Services to design the project to minimize impacts to the site's visual character in sensitive landscapes and utilize, to the extent feasible, non-reflective material.

Significance After Mitigation
Therefore, Project Activity impacts from reflective glares would be **less-than-significant**.

3.2 AGRICULTURE AND FORESTRY

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impacts
1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
3) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
4) Result in the loss of forest land or conversion of forest land to non-forest use?			X	

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impacts
5) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				X

3.2.1 Introduction

This section discusses agriculture and forestry resources in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, potential impacts may result in temporary impacts to forestry resources.

3.2.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to agriculture and forestry in the Project Area.

Federal

Clean Water Act: Section 404

The federal Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the US. The CWA serves as the primary federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands.

Waters of the US are areas subject to federal jurisdiction pursuant to CWA Section 404. Waters of the US are typically divided into two types: (1) wetlands and (2) non-wetland waters.

CWA Section 404 regulates the discharge of dredged and fill materials into waters of the US. Applicants must obtain a permit from the US Army Corps of Engineers for discharges of dredged or fill material into waters of the US, including wetlands, before proceeding with a proposed activity.

State

California Public Resources Code

The California Government Code contains the following definitions for compatible use land:

Section 51238(a) defines *compatible use land* as:

1. "Notwithstanding any determination of compatible uses by the county or city pursuant to this article, unless the board or council after notice and hearing makes a finding to the contrary, the erection, construction, alteration, or maintenance of gas, electric, water, communication, or agricultural laborer housing facilities are hereby determined to be compatible uses within any agricultural preserve.
2. No land occupied by gas, electric, water, communication, or agricultural laborer housing facilities shall be excluded from an agricultural preserve by reason of that use."

Clean Water Act: Section 401

Under CWA Section 401, project proponents for a federal license or permit to conduct activities which may result in the discharge of a pollutant into waters of the US must obtain certification from the state in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a Section 404 permit) must also comply with CWA Section 401.

Farmland Mapping and Monitoring Program

Established in 1982, Government Code Section 65570 mandates the Farmland Mapping and Monitoring Program to report on the conversion of farmland and grazing land. The Farmland Mapping and Monitoring Program is a nonregulatory program that provides data for use in planning for the present and future use of California's agricultural land resources. The data is a current inventory of agricultural resources. This data is for general planning purposes and has a minimum mapping unit of ten acres.

Forest Taxation and Reform Act 1976 (Z'berg-Warren-Keen-Collier)

Commercial timberlands are afforded protection through the state's Forest Taxation Reform Act of 1976, which mandates the creation of timberland preserve zones to restrict and protect commercial timber resources. The zone is established in conformance with the Forest Taxation Reform Act of 1976 (California Government Code Section 51100 et seq.).

California PRC Section 51104(g) defines a timberland preserve zone as an area that has been zoned pursuant to California Government Code Section 51112 or 51113 and is devoted to and used for growing and harvesting timber and compatible uses. In this

context, compatible uses include any use that "does not significantly detract from the use of the property for, or inhibit, growing and harvesting timber" (California Government Code Section 51104[h]).

Williamson Act

The California Land Conservation Act of 1965, commonly known as the Williamson Act, preserves agricultural and open-space land. It establishes a program of private landowner contracts that voluntarily restrict land to agricultural and open space uses. In return, Williamson Act parcels receive a lower property tax rate consistent with their actual use instead of their market value. Lands under contract may also support uses that are "compatible with the agricultural, recreational, or open-space use of [the] land" subject to the contract (California Government Code Section 51201[e]).

This provision to the Williamson Act states that the construction and maintenance of utilities shall maintain compatible uses within any agricultural preserve. The board of supervisors may impose conditions on lands or land uses within preserves to encourage compatible uses (California Government Code Section 51201[e]).

Local

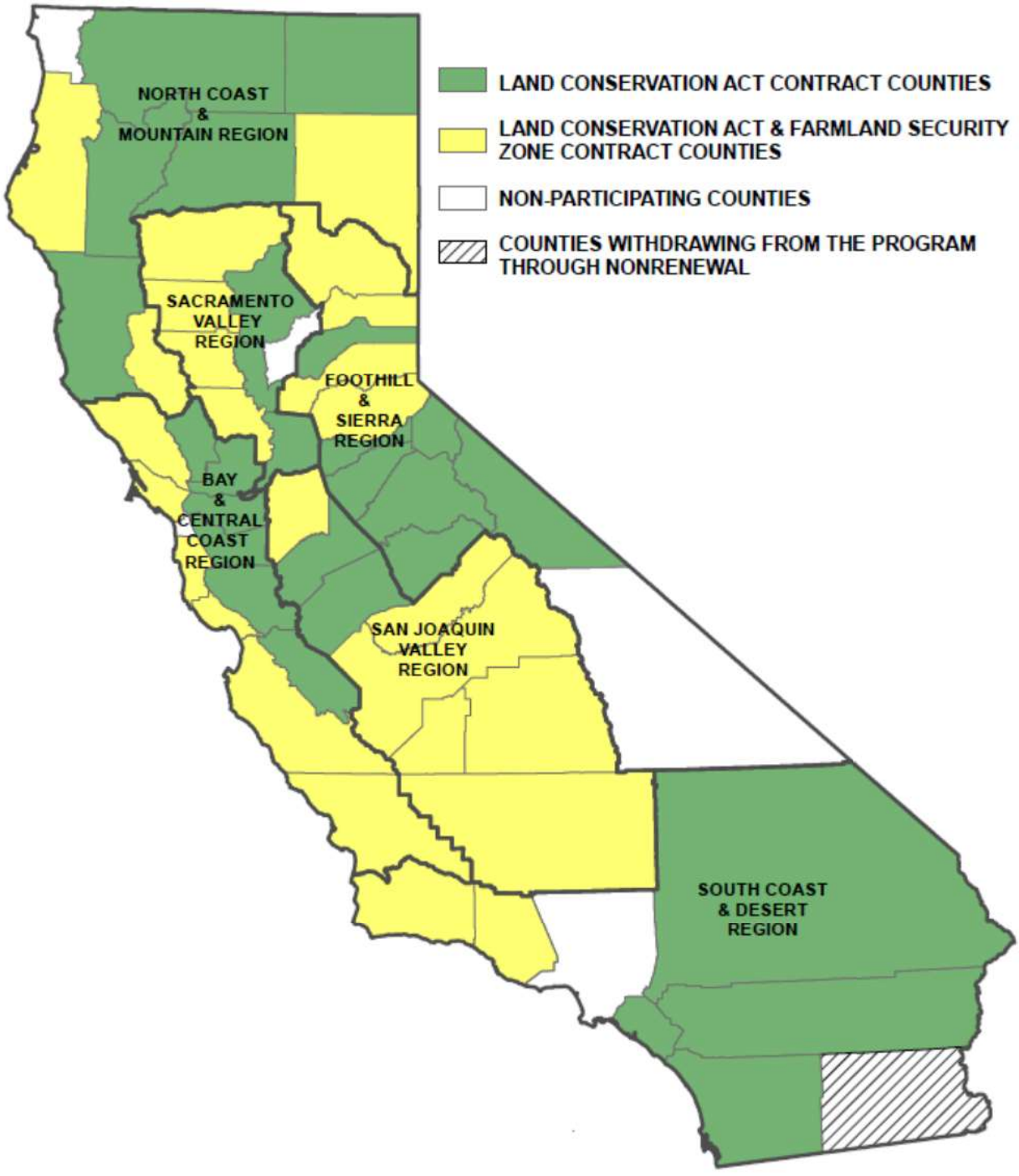
Types of local regulations relevant to agriculture and forestry include City and County General Plans, zoning ordinances, and policies adopted to protect agriculture and forestry resources. This EIR assumes that any vegetation treatments proposed by local or regional agencies under the General Order would be consistent with local plans, policies, and ordinances.

3.2.3 Environmental Setting

Agriculture and Williamson Act Lands

Agricultural land under Williamson Act contract includes both "prime" and "nonprime" lands. The California Land Conservation Act defines *prime agricultural land* as: (1) land with US Department of Agriculture Class I or II soils; (2) land with Storie Index soil rating 80 to 100; (3) land that has returned a predetermined annual gross value for 3 of the past 5 years; (4) livestock-supporting land with a carrying capacity of at least 1 animal unit per acre; or (5) land planted with fruit or nut trees, vines, bushes, or crops that have a non-bearing period of less than 5 years and that would normally return a predetermined annual gross value per acre per year during the commercial bearing period (Government Code Sections 51200–51207). *Nonprime* lands include pasture and grazing lands and other non-irrigated agricultural land with lesser quality soils. Depicted on the following page, Figure 3.2-1 contains a map of regional land ownership contracts (California Department of Conservation 2022). Below the figure, Table 3.2-1 reports the land categories acreages of the corresponding regional land ownership contracts.

Figure 3.2.1: California Department of Conservation: Williamson Act 2018-2019 Status Report Map of Regional and County Contracts



Source: Department of Conservation, 2022

Table 3.2-1: Williamson Act Reported Property Enrollment Acreages in 2020

Region	Standard Prime	Standard Nonprime	Super Urban Prime	Super Urban Nonprime	Super Nonurban Prime	Super Nonurban Nonprime	Total
North Coast and Mountain Region	602,752	1,393,536	0	1,750	133	180	2,002,151
Sacramento Valley Region	857,233	2,098,851	32,631	4,826	110,687	21,846	3,126,075
Foothill and Sierra Region	439,632	1,233,650	0	0	138	180	1,673,600
Bay and Central Coast Region	350,783	2,532,316	44,172	4,886	15,971	5,031	2,953,160
San Joaquin Valley Region	484,766	2,422,942	19,714	3,774	42,824	11,951	2,985,970
South Coast and Desert Region	733,003	957,962	11,102	1,800	1,166	7,415	1,712,586
Totals	3,468,169	10,639,256	107,619	17,036	170,920	50,403	14,453,542

Source: Williamson Act 2020 Status Report (Department of Conservation, 2022)

Forestry

Of the approximately 104 million acres in California, forestlands comprise 33 million acres. Federal agencies, including the USFS, US Bureau of Land Management, and National Park Service, own and manage 19 million acres (57% of California's forestland). State and local agencies own approximately 990,000 acres (3% of California's forestland). The remaining 13 million acres is owned by private landowners, Native American tribes, or private companies (40% of California's forestland).

3.2.4 Impact Analysis

Method of Analysis

Project Activity impacts on agriculture and forestry resources were qualitatively assessed based on professional judgment. The Project Area encompasses a legacy of disturbance from Utility Service operation and maintenance and wildfire mitigation activities. The analysis assumes that Utility Services will implement General Order requirements, mitigation measures (as applicable), and BMPs that comply with relevant

federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, an impact to agriculture and/or forestry resources is considered significant if projects permitted under the General Order would do any of the following:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract;
3. Conflict with existing zoning for, or causes rezoning of, forest land (as defined in California PRC Section 12220[g]), timberland (as defined by PRC Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g]);
4. Result in the loss of forest land or conversion of forest land to non-forest use; or
5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to a non-agricultural use or conversion of forest land to non-forest use.

Impacts and Mitigation Measures

Impact AG-1: Would projects permitted under the General Order convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use? (No Impact)

Project Activities permitted under the General Order would primarily occur within existing utility-owned properties or ROW and adjacent areas. Further, most work would be short-term. Because Project Activities are not anticipated to occur on farmland and would not necessitate a change in land use, Project Activities will result in no impact.

Impact AG-2: Would projects permitted under the General Order conflict with existing zoning for agricultural use, or a Williamson Act contract? (No Impact)

Electric facilities are compatible for use in agricultural preserves under Section 51238 of the California Government Code. As a result, no conflicts with existing zoning for agricultural use or Williamson Act contracts are anticipated, and therefore will result in no impact.

Impact AG-3: Would projects permitted under the General Order conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production? (No Impact)

Electric utility operation and maintenance activities have been conducted routinely for decades in locations that cross timberlands. While the scale of wildfire mitigation

throughout the state has increased in recent years, Project Activities covered by the General Order would primarily occur in a disturbed area within existing utility ROW, similar to existing operation and maintenance activities, or a postfire environment. As a result, there would be no need for rezoning. Therefore, there would be **no impact.**

Impact AG-4: Would projects permitted under the General Order result in the loss of forest land or conversion of forest land to non-forest use? (Less-Than-Significant Impact)

Project Activities authorized under the General Order may involve removal of vegetation adjacent to and beneath existing infrastructure per CPUC regulations. Such vegetation is unlikely to be regarded as forestland given its proximity to utility infrastructure. Vegetation management will not convert forestland or result in the loss of forestlands because the Utility Service ROW is not managed for forest-uses but is a preexisting, perpetually managed landscape. Therefore, there would be a **less-than-significant impact.**

Impact AG-5: Would projects permitted under the General Order involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? (No Impact)

Issuance of the General Order would not involve any other changes in the existing environment that could result in the conversion of farmland to a nonagricultural use or forest land to a non-forest use. Therefore, **no impact** would result.

3.3 AIR QUALITY

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Conflict with or obstruct implementation of the applicable air quality plan?			X	
2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?			X	
3) Expose sensitive receptors to substantial pollutant concentrations?			X	
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

3.3.1 Introduction

This section describes air quality conditions in the Project Area and the potential impacts of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, potential less-than-significant impacts include short term diesel exhaust emissions, temporary odors, and varying levels of critical pollutants similar to existing conditions that are expected to decline over time.

3.3.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to air quality in the Project Area.

The agencies of direct importance for air quality are the United States Environmental Protection Agency (USEPA), California Air Resources Board, and the regional air districts. The state is divided into Air Pollution Control Districts and Air Quality Management Districts, which are also called air districts. These agencies are county or regional governing authorities that have primary responsibility for controlling air pollution

from stationary sources. The USEPA has established federal air quality standards for which California Air Resources Board and regional air districts throughout the state have primary implementation responsibility.

Federal

Clean Air Act

The federal Clean Air Act and the 1990 Amendments govern air quality in the US and are administered by USEPA. The Clean Air Act authorizes the USEPA to set limits on the concentrations in the air of certain air pollutants and grants it the authority to place limits on emission sources. The USEPA implements a variety of programs under the Clean Air Act that focus on reducing ambient air concentrations of pollutants that cause smog, haze, acid rain, and serious health effects and on phasing out ozone-depleting chemicals.

National Ambient Air Quality Standards

As required by the Clean Air Act, the USEPA has established National Ambient Air Quality Standards for six major air pollutants. These criteria air pollutants consist of ozone (O_3); particulate matter, specifically particulate matter 10 (particulate matter with aerodynamic radius of 10 micrometers or less) and particulate matter 2.5 (particulate matter with aerodynamic radius of 2.5 micrometers or less); carbon monoxide (CO); nitrogen dioxide (NO_2); sulfur dioxide (SO_2); and lead (Pb). California also has established ambient air quality standards, known as the California Ambient Air Quality Standards, which generally are more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide (H_2S), vinyl chloride, and visibility-reducing particles. California Ambient Air Quality Standards are discussed in more detail below in the section titled “State Regulations.” The federal and state standards for criteria air pollutants are shown in Table 3.3-1.

A basic measure of air quality is whether an air basin is meeting the National Ambient Air Quality Standards and California Ambient Air Quality Standards. Areas that do not exceed these standards are designated as being in attainment; areas that exceed these standards are designated as nonattainment areas, and areas for which insufficient data are available to make a determination are designated unclassified. As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a state implementation plan that demonstrates the means by which it will attain the federal standards, and requires that a maintenance plan be prepared for each former nonattainment area for which the state subsequently has demonstrated attainment of the standards. The state implementation plan must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs, within the time frame identified in the state implementation plan.

The 1990 amendments to the Clean Air Act identify specific emission-reduction goals for areas not meeting the National Ambient Air Quality Standards. These amendments require both a demonstration of reasonable further progress toward attainment of goals and incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the Clean Air Act that would most substantially affect ongoing Project Activities include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Table 3.3-1: National and State Ambient Air Quality Standards

Contaminant Averaging Time	Federal Primary Standards	State Standards
Ozone 1-hour	—	0.09 ppm
Ozone 8-hour	0.070 ppm	0.070 ppm
Carbon monoxide 1-hour	35 ppm	20 ppm
Carbon monoxide 8-hour	9.0 ppm	9.0 ppm
Nitrogen dioxide 1-hour	0.100 ppm	0.18 ppm
Nitrogen dioxide annual mean	0.053 ppm	0.030 ppm
Sulfur dioxide 1-hour	0.075 ppm	0.25 ppm
Sulfur dioxide 24-hour	0.14 ppm	0.04 ppm
Sulfur dioxide annual mean	0.030 ppm	—
PM_{10} 24-hour	150 µg/m^3	50 µg/m^3
PM_{10} annual mean	—	20 µg/m^3
$PM_{2.5}$ 24-hour	35 µg/m^3	—
$PM_{2.5}$ annual mean	12 µg/m^3	12 µg/m^3
Sulfates 24-hour	—	25 µg/m^3
Lead 30-day average	—	1.5 µg/m^3
Lead rolling 3-month average	0.15 µg/m^3	—
Hydrogen sulfide 1-hour	—	0.03 ppm
Vinyl chloride 24-hour	—	0.010 ppm
Visibility-reducing particles 8 hour (10 am to 6 pm)	—	Visibility equivalent to 10-mile visual range

Source: California Air Resources Board, 2016

Abbreviations: ppm = parts per million
mg/m^3 = micrograms per cubic meter
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter

State

California Clean Air Act

In 1988, the state legislature adopted the California Clean Air Act, which established a statewide air pollution control program. The California Clean Air Act requires all air districts in the state to endeavor to meet the California Ambient Air Quality Standards by the earliest practical date. Unlike the federal Clean Air Act, the California Clean Air Act does not set precise attainment deadlines. Instead, the California Clean Air Act establishes increasingly stringent requirements for areas that would require more time to achieve the standards. California Ambient Air Quality Standards are generally more stringent than the National Ambient Air Quality Standards and incorporate additional standards for sulfates, hydrogen sulfide, visibility reducing particles, and vinyl chloride. The California Ambient Air Quality Standards and National Ambient Air Quality Standards are both listed in Table 3.3-1 above.

California Air Resources Board and regional air districts bear responsibility for achieving California's air quality standards, which are to be achieved through district-level air quality management plans that are incorporated into the state implementation plan. In California, the USEPA has delegated the authority to prepare state implementation plans to the California Air Resources Board, which, in turn, has delegated that authority to individual air districts. California Air Resources Board has established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving state implementation plans.

The California Clean Air Act designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts the authority to implement transportation control measures. The California Clean Air Act also emphasizes the control of "indirect and area-wide sources" of air pollutant emissions. The California Clean Air Act gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish transportation control measures.

Toxic Air Contaminant Regulation

California regulates toxic air contaminants primarily through the Toxic Air Contaminant Identification and Control Act of 1983 and the Air Toxics "Hot Spots" Information and Assessment Act of 1987. In the 1980s, California Air Resources Board established a statewide comprehensive air toxics program to reduce exposure to toxic air contaminants. The Toxic Air Contaminant Identification and Control Act of 1983 created California's program to reduce exposure to toxic air contaminants. The "Air Toxics "Hot Spots" Information and Assessment Act of 1987 supplements the Toxic Air Contaminant Identification and Control Act of 1983 by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

In August 1998, California Air Resources Board identified diesel particulate matter from diesel-fueled engines as toxic air contaminants. In September 2000, California Air Resources Board approved a comprehensive Diesel Risk Reduction Plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The plans' goal was to reduce diesel particulate matter (which is respirable particulate matter) emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. The plan identified 14 measures that California Air Resources Board would implement over the next several years.

Regional

The state is divided into 15 air basins, which are managed by 35 air districts (Figure 3.3-1). The air districts regulate air quality at the regional level. Air districts have local responsibility in overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required by CEQA. The air districts are also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws and for ensuring that National Ambient Air Quality Standards and California Ambient Air Quality Standards are met.

Each district has its own set of air quality thresholds and rules that apply to projects within its jurisdiction, including ongoing Project Activities. Air district rules and analysis guidance are outlined in their respective CEQA handbooks and associated guidance.

Figure 3.3-1 California Air Basins



3.3.3 Environmental Setting

Ambient air quality is generally affected by climatological conditions, the topography of the air basin, the type and amounts of pollutants emitted, and, for some pollutants, sunlight.

Climate, Meteorology, and Topography

Air quality is affected by the rate, amount, and location of pollutant emissions, and associated meteorological conditions that influence pollutant movement and dispersal. Atmospheric conditions (e.g., wind speed, wind direction, and air temperature) combined with local surface topography (e.g., geographic features such as mountains and valleys) determine how air pollutant emissions affect local air quality.

Because of the strong influence of the Pacific Ocean and mountains, variations in climate in California run in a general east-to-west direction. California's varied climate includes Mediterranean (most of the state), steppe (scattered foothill areas), alpine (high Sierra), and desert (Colorado and Mojave Deserts).

The Sierra Nevada, Coast, and Cascade Ranges act as barriers to the passage of air masses. During summer, California is protected from many of the hot, dry air masses that develop over the central US. Because of these barriers and California's western border on the Pacific Ocean, summer weather is generally milder in portions of the state than that in the rest of the country, and is characterized by dry, sunny conditions with infrequent rain.

In winter, the same mountain ranges prevent cold, dry air masses from moving into California from the central areas of the US. Consequently, winters in California are also milder than would be expected at its latitude.

Criteria Air Pollutants

In accordance with the federal and California Clean Air Acts, national and state ambient air quality standards, respectively, were developed for six common "criteria pollutants" to protect human health and welfare: carbon monoxide, lead, ozone, nitrogen dioxide, particulate matter, and sulfur dioxide. The health effects and other characteristics associated with the criteria pollutants are discussed below.

Carbon Monoxide (CO)

Carbon monoxide is an odorless, colorless gas that can impair transport of oxygen in the bloodstream, aggravate cardiovascular disease, and cause fatigue, headache, confusion, and dizziness. Carbon monoxide forms through incomplete combustion of fuels in vehicles, wood stoves, industrial operations, and fireplaces.

Ambient carbon monoxide concentrations normally are considered a local effect, and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence carbon monoxide concentrations. Under inversion conditions, carbon monoxide concentrations may be distributed more

uniformly over an area that may extend some distance from vehicular sources. When inhaled at high concentrations, carbon monoxide combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues.

Carbon monoxide concentrations have declined dramatically in California due to existing controls and programs, and most areas of the state have no problem meeting state and federal Carbon monoxide standards. Carbon monoxide measurements and modeling were important air quality monitoring measurements in the early 1980's, when Carbon monoxide levels were regularly exceeded throughout California. In more recent years, Carbon monoxide monitoring has not been a priority in most California air districts due to retirement of older polluting vehicles, reduced emissions from new vehicles, and improvements in fuels. The clear success in reducing Carbon monoxide levels is evident in the first paragraph of the executive summary of the California Air Resource Board's 2004 Revision to the California State Implementation Plan for Carbon Monoxide Updated Maintenance Plan for Ten Federal Planning Areas (California Air Resources Board 2004):

"The dramatic reduction in carbon monoxide levels across California is one of the biggest success stories in air pollution control. California Air Resources Board requirements for cleaner vehicles, equipment and fuels have cut peak Carbon monoxide levels in half since 1980, despite growth. All areas of the State designated as non-attainment for the federal 8-hour Carbon monoxide standard in 1991 now attain the standard, including the Los Angeles urbanized area. Even the Calexico area of Imperial County on the congested Mexican border had no violations of the federal Carbon monoxide standard in 2003. Only the South Coast and Calexico continue to violate the more protective State 8-hour Carbon monoxide standard, with declining levels beginning to approach that standard."

Lead

Lead has a range of adverse neurotoxin health effects and was formerly released into the atmosphere from leaded gasoline products. The phase-out of leaded gasoline in California reduced atmospheric lead concentrations. Lead emissions are not required to be quantified, as such, will not be further evaluated in this analysis.

Ozone (O_3)

Ozone is a colorless gas that has a pungent odor and causes eye and lung irritation, visibility reduction, and crop damage. A primary constituent of smog, ozone is formed in the atmosphere in the presence of sunlight by a series of chemical reactions involving oxides of nitrogen and reactive organic gases. Because these reactions occur on a regional scale, ozone is considered a regional air pollutant. Industrial fuel combustion, fugitive emissions from manufacturing processes and motor vehicles are primary sources of oxides of nitrogen and reactive organic gases.

Ozone concentrations tend to be higher in the late spring, summer, and fall, when long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone. Ground level ozone in conjunction with suspended particulate matter in the atmosphere leads to hazy conditions generally termed as “smog.”

Nitrogen Dioxide (NO_2)

Nitrogen dioxide is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of nitrogen dioxide. Nitrogen dioxide may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels.

Nitrogen dioxide acts as a respiratory irritant and is a precursor of ozone. Nitrogen dioxide is a major component of the group of gaseous nitrogen compounds referred to as oxides of nitrogen. Oxides of nitrogen are produced by fuel combustion in motor vehicles, industrial stationary sources (such as industrial activities), ships, aircraft, and rail transit. Typically, oxides of nitrogen emitted from fuel combustion are in the form of nitric oxide and nitrogen dioxide. Nitric oxide is often converted to nitrogen dioxide when it reacts with ozone or undergoes photochemical reactions in the atmosphere. Therefore, emissions of nitrogen dioxide from combustion sources are typically evaluated based on the amount of oxides of nitrogen emitted from the source.

Particulate Matter

Particulate matter is generally composed of particles in the air such as dust, soot, aerosols, fumes, and mists. Inhalable particulates of concern have an aerodynamic diameter of 10 micrometers or less. A subgroup of these particulates is fine particulates (particles with aerodynamic diameters less than 2.5 micrometers, particulate matter 2.5), which have very different characteristics, sources, and potential health effects than coarse particulates (particles with aerodynamic diameter between 2.5 to 10 micrometers). Sources of coarse particulates include windblown dust, agricultural fields, and dust from vehicular traffic on unpaved roads. Sources of particulate matter 2.5 include industrial combustion, vehicle exhaust, and residential wood-burning fireplaces. Particulate matter 2.5 is also formed in the atmosphere when gases including sulfur, nitrogen oxides, and volatile organic compounds emitted by combustion activities are transformed by chemical reactions in the air.

Particulate matter 10 affects breathing and the respiratory system, and can damage lung tissue, and contribute to cancer and premature death. Separate standards for particulate matter 2.5 were established in 1997 because these smaller particles can penetrate deep into the respiratory tract and cause their own unique adverse health effects.

Sulfur Dioxide (SO_2)

Sulfur dioxide is a colorless acidic gas with a strong odor. The major source of sulfur dioxide is fuel combustion of fossil fuels including coal, diesel, and biogas. Airborne concentrations of sulfur dioxide exceeding 2 parts per million (ppm) may affect breathing, irritate eyes, and may aggravate existing respiratory and cardiovascular disease. Sulfur dioxide is also a primary contributor to acid deposition, which causes acidification of lakes and streams, and can damage trees, crops, building materials, and statues. In addition, sulfur compounds in the air can contribute to visibility impairment.

Toxic Air Contaminants

Although National Ambient Air Quality Standards and California Ambient Air Quality Standards have been established for criteria pollutants, no ambient standards exist for toxic air contaminants. Many pollutants are identified as toxic air contaminants because they increase the risk of cancer, acute health risks, and chronic health risks. California Air Resources Board has consistently determined there are no levels or thresholds below which exposure is risk-free for toxic air contaminants that are known or suspected carcinogens. Individual toxic air contaminants vary greatly in the risks they present. At a given level of exposure, one toxic air contaminant may pose a hazard that is many times greater than another. Toxic air contaminants are studied by the California Office of Environmental Health Hazard Assessment.

Air toxics are generated by a variety of sources: stationary sources, such as dry cleaners, gas stations, auto body shops, and combustion sources; mobile sources, such as diesel trucks, ships, and trains; and area sources, such as farms, landfills, and construction sites. Adverse health effects of toxic air contaminants can be carcinogenic (cancer-causing), short-term (acute) noncarcinogenic, and long-term (chronic) noncarcinogenic. Direct exposure to these pollutants has been shown to cause cancer, birth defects, damage to the brain and nervous system, and respiratory disorders.

Existing Air Quality

California Air Resources Board and the regional air basins maintain a network of monitoring stations that record daily and annual pollutant concentrations. The local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the National Ambient Air Quality Standards and California Ambient Air Quality Standards. The four designations are defined as follows:

- Nonattainment: assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- Maintenance: assigned to areas where monitored pollutant concentrations have previously exceeded the standard but are no longer in violation of that standard.
- Attainment: assigned to areas where pollutant concentrations meet the standard over a designated period of time.
- Unclassified: assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

Table 3.3-2 provides the current National Ambient Air Quality Standards and California Ambient Air Quality Standards attainment status for the state's air basins. For this assessment, an air basin was considered non-attainment if any portion of the basin is designated non-attainment even if whole or portions of counties are in attainment or unclassified. Because of the differences between the National Ambient Air Quality Standards and California Ambient Air Quality Standards, the designation of non-attainment areas is different under the federal and state legislation.

Table 3.3-2: Federal and State Attainment Designations for Criteria Pollutants by Air Basin

Air Basin	Federal Non-attainment Designations—NAAQS[1]	State Non-attainment Designations—CAAQS[2]
Great Basin Valleys	PM_{10} (Mono Basin, Mammoth Lakes, Owens Valley)	Ozone
Lake County	Not applicable	Not applicable
Lake Tahoe	Not applicable	PM_{10}
Mojave Desert	Ozone (Antelope Valley and Western Mojave Desert)	Ozone, PM_{10}, H_2S (Searles Valley)
Mountain Counties	Ozone, $PM_{2.5}$ (portion of Southern Plumas County)	Ozone, $PM_{2.5}$ (Portola Valley), PM_{10}
North Central Coast	Ozone	PM_{10}
North Coast	Not Applicable	PM_{10} (excluding Sonoma and Trinity Counties)
Northeast Plateau	Not Applicable	Not Applicable
Sacramento Valley	Ozone, $PM_{2.5}$	Ozone, Particulate matter 2.5 (Sutter County), PM_{10}
Salton Sea	Ozone, PM_{10}, $PM_{2.5}$ (portion of southern Imperial County)	Ozone, PM_{10}
San Diego	Ozone	Ozone, $PM_{2.5}$, PM_{10}
San Francisco Bay Area	Ozone $PM_{2.5}$	Ozone, $PM_{2.5}$, PM_{10}
San Joaquin Valley	Ozone, $PM_{2.5}$	Ozone, $PM_{2.5}$, PM_{10}
South Central Coast	Ozone (eastern San Luis Obispo County)	Ozone, PM_{10}
South Coast	Ozone, $PM_{2.5}$ 5, Lead (Los Angeles County)	Ozone, $PM_{2.5}$, PM_{10}, Nitrogen dioxide (State Route 60 portion)

Source: California Air Resources Board, 2020
Notes: [1] National Ambient Air Quality Standards
[2] California Ambient Air Quality Standards
Abbreviation: $PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter
PM_{10} = particulate matter less than or equal to 10 microns in diameter

3.3.4 Impact Analysis

Methods for Analysis

Project Activity impacts to air quality resources were analyzed qualitatively using best professional judgement. The Project Area's environmental baseline encompasses air emissions from past electrical utility operation and maintenance and wildfire mitigation activities that were ongoing at the time of the Notice of Preparation, some of which, like routine inspections with no associated ground disturbances, would not require authorization from the Water Board because the activity does not result in the discharge of waste. In addition, in a post-wildfire environment, the changed baseline would reflect the air emissions from the ongoing or recent wildfire, in which case any air quality impacts are likely dwarfed by air emissions from the ongoing or recent wildfire. For these reasons, this analysis focuses on the impact on air quality from the increased pace and scale of wildfire mitigation activities. This analysis identifies potential impacts based on the predicted interaction between the affected environment and wildfire mitigation activities authorized under the General Order. The analysis assumes that Utility Services will implement General Order requirements, mitigation measures (as applicable) and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, an impact to air quality is considered significant if projects permitted under the General Order would:

1. Conflict with or obstruct implementation of the applicable air quality plan;
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the program region is non-attainment under an applicable federal or state ambient air quality standard;
3. Expose sensitive receptors to substantial pollutant concentrations; or
4. Results in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Impacts and Mitigation Measures

Impact AQ-1: Would projects permitted under the General Order conflict with or obstruct implementation of the applicable air quality plan? (Less-than-Significant Impact)

The air quality plan applicable to Project Activities will be dependent on each project's location. Air quality plan requirements are adopted by the governing air district and are enforced through district rules and regulations. Plan requirements account for anticipated increases in air pollutant emissions in respective regions.

Ongoing Project Activities would continue to generate varying levels of criteria pollutants and are a part of the environmental baseline. Project Activity emission sources could include:

a) Vehicles used for employee access to the site, inspections, patrols, and materials delivery
b) Heavy equipment for the facility maintenance
c) Painting and asphalt paving
d) Ground-disturbing activities (e.g., excavation)

No new, permanent, emission-generating facilities would be installed as part of Project Activities, and any replacement of existing facilities would typically be in-kind. Air emissions may result from equipment used during Project Activities, but Project Activities are short-term and ongoing. Activities permitted under the General Order are, therefore, not expected to have any additional long-term impact on air quality plan attainment. Emissions from Project Activities are expected to decline over time as Utility Services replace vehicles and equipment with more efficient, less polluting models. Therefore, the issuance of the General Order would not conflict with or obstruct the implementation of any applicable air quality plans, and this impact would be **less-than-significant**.

Impact AQ-2: Would projects permitted under the General Order result in 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? (Less-than-Significant Impact)

Project Activities can generate criteria pollutants from on-road vehicle movement, use of mobile and stationary equipment, painting and asphalt paving, and earthmoving (e.g., grading). In general, emissions would vary substantially depending on the level of activity, length of the activity, specific operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content.

By its very nature, regional air pollution is a cumulative impact. Past, present, and future emissions contribute to unfavorable air quality on a cumulative basis. No single emission source by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, an activity's individual emissions contribute to existing cumulative negative air quality impacts. The regional air districts for each Project Area have identified mass emission thresholds to evaluate impacts on air quality. The thresholds have been adopted to prevent further deterioration of ambient air quality, which is influenced by emissions generated by activities within a specific air basin. The thresholds, therefore, consider relevant past, present, and reasonably foreseeable future activities, including the maintenance and repair of electrical utility infrastructure. The air quality environmental baseline encompasses Utility Service operation and maintenance and wildfire mitigation. Furthermore, Project Activities are being conducted to reduce the potential for fire and its associated mass release of

emissions. Therefore, Project Activities would not result in a net increase of emissions, relative to existing conditions. Consequently, Project Activities authorized by the issuance of the General Order should not cause a cumulatively considerable net increase of criteria pollutants, and would have a **less-than-significant** impact.

Impact AQ-3: Would projects permitted under the General Order expose sensitive receptors to substantial pollutant concentrations? (Less-than-Significant Impact)

Project Activities would occur in areas that are adjacent to rural, urban, and suburban areas, potentially including some residential areas. While most of the Project Activities would primarily take place in ROW, residential properties are located close to ROW in many areas. Project Activities would predominantly be short-term and temporary. No new, permanent, criteria pollutant-generating facilities would be installed, and any replacement of existing facilities would typically be in-kind, likely resulting in an emissions reduction attributable to improvements in technology. Furthermore, Project Activities are being conducted to reduce the potential for fire and its associated mass release of emissions. Accordingly, health risks from exposure to emissions from Project Activities are anticipated to be similar to existing conditions and may decrease over time.

Project Activities could result in the generation of short-term diesel exhaust emissions from the use of on-site heavy-duty equipment and off-site vehicles required for materials deliveries and debris hauling. Particulate exhaust emissions from diesel-fueled engines (i.e., diesel particulate matter) were identified as a toxic air contaminant by the California Air Resources Board in 1998. The dose to which receptors are exposed is the primary factor affecting health risk from toxic air contaminants. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance or substances. According to the California Office of Environmental Health and Hazard Assessment, health risk assessments should be based on a 30-year exposure period when assessing toxic air contaminants (e.g., diesel particulate matter) that have cancer or chronic noncancer health effects (California Office of Environmental Health and Hazard Assessment 2015). However, such health risk assessments should be limited to the duration of the emission-producing activities.

Emission-generating activities required for Project Activities would be relatively small and short term and would be spread out throughout the Project Area. Consequently, individual receptors would not be exposed to elevated levels of diesel particulate matter for an extended period. The use of BMPs, including those to reduce construction vehicle and equipment exhaust emissions, would reduce the likelihood that receptors would be exposed to substantial pollutant concentrations. Therefore, Project Activities would result in a less-than-significant impact on nearby sensitive receptors due to exposure to pollutants.

Impact AQ-4: Would projects permitted under the General Order result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Less-than-Significant Impact)

Project Activities would generate mobile source emissions (e.g., from vehicles and the use of diesel equipment), which could result in the creation of objectionable odors. Such odors are temporary and generally do not occur at magnitudes that affect substantial numbers of people. Further, Project Activities would be spatially dispersed throughout the Project Area. Therefore, odors from these activities are not expected to affect a substantial number of people, and impacts would be less-than-significant.

3.4 BIOLOGICAL RESOURCES

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?		X		
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?		X		
3) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		X		

3.4.1 Introduction

This section describes biological resource conditions in the Project Area and the potential impacts of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. Potential impacts to federal wetlands, habitats for state and federal special status species, interference with native or migratory fish or wildlife species, and conflicts with local policies and ordinances are discussed below.

3.4.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to biological resources in the Project Area.

Federal

Bald and Golden Eagle Protection Act

The bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) are federally protected under the Bald and Golden Eagle Protection Act, which was passed in 1940 to protect the bald eagle and amended in 1962 to include the golden eagle (16 U.S Code Section 668 [a to d]). The Bald and Golden Eagle Protection Act prohibits take, possession, sale, purchase, barter, offering to sell or purchase, export or import, or transport of bald eagles and golden eagles and their parts, eggs, or nests without a permit issued by the US Fish and Wildlife Service (USFWS). The definition of “take” includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or

disturb. The Bald and Golden Eagle Protection Act prohibits any form of possession or take of either eagle species, and imposes criminal and civil sanctions, as well as an enhanced penalty provision for subsequent offenses. Further, the Bald and Golden Eagle Protection Act provides for the forfeiture of anything used to acquire eagles in violation of the statute. Regarding its prohibitions on possession, the statute exempts the use of eagles or eagle parts for exhibition, scientific, and Native American religious uses.

California Eelgrass Mitigation Policy

The California Eelgrass Mitigation Policy published by National Oceanic and Atmospheric Administration Fisheries in 2014 provides guidelines on mitigation and associated impacts to eelgrass (*Zostera marina* and *Z. pacifica*) beds associated with program activities. Eelgrass habitat is a Habitat Area of Particular Concern under the Magnuson-Stevens Act; under this policy, National Oceanic and Atmospheric Administration Fisheries recommends that there is no net loss of eelgrass habitat function in California. For impacts to eelgrass habitat, compensatory mitigation is recommended and can include comprehensive management plans, in-kind mitigation, mitigation banks and in-lieu-fee programs, and out-of-kind mitigation. Compensatory mitigation is recommended at a ratio of at least 1.2 to 1 mitigation area to impact area.

Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972, better known as the CWA, established the institutional structure for the USEPA to regulate discharges of pollutants into waters of the US, establish water quality standards, conduct planning studies, and fund grant projects. Congress has amended the CWA several times since 1972.

The USEPA has provided most states with the authority to administer many of the provisions of the CWA. In California, the State Water Board has been designated to develop and enforce water quality objectives and policies that protect water quality. The State Water Board has delegated specific responsibilities for development and enforcement actions to the individual Regional Water Board.

Section 303(d) of the CWA requires states, territories, and authorized tribes to develop a list of water quality–impaired segments of waterways and other water bodies under their jurisdiction. The law requires the jurisdictions to establish priority rankings for the waters they list and to develop action plans, known as total maximum daily loads, to improve water quality.

Section 404 of the CWA regulates the discharge of dredged and fill materials into waters of the US. Applicants must obtain a permit from the US Army Corps of Engineers for discharges of dredged or fill material into waters of the US, including wetlands, before proceeding with a proposed activity.

For descriptions of other parts of the CWA, see Section 3.10, Hydrology and Water Quality.

Coastal Zone Management Act

Congress recognized the importance of meeting the challenge of continued growth in the coastal zone by enacting the Coastal Zone Management Act (CZMA) in 1972. The CZMA, administered by the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management, provides federal incentives for states to manage and protect their coastal resources.

The CZMA outlines two national programs, the National Coastal Zone Management Program and the National Estuarine Research Reserve System. The Coastal Zone Management Program encourages states to prepare coastal zone management programs that meet specified requirements and submit them to the Office of Ocean and Coastal Resource Management for approval. In exchange for an approved program, the state becomes eligible for federal funding assistance, among other things. The overall objectives of the CZMA are to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone."

The CZMA requires project proponents proposing activities in the coastal zone that may affect coastal resources to obtain certification that the project is consistent with the state's coastal zone management program. California has an approved coastal zone management program. The CCC is the lead state agency responsible for implementing and enforcing the program. Established in the CZMA, the Coastal Zone encompasses 3 miles offshore and extends inland several hundred feet in developed areas and up to 5 miles inland in certain rural areas. The Coastal Zone is regulated through Local Coastal Programs developed by local governments in partnership with the CCC. The Local Coastal Programs set forth ground rules for future development and protection of coastal resources in the coastal zone. Development in the coastal zone generally requires a Coastal Development Permit that has been approved by the CCC and/or local government managing the Local Coastal Program.

The coastal zone established by the CZMA does not include San Francisco Bay, where development is regulated by the Bay Conservation and Development Commission (BCDC). In February 1977, the US Department of Commerce approved BCDC's coastal management program for the San Francisco Bay segment of the California coastal zone. The BCDC coastal management program is based on the provisions and policies of the McAteer-Petris Act (discussed under State regulations), the Suisun Marsh Preservation Act of 1977, the San Francisco Bay Plan, the Suisun Marsh Protection Plan, and BCDC's administrative regulations.

The CCC and local governments with assistance from California Department of Fish and Wildlife (CDFW), regulate Environmentally Sensitive Habitat Areas in the coastal zone; Environmentally Sensitive Habitat Areas are a type of sensitive natural community. While each Local Coastal Program can expand upon its definition of an Environmentally Sensitive Habitat Area, it largely consists of aquatic resources, rare habitats, and suitable habitat for special status species. Wetlands are also regulated

differently in the Coastal Zone. According to California Code of Regulations Section 13577(b), coastal zone wetlands require only one wetland indicator (i.e., dominance of hydrophytes, presence of wetland soils, or evidence of wetland hydrology) compared to the US Army Corps of Engineers' requirement of all three wetlands indicators; however, a feature's classification as a coastal zone wetland definition is subject to verification by the CCC or local government managing the local coastal program.

Executive Order 11990: Protection of Wetlands

Executive Order 11990 (May 24, 1977) established the protection of wetlands and riparian systems as the official policy of the federal government. The executive order requires federal agencies to consider wetland protection as an important part of their policies, and to act to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance their natural and beneficial values.

Executive Order 13112: Invasive Species

Executive Order 13112 (February 3, 1999) directs all federal agencies to prevent and control the introduction and spread of invasive nonnative species in a cost-effective, environmentally sound manner to minimize their effects on economic, ecological, and human health. The executive order was intended to build on existing laws, such as the National Environmental Policy Act, the Nonindigenous Aquatic Nuisance Prevention and Control Act, the Lacey Act, the Plant Pest Act, the federal Noxious Weed Act, and the federal ESA.

Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds

Executive Order 13186 (January 10, 2001) directs federal agencies that have, or are likely to have, a measurable negative effect on migratory bird populations to develop and implement a memorandum of understanding with USFWS to promote the conservation of migratory bird populations. The memorandum of understanding should include implementation actions and reporting procedures that would be followed through each agency's formal planning process, such as resource management plans and fisheries management plans.

Federal Endangered Species Act

The federal Endangered Species Act (ESA) applies to projects that may result in the "take" of fish or wildlife species that are federally listed as threatened or endangered. "Take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct" (US Code Title 16, Section 1532[19] [16 USC 1532(19)]). Federal regulations define "harm" as "an act which actually kills or injures wildlife." This definition includes significant habitat modification or degradation that results—or is reasonably expected to result—in death or injury to wildlife by substantially impairing essential behavioral patterns, including breeding, feeding, sheltering, spawning, rearing, and migrating (Code of Federal Regulations Title 50, Sections 17.3 and 222.102 [50 Code of Federal Regulations 17.3, 222.102]).

"Harass" is defined similarly broadly. Section 9 (2)(B) of the federal ESA prohibits the removal of federally listed plants from areas under federal jurisdiction and otherwise the purposeful destruction of listed plants in knowing violation of state laws. The law also applies to actions that are proposed to be authorized, funded, or undertaken by a federal agency and that may jeopardize the continued existence of a federally listed fish, wildlife, or plant species or may adversely modify or destroy designated critical habitat for such species.

If a project could result in the take of a federally listed species, either a habitat conservation plan and incidental take permit under federal ESA Section 10(a) or a federal interagency consultation under federal ESA Section 7 is required. Under the federal ESA, USFWS has jurisdiction over all listed terrestrial wildlife and plant species, as well as freshwater fish species and a few marine mammals (such as the California sea otter).

Under federal ESA Section 10, a habitat conservation plan and incidental take permit are the mechanism for authorizing take of listed species for projects authorized, funded, or carried out by a state or local government agency. The federal ESA Section 7 process, which includes a biological opinion and accompanying incidental take statement, is the mechanism for authorizing take of listed species for actions authorized, funded, or carried out by a federal agency. In addition, regardless of whether take may occur, a federal interagency consultation under federal ESA Section 7 is required if a federal agency action "may affect" a federally listed species or designated critical habitat.

Besides listing species within its jurisdiction as threatened or endangered, issuing incidental take permits, and conducting interagency consultations, USFWS designates "critical habitat" for threatened and endangered species, which the federal ESA defines as follows (16 US Code 1532[5][A]):

(1) Specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to a species' conservation, and those features may require special management considerations or protection; and
(2) Specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation of the species.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 US Code 651 et seq.), as amended in 1964, was enacted to protect fish and wildlife when federal actions control or modify a natural stream or body of water. The law requires federal agencies to consider the effect of water-related projects on fish and wildlife resources. The agencies must consult and coordinate with USFWS and state fish and game agencies to identify ways to prevent

the loss of and damage to fish and wildlife resources, and to further develop and improve these resources.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) of 1976 (as amended in 1996 and reauthorized in 2006) applies to fisheries resources and fishing activities in federal waters that extend to 322 kilometers (i.e., 200 miles) offshore (16 US Code Sections 1801 to 1884). Conservation and management of US fisheries, development of domestic fisheries, and phasing out of foreign fishing activities are the main objectives of the legislation.

Section 305(b)(2) to (4) of the Magnuson-Stevens Act outlines a process for National Oceanic and Atmospheric Administration Fisheries to comment on activities proposed by federal action agencies that may adversely impact areas designated as Essential Fish Habitat. Specifically, federal action agencies are required to consult with National Oceanic and Atmospheric Administration Fisheries on any action authorized, funded, or undertaken that may adversely impact Essential Fish Habitat. This consultation process is typically integrated into existing environmental review procedures in accordance with the National Environmental Policy Act, federal ESA, or Fish and Wildlife Coordination Act to provide the greatest level of efficiency. National Oceanic and Atmospheric Administration Fisheries must provide the federal action agency with Essential Fish Habitat consultation recommendations for any action that would adversely affect Essential Fish Habitat. These recommendations are advisory in nature.

Marine Mammal Protection Act

Under the Marine Mammal Protection Act (MMPA) of 1972 (as amended in 1994), it is unlawful to take or import marine mammals and marine mammal products (16 US Code Section 1371). The MMPA defines “take” as “the act of hunting, killing, capture, and/or harassment of any marine mammal; or the attempt at such.” The MMPA defines harassment as “any act of pursuit, torment or annoyance which has the potential to either injure a marine mammal in the wild, or disturb a marine mammal by causing disruption of behavioral patterns, which includes, but is not limited to, migration, breathing, nursing, breeding, feeding, or sheltering”. Under Section 101(a)(5)(D) of the MMPA, an Incidental Harassment Authorization Permit may be issued for activities other than commercial fishing that may impact small numbers of marine mammals. An Incidental Harassment Authorization Permit covers activities that extend for periods of no more than 1 year and that would have a negligible impact on the impacted species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements a series of international treaties to protect migratory birds. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds, providing that it shall be unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird” (16 US Code 703). This prohibition includes both direct and indirect acts,

although harassment and habitat modification are not included unless they result in the direct loss of birds, nests, or eggs. The current list of species protected by the MBTA was published in the Federal Register on November 1, 2013 (Volume 78, page 65844). In addition to the MBTA, Fish and Game Code Section 3513 states: "It is unlawful to take or possess any migratory nongame bird as designated in the federal MBTA (16 US Code Section 703 et seq.) before January 1, 2017, any additional migratory nongame bird that may be designated in that federal act after that date, or any part of a migratory nongame bird described in this section, except as provided by rules and regulations adopted by the US Secretary of the Interior under that federal act before January 1, 2017, or subsequent rules or regulations adopted pursuant to that federal act, unless those rules or regulations are inconsistent with this code."

Noxious Weed Act and Code of Federal Regulations (Title 7, Part 360)

The federal Noxious Weed Act (7 US Code 2801–2813) and Code of Federal Regulations Title 7, Part 360, are concerned primarily with the introduction of federally designated noxious weed plants or seeds across the borders of the US. The Noxious Weed Act also regulates the interstate movement of designated noxious weeds under the US Department of Agriculture's permit system.

State

California Coastal Act

The California Coastal Act (CCA), enacted in 1976, governs decisions of the CCC in review and issuance of coastal development permits. The CCA is the foundation of the California Coastal Management Program. The act defines the state's coastal management goals and policies, establishes the boundaries of the state's coastal zone, and creates governmental mechanisms for carrying out the management program. The CCC, or a city or county with delegated authority through a CCC-certified Local Coastal Program, has jurisdiction over development in the Coastal Zone. The Local Coastal Programs set forth ground rules for future development and protection of coastal resources in the coastal zone. Established in the CZMA, the Coastal Zone extends 3 miles offshore and inland several hundred feet in developed areas and up to 5 miles inland in certain rural areas. Development in the coastal zone generally requires a Coastal Development Permit that has been approved by the CCC or local government managing the Local Coastal Program.

The CCC and local governments, with assistance from CDFW, regulate Environmentally Sensitive Habitat Areas in the coastal zone; Environmentally Sensitive Habitat Areas are a type of sensitive natural community. While each Local Coastal Program can expand upon its definition of an Environmentally Sensitive Habitat Area, it largely consists of aquatic resources, rare habitats, and suitable habitat for special status species. Wetlands are also regulated differently in the Coastal Zone. According to California Code of Regulations Section 13577(b), coastal zone wetlands need to contain only one wetland indicator (i.e., dominance of hydrophytes, presence of wetland soils,

or evidence of wetland hydrology) compared to the US Army Corps of Engineers' requirement of all three wetlands indicators; however, a feature's classification as a coastal zone wetland definition is subject to verification by the CCC or local government managing the local coastal program.

California Department of Food and Agriculture Integrated Pest Control Branch Programs

The Integrated Pest Control Branch of the California Department of Food and Agriculture conducts a wide range of pest management and eradication projects as part of the Plant Health and Pest Prevention Services Division's Pest Prevention Program. Assessments and fees are collected for some program activities and services. The branch cooperates with other state agencies, federal and county agencies, research institutions, agricultural industries, and other nongovernmental organizations.

California Endangered Species Act

Sections 2050 through 2115.5 of the Fish and Game Code—California ESA—addresses threats to native fish, wildlife, and plant species. The California ESA states that these species are in danger of or threatened with extinction because their habitats are threatened with destruction, adverse modification, or severe curtailment, or because of overexploitation, disease, predation, or other factors. These species are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state, and the conservation, protection, and enhancement of these species and their habitat is of statewide concern (Fish and Game Code Section 2051).

The Fish and Game Code (Sections 2062 and 2067, respectively) defines "endangered" species as a native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes including loss of habitat, change in habitat, overexploitation, predation, competition, or disease. A "threatened" species as defined by the Fish and Game Code is a native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.

The California Fish and Game Commission is responsible for listing species under California ESA; CDFW implements California ESA, enforcing the act and issuing permits.

Similar to the federal ESA, California ESA in Fish and Game Code Section 2080 strictly prohibits the "take" and "possession," among other things, of any California native species or subspecies designated (i.e., listed) as an endangered or threatened or endangered fish, wildlife, or plant species or species, except as authorized under the Fish and Game Code. "Take" for purposes of California ESA is defined in Section 86 of the Fish and Game Code to mean hunt, pursue, catch, capture, or kill, or attempt to do so. The Fish and Game Code definition of take does not, in contrast to the federal ESA,

include “harm” or “harass.” Further, in contrast to federal ESA, the take prohibition under California ESA applies to candidate species pursuant to Fish and Game Code Section 2085. Under Section 2081 of the Fish and Game Code, an incidental take permit from CDFW is required for projects that could result in the “take” of a species that is state-listed as threatened or endangered, or that is a candidate for listing.

Section 2080 of the Fish and Game Code prohibits the export, import, take, possession, purchase, or sale of listed species, except as otherwise described in the California ESA, the Native Plant Protection Act, or the Desert Native Plants Act. Under Section 2080.1 of the Fish and Game Code, a project proponent can notify CDFW that the project has received an incidental take statement/permit under the federal ESA for species listed under both the federal ESA and California ESA, and can request a consistency determination. If CDFW determines that the conditions in the federal incidental take statement/permit are consistent with California ESA, it can issue a consistency determination, which allows incidental take under California ESA with the same provisions as those included in the federal incidental take statement/permit.

Sections 3503, 3503.5, 3505, 3511, 3513, 3800, 4700, 5050, and 5515 of the Fish and Game Code strictly prohibit the take of fully protected wildlife species. (Birds are addressed in Sections 3503–3800, mammals in Section 4700, reptiles and amphibians in Section 5050, and fish in Section 5515.) With certain narrow exceptions, CDFW cannot issue a take permit for fully protected species; therefore, avoidance measures may be required to avoid take.

California Fish and Game Code Section 1600

Fish and Game Code Section 1602 states that it is unlawful for any entity to “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake” without first notifying CDFW of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFW determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain a Lake and Streambed Alteration Agreement from CDFW, which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity or activities described in the notification (Fish and Game Code Section 1602.)

Sections 1600–1616 of the Fish and Game Code state that it is unlawful for any person or agency to do any of the following without first notifying CDFW:

a) Substantially divert or obstruct the natural flow of the bed, channel, or bank of any river, stream, or lake
b) Substantially change the bed, channel, or bank of any river, stream, or lake

c) Use any material from the bed, channel or bank of any river, stream, or lake
d) Deposit or dispose of debris, waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake in California

With certain exceptions, a lank and streambed alteration agreement must be obtained if CDFW determines that a project is expected to result in substantial adverse effects on existing fish and wildlife resources. The streambed alteration agreement must include measures to protect the affected fish and wildlife and associated riparian resources. The regulatory definition of a “stream” is a body of water that flows at least periodically or intermittently through a bed or channel having banks, and that body of water supports wildlife, fish, or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. California Department of Fish and Wildlife’s jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife.

California Food and Agriculture Code

More than 30 different laws address the state’s mandate to prevent the introduction and spread of injurious animal pests, plant diseases, and noxious weeds. These laws describe procedures and regulations related to the following topics:

a) Plant quarantines
b) Regulation of noxious weed seed
c) Emergency pest eradications to protect agriculture
d) Pests as public nuisances
e) Vectors of infestation and infection
f) The sale, transport, and propagation of noxious weeds
g) The protection of native species and forests from weeds

Most of these laws and their associated regulations (California Code of Regulations Title 3) are enforced by the California Department of Food and Agriculture.

California Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code codify the Native Plant Protection Act of 1977, which is intended to preserve, protect, and enhance endangered or rare native plants in the state. Under Section 1901, a species is endangered when its prospects for survival and reproduction are in immediate jeopardy from one or more causes. A species is rare when, although not threatened with immediate extinction, it is present in such small numbers throughout its range that it may become endangered if its environment worsens.

The California Fish and Game Commission exercises authority to designate native plants as rare under the Native Plant Protection Act and, for endangered plants, both under the Native Plant Protection Act and California ESA. California Department of Fish and Wildlife, like California ESA, enforces the Native Plant Protection Act and exercises related permitting authority by regulation, as well as through complimentary regulations

governing CDFW's incidental take permitting program under California ESA (See California Code of Regulations Title 14, Sections 783.0–783.8 and 786.9.) Also similar to California ESA, the take and possession, among other things, of native rare and endangered plants protected under the Native Plant Protection Act is prohibited, except as authorized by law. In addition, there are a few exceptions to the Native Plant Protection Act's take prohibition, including for agricultural and nursery operations; emergencies; and when CDFW is properly notified by a landowner, agency, public utility, or private utility, of proposed vegetation removal from canals, roads, building sites, changes in land use, and other actions performed by utilities and agencies under the obligation of providing public services.

The relationship between California ESA and the Native Plant Protection Act is complex and subject to legal debate. Generally speaking, a California ESA Section 2081 permit for incidental take of listed threatened and endangered plants is required, with certain exceptions. Because California ESA does not cover rare plants, mitigation measures for impacts on rare plants are specified in a formal agreement between CDFW and the project proponent.

California Wetlands Conservation Policy

The California Wetlands Conservation Policy was adopted in 1993 (Executive Order W-59-93). The goal of this policy is to ensure no overall net loss of wetlands and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.

Clean Water Act, Section 401

Under CWA Section 401, project proponents for a federal license or permit to conduct activities which may result in the discharge of a pollutant into waters of the US must obtain certification from the state in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect state water quality (including projects that require federal agency approval, such as issuance of a Section 404 permit) must also comply with CWA Section 401.

Fish and Game Code Designated Fully Protected Species

Fish and Game Code Sections 3511, 4700, 5050, and 5515 designate a number of birds, mammals, reptiles and amphibians, and fish, respectively, as fully protected species. Take and possession of fully protected species is prohibited under the Fish and Game Code and may not be authorized by the Department, except in limited circumstances. For example, the Department may authorize take of a fully protected species by permit for necessary scientific research, including efforts to recover the species.

Fish and Game Code Safe Harbor Agreements

Fish and Game Code Sections 2089.2 through 2089.26 allow CDFW to authorize incidental take of a species listed as endangered, threatened, candidate, or a rare plant, through a Safe Harbor Agreement if implementation of the agreement is reasonably expected to provide a net conservation benefit to the species, among other provisions. Safe Harbor Agreements are intended to encourage landowners to voluntarily manage their lands to benefit California ESA-listed species without subjecting those landowners to additional regulatory restrictions as a result of their conservation efforts. In addition, at the end of the agreement period, participants may return the enrolled property to the baseline conditions that existed at the beginning of the Safe Harbor Agreement.

McAteer-Petris Act

The McAteer-Petris Act of 1965 (Government Code Section 66000 et seq.), as amended, directs the San Francisco BCDC to exercise its authority to issue or deny permit applications for placing fill, extracting materials, or changing the use of any land, water, or structure within the area of its jurisdiction, in conformity with the provisions and policies of both the McAteer-Petris Act and the San Francisco Bay Plan. San Francisco BCDC jurisdiction consists of all areas subject to tidal action within the San Francisco Bay, a 100-foot-wide band along the San Francisco Bay shoreline, salt ponds diked off from the San Francisco Bay, managed wetlands that have been diked off from San Francisco Bay, and certain waterways. State law requires that project sponsors proposing to fill or extract materials within the San Francisco Bay apply for a San Francisco BCDC permit, which addresses review by a variety of local agencies, as well as the San Francisco Bay Regional Water Board, US Army Corps of Engineers, and CDFW.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act (Fish and Game Code Sections 2800–2835) details the state's policies on the conservation, protection, restoration, and enhancement of the state's natural resources and ecosystems. This law identifies conservation planning as an officially recognized policy that can be used to eliminate conflicts between protection of the state's natural resources and the need for growth and development. The law also promotes conservation planning to enhance coordination and cooperation among private interests, agencies, and landowners, and aid in multispecies, multihabitat management. Where CDFW approves a natural community conservation plan, it may authorize by permit the otherwise prohibited taking of any covered species whose conservation and management is provided for in the plan, including state-listed species and fully protected species. The Natural Community Conservation Planning Act provides an alternative means for CDFW to authorize the incidental take of species that are listed as threatened or endangered or are candidates for listing under California ESA.

Porter-Cologne Water Quality Control Act

The State Water Board, through its nine Regional Water Boards, regulates waters of the state through the Porter-Cologne Water Quality Control Act. Waters of the state are defined as any surface water or groundwater, including saline waters, within the boundaries of the state, as explicated in the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (California State Water Resources Control Board 2021). The Water Boards may exert jurisdiction over waters of the state regardless of federal jurisdictional status. The Porter-Cologne Water Quality Control Act also charges the Water Boards with establishing and protecting beneficial uses of waters of the state. These beneficial uses may include protection for uses of water that support terrestrial ecosystems, aquatic ecosystems, and habitat for special-status species.

Sections of the California Fish and Game Code Pertaining to Invasive and Noxious Plant Species

At least five laws and their associated regulations address or relate to invasive and noxious plant species. The applicable code sections include Fish and Game Code Sections 2080–2089, 2118, 2270–2272, 2300, 6400–6403, and 15000 et seq. The intent of these laws is to regulate the importation and transportation of live wild animals and plants, restrict placement of live aquatic animals or plants in state waters, and regulate the operation of aquaculture industries. CDFW is responsible for implementing these laws.

Regional and Local

The Project Area encompasses areas throughout California. Each county and city have local regulations and a general plan with unique goals and policies that guide development and encourage the consideration of biological resources. County-specific regulations are implemented in accordance with federal and state regulations.

3.4.3 Environmental Setting

California contains a diversity of flora and fauna across a broad range of physiographic regions, containing a heterogeneity of soil types, slopes, and microclimates. The California Floristic Province is considered one of the world's 25 biodiversity hotspots because of its host of endemic species (Meyers et al. 2000); the California Floristic Province primarily occurs in California, but also partially extends into Oregon and Baja California, Mexico.

The authority in California's plant taxonomy, the Jepson eFlora (2022), organizes California into three broadly grouped Provinces. The Provinces are composed of Regions and smaller Subregions; Subregions are not discussed further due to the programmatic nature of the General Order. The Jepson eFlora's organization of California was delineated according to trends and distinctions in the state's topography, climate, and vegetation. Accordingly, California contains the California Floristic

Province, the Great Basin Province, and Desert Province (Jepson eFlora 2022). The California Floristic Province consists of the following Regions: Northwestern California Region containing the North Coast, northern Coast Ranges, and Klamath Ranges; Cascade Ranges Region containing the mountain's foothills and high mountains; Sierra Nevada Region containing its foothills and high mountains; Great Central Valley Region containing the Sacramento and San Joaquin Valleys; Central Western California Region containing the San Francisco Bay, Central Coast, and central Coast Ranges; Southwestern California Region containing the South Coast, Channel Islands, Transverse Ranges, San Gabriel Mountains, San Bernardino Mountains, Peninsular Ranges, and San Jacinto Mountains. The Great Basin Province contains the Modoc Plateau Region and East of Sierra Nevada Region. The Desert Province contains the Mojave Desert Region and Sonoran Desert Region. These Regions contain a myriad of plant communities, including but certainly not limited to redwood forest, vernal pool, saltbush scrub, California pitcher plant fen, manzanita chaparral, and serpentine endemic communities, each supporting a host of endemic plant, wildlife, and fishery species.

California's diverse landscape and Mediterranean climate enabled a mass diversification of its biota. A complete list of amphibians, reptiles, birds, and mammals in California is maintained by CDFW (CDFW 2016). The most current lists of plant and animal taxa with special status is found on CDFW's *Special Plant and Animals Lists* online (CDFW 2022a). Special-status species occurrence and location information is documented on California Natural Diversity Database (CDFW 2022b). The California Natural Diversity Database is a continually refined and updated computerized inventory of special-status species location and occurrence information. Due to habitat conversion and development many species have become rare, threatened, or endangered. Presently, CDFW reports 285 special-status plant species and subspecies that are federally listed, state listed, or have a California Rare Plant Rank, and 177 wildlife species that are federally or state listed (CDFW 2022a).

Special-Status Species

Special-status species are species that are legally protected or otherwise considered sensitive by federal or state resource agencies (federal ESA, California ESA, or Species of Special Concern) or by local resource agencies. These species, subspecies, distinct population segments, or varieties fall into one or more of the following categories, regardless of their legal or protection status:

a) Species officially listed by the federal government as threatened or endangered
b) Species officially listed by the State of California as threatened, endangered, or rare (plants only)[2]
c) Candidates for state listing as threatened or endangered, and species that are formally proposed for federal listing or are candidates for listing as threatened or endangered
d) Species that meet the definitions of rare, threatened, or endangered under State CEQA Guidelines Section 15380
e) Species legally designated as fully protected species (e.g., California Fish and Game Code Section 3511 [birds], Section 4700 [mammals], and Sections 5050 [reptiles and amphibians] and 5515 [fish])
f) Species afforded protection or special consideration by local planning documents
g) Species, subspecies, and varieties of plants considered by CDFW and the California Native Plant Society to be "rare, threatened, or endangered in California". The California Native Plant Society's assigns the following California Rare Plant Rank categories for plant species of concern (California Native Plant Society 2022a):[3]
    1A) Plants presumed to be extinct in California.
    1B) Plants that are rare, threatened, or endangered in California and elsewhere.
    2) Plants that are rare, threatened, or endangered in California but more common elsewhere.

---

[2] A species plant is: "Rare" when a plant taxon is either:
(A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or
(B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal ESA.

[3] These California Rare Plant Rank categories are the result of a collaborative effort by California Native Plant Society and CDFW. The California Rare Plant Rank is based on reviews by numerous qualified botanical experts and provides a source of substantial evidence used by lead agencies to determine what plants meet the definition of endangered, rare, or threatened species, as described in Section 15380 of the State CEQA Guidelines. For purposes of this analysis, the most relevant categories are California Rare Plant Ranks1 and 2.

3) Plants about which more information is needed (a review list). Many meet the definition of California ESA and are eligible for state listing.
4) Plants of limited distribution (a watch list). Some meet the definition of California ESA and are eligible for state listing. Evaluation of a taxon's special status should consider local significance, whether the occurrence is the type locality, if the occurrence is at the edge of its range, if the taxon's occurrence is especially uncommon, if the taxon has suffered recent heavy losses, or if the suitable habitat is in decline. Not all plant taxa in this category may be considered special-status plants.

Critical Habitat

The USFWS designates critical habitat for terrestrial wildlife. Critical habitat encompasses a geographic area that is considered essential for the conservation of a threatened or endangered species that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species, but that will be needed for its recovery.

A designation of critical habitat affects activities performed by federal agencies or that involve a federal permit, license, or funding, and that are likely to destroy or adversely modify the area of critical habitat.

Sensitive Natural Communities

Sensitive natural community is an encompassing term for habitats of special concern regulated by different resource agencies. The CCC and Local Coastal Programs regulate Environmentally Sensitive Habitat Areas, which generally consists of aquatic resources, rare habitats, and suitable habitat for special status species, but each Local Coastal Program can expand of their definition.

Sensitive natural communities regulated by the CDFW include sensitive vegetation alliances and riparian habitat per Section 1602 of the California Fish and Game Code. CDFW maintains a list of common and sensitive natural communities native to California (2022c) according to the classifications and terminology (i.e., vegetation alliance) described in the Manual of California Vegetation (California Native Plant Society 2022b); vegetation alliances comprise a habitat's dominant species. Sensitive natural communities haven't been tracked on the California Natural Diversity Database since the mid-1990s due to lack of funding. Furthermore, the California Natural Diversity Database sensitive natural communities use nomenclature described by Holland (1986), which is not consistent with the state's current vegetation classification standards; the legacy data from California Natural Diversity Database is being added to Biogeographic Information and Observation System (BIOS) (CDFW 2022d). Sensitive natural communities are presently mapped as a part of the Vegetation Classification and Mapping Program (CDFW 2022e), a statewide vegetation mapping program, which are added to their broader database, BIOS upon completion and verification of the mapping.

The National Wetlands Inventory provides maps and information on the status, extent, characteristics, and functions of wetland, riparian, deepwater, and related aquatic habitats in priority areas to promote the understanding and conservation of these resources (USFWS 2022). While the National Wetlands Inventory cannot be used to delineate wetlands, it does offer planners a view of the broad types of wetlands and riparian vegetation that could occur in a proposed work area.

Utility Services should review Vegetation Classification and Mapping Program, BIOS, National Wetlands Inventory, and local or regional vegetation maps to help identify sensitive natural communities that could occur in a proposed work area.

3.4.4 Impact Analysis

Methods of Analysis

Project Activity impacts to biological resources were qualitatively assessed based on best professional judgment. The Project Area encompasses a legacy of disturbance from Utility Service operation and maintenance and wildfire mitigation activities. Project Activities permitted under this General Order would potentially cause additional disturbance due to the nature of enhanced wildfire prevention and post-fire response. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities related to the proposed project. This section describes impacts in terms of location, context, duration, and intensity, and recommends mitigation measures, when necessary, to avoid or minimize impacts. The analysis assumes that Utility Services will implement General Order requirements, mitigation measures (as applicable), and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, an impact to biological resources is considered significant if projects permitted under the General Order would do any of the following:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.
3. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impacts and Mitigation Measures

For impacts 1 and 2, the following General Order requirements will avoid or minimize impacts to Biological Resources:

- **Access Route Standards** – If not properly designed and maintained, unpaved access routes can be a major source of sediment and other pollutants to surface waters. These standards ensure that access routes are designed and maintained in a manner that will minimize erosion and sedimentation. Such standards include installation of drainage structures on the route surface that hydrologically disconnect road runoff from waterbodies.
- **Construction Best Management Practices** – requires implementation of appropriate BMPs to prevent construction activity impacts on natural resources, including structural controls to prevent and reduce the discharge of pollutants from runoff, spillage or leaks, and waste disposal. Best management practices also include non-structural controls such as scheduling construction to avoid special status species impacts and preserving existing vegetation.
- **Dewatering** – If not properly designed and installed, temporary stream diversions and dewatering structures have the potential to alter flow and contribute pollutants to waters of the state. Implementation of these conditions ensures dewatering and diversion activities are conducted in a manner that will have minimal impacts to aquatic life, stream flow and water quality. If a project involves installation of temporary diversions or impoundments for the purpose of dewatering the work area, a dewatering plan must be provided. The dewatering plan should include design criteria for dewatering structures, a description of appropriate BMPs, and a plan for water quality monitoring upstream and downstream of the in-water work area.
- **Environmental Awareness Training** – requires that someone knowledgeable about state and federal laws related to the protection of natural resources within the Project Area (i.e., water quality, special status species, and tribal cultural resources) train all onsite personnel on how to identify and protect resources in accordance with applicable General Order requirements and implement BMPs. At least one person knowledgeable about the protection of resources within the Project Area must be onsite for the duration of active construction.
- **Herbicide Application** – Herbicides have the potential to adversely impact non target species and discharge to waters of the state if not properly applied. The intent of the herbicide application conditions is to ensure that herbicides are

applied in a manner that would not adversely impact water quality and sensitive species. For example, the General Order prohibits herbicide application during high winds in order to prevent the spread of herbicides to non-target species.

- **Preventing Spread of Invasive Species** – Construction equipment and vehicles have the potential to spread invasive species from one work site to another. Related conditions ensure construction equipment and vehicles are properly inspected and cleaned prior to entering or leaving the work area to reduce the chance of spreading invasive species.
- **Restoration Plans** – Projects have the potential to adversely impact the environment even after construction activities are complete if the project site is not appropriately restored. The intent of this requirement is to ensure that project areas are fully restored to pre-existing conditions after construction activities are complete. Restoration includes stabilizing disturbed areas, replanting native vegetation, regrading slopes to pre-construction contours, and removing all construction equipment.
- **Vegetation Management** – Vegetation management activities have the potential to discharge waste to waters of the state. The intent of vegetation management conditions is to ensure that vegetation management activities are conducted in a manner that minimizes impacts to water quality within the Project Area. For example, using wood chips on slopes steeper than 30% within 100 feet of waters of the state is prohibited under the General Order.

In addition, in some instances, other State or Regional Water Board permits may be required for Project Activities. For example, the Construction General Permit establishes erosion and sediment control standards for activities that disturb over an acre of soil. Collectively, these requirements will avoid and minimize impacts to Biological Resources from Project Activities.

Impact BIO-1: Would projects permitted under the General Order have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS? (Less-Than-Significant with Mitigation)

Project Activities have been conducted for decades and implementation of the General Order would not change the current baseline conditions of the sensitive natural communities within and surrounding the utility infrastructure. Nonetheless, one of the purposes of the General Order is to facilitate increasing the pace and scale of wildfire mitigation activities, which may expand the current footprint or disturb the existing footprint. Both operation and maintenance and wildfire mitigation activities could result in potentially significant impacts to special-status species.

Project Activities could directly harm special-status species, degrade their suitable habitat, or remove the habitat together. Special-status wildlife could be crushed by heavy equipment. Special-status plants could be flattened by heavy equipment, trimmed for vegetation management, sprayed with herbicide, or removed from the work area.

Wetlands could be compromised from heavy equipment puncturing impermeable layers, eroding sediment, and excavating and altering the soil strata; these impacts could then compromise the feature's resulting hydrology, which could make the feature no longer suitable for special-status species. Project activities like road development and facility upgrades could impact wetland hydrology through altering a feature's microtopography conducive of inundation or modifying the water table.

In addition, site access development/maintenance could contribute significant erosion and sedimentation into waters of the state, which could choke out native species and compromise the water's function. Herbicide application could drift into unintended habitat, spill into waters of the state, or poison special-status species. In-water work could block spawning routes or dewater refugia, killing anadromous fish species or damage their habitat. Project activities could disperse invasive plant seeds into disturbed soils and facilitate an infestation that could out compete the native biota. Vehicles and other equipment could discharge hazardous materials into the aquatic resources, including but not limited to fuels and lubricants. Therefore, Project Activities could have a potentially significant impact on special-status species.

Mitigation

The General Order requirements for environmental training, vegetation management, herbicide application, and preventing the spread of invasive species along with the mitigation measure listed below is designed to avoid and minimize impacts to special-status species. Mitigation Measure BIO-1 requires Utility Services to consult with the applicable agencies for potential impacts to special-status species, which would entail quantifying impacts, permit enrollment, permit condition implementation.

Mitigation Measure BIO-1: Agency Consultation, Permitting, and Mitigation

If sensitive biological resources occur or have potential to occur in the Project Area, the Utility Service would be required to consult with the applicable regulating agency or agencies to acquire permits, implement mitigation, and coordinate to avoid conflict with existing Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans. The regulatory agencies would likely require protocol surveys to qualify and quantify the extent of the sensitive biological resources in the Project Area. Permit conditions would likely require Utility Services to install resource-specific buffers in the Project Area prior to ground disturbance. Mitigation for Utility Services' impact to sensitive biological resources could include purchasing mitigation bank credits and/or enhancing or preserving existing populations or habitat in perpetuity.

Utility Services would be required to acquire a habitat conservation plan and incidental take permit under federal ESA Section 10(a) or a federal interagency consultation for an incidental take permit under ESA Section 7 from USFWS for impacts to federally listed species. Utility Services would be required to acquire

an incidental take permit pursuant to Fish and Game Code 2081 from CDFW for impacts to state listed species. Utility Service impacts to waters of the US could require a CWA Section 404 permit from the US Army Corps and a Section 401 WQC from the State or Regional Water Board. Project Activity impacts to aquatic resources that are only under state jurisdiction could require Utility Services to acquire waste discharge requirements (WDR) from the State or Regional Water Board. Project Activity impacts to streambeds and lakes could require Utility Services acquire a Lake and Streambed Alteration Agreement from CDFW. Utility Services could be required to acquire a Coastal Development Permit from the CCC or local government managing the Local Coastal Program for Project Activities in the coastal zone. Project Activities in the Bay Area could require Utility Services acquire permits from the San Francisco Bay Conservation and Development Commission. Utility Services would be subject to local agency regulations.

Significance After Mitigation
Implementation of Mitigation Measure Bio-1 along with General Order requirements will reduce impacts to special-status species. Project Activities would be conducted in a manner that avoids and minimizes impacts to the extent feasible. As a result, Project Activity impacts to special status species would be **less-than-significant with mitigation**.

Impact BIO-2: Would projects permitted under the General Order have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS? (Less-Than-Significant with Mitigation)
Project Activities, such as vegetation management in riparian zone, could impact sensitive natural communities, compromise the habitat's function, or remove the habitat all together. This could include habitat and communities regulated by CDFW, Environmentally Sensitive Habitat Areas regulated by CCC or local government that manage the Local Coastal Program, and other habitats regulated in local ordinances.

While many Project Activities have been ongoing, and the continuation of these activities does not represent a drastic change to the baseline conditions, there is a need to increase the pace and scale of wildfire mitigation, which may expand the current footprints or increase disturbance in the existing ROW. Both operation and maintenance, and wildfire mitigation activities could result in potentially significant impacts to sensitive natural communities.

Sensitive natural community vegetation could be crushed by heavy equipment, trimmed for vegetation management, or sprayed with herbicide. Sensitive wetland soils could be compromised from heavy equipment puncturing impermeable layers, eroding sediment, and excavating and altering the soil strata; these impacts could then compromise the feature's resulting hydrology, which could make the feature no longer suitable for the

species that comprise the sensitive natural community. The sensitive natural community's local topography and hydrology could be modified by heavy equipment transport, road construction, and utility repairs. In addition, site access development/maintenance could contribute significant erosion and sedimentation into waters of the state, which could choke out native species and compromise the feature's function. Improperly cleaned equipment could disperse invasive plant seeds into disturbed soils and facilitate an infestation that could out compete the native flora. Vehicles and other equipment could discharge hazardous materials into the wetlands, including but not limited to fuels and lubricants. These and other Project Activities could result in the loss of the sensitive natural communities or substantially impact the ecological function. As a result, impacts to sensitive natural communities could be potentially significant.

Mitigation

Implementation of Mitigation Measure Bio-1 would require that Utility Services avoid, reduce, and minimize impacts to sensitive natural communities. The mitigation measure requires agency consultation for potential impacts to sensitive natural communities, which would entail quantifying impacts, permit enrollment and condition implementation, and mitigating the impacts to sensitive natural communities. Additionally, the General Order requirements for environmental training, vegetation management, herbicide application, and preventing the spread of invasive species would avoid and minimize impacts to sensitive natural communities.

Significance After Mitigation

As described above, implementation of Mitigation Measure BIO-1 and the General Order requirements would further reduce impacts to sensitive biological resources. Therefore, impacts to sensitive natural communities would be avoided, minimized and mitigated, to the extent feasible. As a result, Project Activity impacts would be **less-than-significant with mitigation**.

Impact BIO-3: Would projects permitted under the General Order have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (Less-Than-Significant with Mitigation)

Project Activities could impact a wetland's vegetation, soils, or hydrology, compromising its function, or remove the feature all together.

However, operation and maintenance activities have been conducted for the life of the infrastructure and the continuation of these activities does not represent a drastic change to the baseline conditions of the natural communities within and neighboring the utilities; nonetheless, much of the existing infrastructure would benefit from upgrades that may expand past the current footprints or disturb the present ROW. Wildfire mitigation would be conducted under the postfire environmental baseline. Both operation and maintenance, and wildfire mitigation would result in potentially significant impacts to aquatic resources.

Specifically, these Project Activities could compromise aquatic resource function or permanently remove the habitat. Hydrophytic vegetation could be crushed by heavy equipment, trimmed for vegetation management, or sprayed with herbicide. Wetland soils could be compromised through heavy equipment puncturing impermeable layers, eroding sediment, and excavating and altering the soil strata; these impacts could then compromise the feature's resulting hydrology and rending it no longer suitable for the resident hydrophytes. Project Activities like road development and facility upgrades could impact wetland hydrology through altering a feature's microtopography conducive of inundation or modifying the water table. In addition, access route construction and reconstruction could contribute significant erosion and sedimentation into waters of the state, which could choke out native species and compromise the feature's function. Herbicides could unintentionally be applied to non-target wetland plants or runoff into waters of the state. In addition, heavy equipment could disperse invasive plant seeds into disturbed soils and facilitate an infestation that could out compete the native flora. Vehicles and other equipment could discharge hazardous materials into the wetlands, including but not limited to fuels and lubricants. Therefore, Project Activities impacts to aquatic resources could be potentially significant.

Mitigation

Implementation of Mitigation Measure Bio-1 would require that Utility Services avoid and minimize impacts to aquatic resources. The mitigation measure requires agency consultation for potential impacts to aquatic resources, which would entail quantifying impacts, permit enrollment, permit condition implementation, and mitigating the potential impacts. Additionally, the General Order requirements for environmental training, vegetation management, herbicide application, and preventing the spread of invasive species would avoid and minimize impacts to federally protected wetlands as defined by Section 404 of the Clean Water Act.

Significance After Mitigation

As described above, implementation of Mitigation Measure BIO-1 and the General Order requirements would further reduce impacts to sensitive biological resources. Therefore, impacts to wetlands would be avoided, minimized and mitigated, to the extent feasible. As a result, Project Activity impacts to aquatic resources would be **less-than-significant with mitigation**.

Impact BIO-4: Would projects permitted under the General Order interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? (Less-Than-Significant with Mitigation)

Managed utility corridors, including overhead electric facilities located in waters of the state have accommodated fish and wildlife movement since their completed construction, and have not been barriers. However, impacts on native fish or wildlife movement may result during Project Activities including facility replacement, access route construction and reconstruction, dewatering, vegetation management, and

operation of construction equipment. Project Activities could prevent wildlife and migratory fish species from using their optimal movement corridors. Therefore, Project Activities could have a potentially significant impact to wildlife passage.

Mitigation
Implementation of Mitigation Measure Bio-1 would require that Utility Services avoid and minimize impacts to wildlife movement and migration. The mitigation measure requires agency consultation for potential impacts to sensitive biological resources, which would entail quantifying impacts, permit enrollment and condition implementation, and mitigating the impacts. Additionally, the General Order requirements for environmental training, construction BMPs, access route standards, vegetation management, herbicide application, preventing the spread of invasive species, and dewatering and restoration plans would avoid and minimize impacts to native resident or migratory fish or wildlife species, or their corridors or nursery sites.

Significance After Mitigation
As described above, implementation of Mitigation Measure BIO-1 and the General Order requirements would further reduce impacts to sensitive biological resources. Therefore, impacts to wildlife corridors would be avoided, minimized, or mitigated to the extent feasible. As a result, Project Activity impacts to wildlife corridors would be **less-than-significant with mitigation**.

Impact BIO-5: Would projects permitted under the General Order conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Less-Than-Significant with Mitigation)
Project Activities may increase the pace and scale of prior vegetation management activities represented in the environmental baseline for the locations containing utility infrastructure. The permitted discharge of fill to waters of the state from Project Activities generally would not conflict with any local policies or ordinances protecting biological resources. Utility Services strive to be consistent with local requirements, where feasible, while remaining consistent with safety obligations. Therefore, Project Activities could have a significant impact on biological resources protected by local policies and ordinances.

Mitigation
Implementation of Mitigation Measure Bio-1 would require that Utility Services consult with all applicable agencies and conduct Project Activities in compliance with the applicable ordinances and conditions. Additionally, the General Order requirements for environmental training and vegetation management would further minimize impacts to biological resources.

Significance After Mitigation
As described above, implementation of Mitigation Measure BIO-1 and the General Order requirements would further reduce impacts to sensitive biological resources. Therefore, with mitigation incorporated Project Activities would have a **less-than-significant impact with mitigation** on biological resources protected by local policies and ordinances.

Impact BIO-6: Would projects permitted under the General Order conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? (Less-Than-Significant with Mitigation)
Habitat conservation plans, Natural Community Conservation Plans and similar plans for conservation of biological resources have been adopted or are being prepared in the Project Area. These conservation plans generally permit incidental take of federally listed or state listed species. Authorized incidental take is mitigated by measures specified in each plan, which generally include habitat conservation and management to offset permitted take. Conservation plan conditions are applicable to plan participants (which generally include land use agencies or private entities).

For Project Activities that would occur in a plan area of an adopted Habitat Conservation Plan or Natural Community Conservation Plan, an eligible applicant could acquire an Incidental Take Permit through voluntary participation if plan coverage and permit issuance is available; for proposed Project Activities that are not covered by the plan, the Utility Service would need to pursue individual project permitting. Therefore, without proper consultation Project Activities could have a significant impact on biological resources protected by approved Habitat Conservation Plans, Natural Community Conservation Plans, and similar plans for conservation of biological resources.

Mitigation
Implementation of Mitigation Measure Bio-1 would require Utility Services to consult and coordinate with the applicable agencies in the Project Area. Through Utility Service coordination and compliance with current approved plans, Project Activities would not conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Significance After Mitigation
As described above, implementation of Mitigation Measure BIO-1 and the General Order requirements would further reduce impacts to sensitive biological resources. Therefore, Project Activities would have a **less-than-significant impact with mitigation.**

3.5 CULTURAL RESOURCES

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?			X	
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	X			
3) Disturb any human remains, including those interred outside of dedicated cemeteries?			X	

3.5.1 Introduction

This section describes cultural resources in the Project Area and the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, potential impacts include directly or indirectly impacting archeological resources, the potential to disturb or damage human remains, and construction of new infrastructure or modifications to existing infrastructure that could result in significant impacts.

3.5.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to cultural resources in the Project Area.

Federal

American Indian Religious Freedom Act

The American Indian Religious Freedom Act of 1978 (42 US Code 1996) protects and preserves the right of Native Americans to believe, express, and exercise traditional religious rights and cultural practices, including access to sites of religious importance to Native Americans.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (16 US Code Chapter 1B) requires individuals who wish to excavate or remove any archaeological resource located on public lands or Native American lands to apply for a permit from the appropriate Federal land manager. If a permit issued under Archaeological Resources Protection Act may result in harm to, or destruction of, any religious or cultural site, as determined by the Federal land manager, before issuing such permit, the Federal land manager shall notify any Native American tribe which may consider the site as having religious or cultural importance.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (25 US Code Sections 3001 to 3013) requires federal agencies to consult with the appropriate Native American tribes prior to any activity that could result in the intentional or inadvertent excavation of human remains and funerary objects on federal and tribal lands. The act requires the development of a Plan of Action.

National Historic Preservation Act

Historic properties are considered through compliance with the National Historic Preservation Act, as amended (US Code Title 54, Section 307103) and its implementing regulations (54 US Code 307103, Code of Federal Regulations Title 36, Parts 60, 63, and 800). The National Historic Preservation Act establishes the federal government's policy on historic preservation and the programs, including the National Register of Historic Places, through which that policy is implemented. Under the National Historic Preservation Act, historic properties include "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the [National Register of Historic Places]" (54 US Code 300308).

When a project implemented under the General Order requires a federal permit, compliance with Section 106 of the National Historic Preservation Act (Section 106) is also required. Under Section 106, generally, it is the responsibility of the lead federal agency—in most cases for projects enrolled under the General Order, the US Army Corps of Engineers—to consider the effects of a proposed undertaking on historic properties. The federal agency must consult with the State Historic Preservation Officer, federally recognized Indian tribes, and other interested parties before granting a permit, funding, or other authorization. The agency must also afford the Advisory Council on Historic Preservation and the State Historic Preservation Officer a reasonable opportunity to comment on any undertaking that would adversely affect a property eligible for listing in the National Register of Historic Places. Section 101(d)(6)(A) of the National Historic Preservation Act allows properties of traditional religious and cultural importance to an Indian tribe or a Native Hawaiian organization to be determined eligible for inclusion in the National Register of Historic Places.

Under the National Historic Preservation Act, a find is significant if it meets the National Register of Historic Places listing criteria (36 Code of Federal Regulations 60.4), as stated below:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

a) That are associated with events that have made a significant contribution to the broad patterns of our history, or
b) That are associated with the lives of persons significant in our past, or
c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
d) That have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one of the above criteria, a resource must retain integrity to be considered a historic property. Integrity is measured by the degree to which the resource retains its historical attributes and conveys its historical character, the degree to which the original fabric has been retained, and the reversibility of changes to the resources.

Certain types of resources are usually excluded from consideration for listing in the National Register of Historic Places but can be considered if they meet special requirements in addition to meeting one or more of the National Register of Historic Places listing criteria. The following seven criteria considerations deal with resources usually excluded from listing in the National Register of Historic Places:

1. Religious resources
2. Moved resources
3. Birthplaces and graves
4. Cemeteries
5. Reconstructed resources
6. Commemorative resources
7. Resources that have achieved significance within the past 50 years

State

California Environmental Quality Act

CEQA (California PRC Section 21000 et seq.) is the principal statute governing environmental review of projects occurring in California. CEQA requires lead agencies to determine whether a project would have a significant effect on cultural resources and tribal cultural resources, among the other resource types.

Typically, a resource must be more than 50 years old to be considered a potential historical resource. The California Office of Historic Preservation advises recording any resource 45 years or older, because there is commonly a 5-year lag between resource

identification and the date that planning decisions are made. Impacts on tribal cultural resources also are considered under CEQA (California PRC Section 21084.2).

California Health and Safety Code Section 7050.5

Section 7050.5 of the California Health and Safety Code protects human remains by prohibiting the disinterment, disturbance, or removal of human remains from any location other than a dedicated cemetery.

California Public Resources Code Section 5097

California PRC Section 5097.99, as amended, prohibits obtaining or possessing Native American artifacts or human remains that are taken from a Native American grave or cairn. Knowingly or willfully obtaining or possessing Native American artifacts or human remains is a felony punishable by imprisonment. Similarly, unlawful removal of any such items with an intent to sell or dissect or with malice or wantonness is a felony punishable by imprisonment.

California Public Resources Code Section 5097.98

California PRC Section 5097.98 (reiterated in State CEQA Guidelines Section 15064.59[e]) also identifies steps to follow if human remains are accidentally discovered or recognized in any location other than a dedicated cemetery.

California Register of Historical Resources

The California Register of Historical Resources is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (California PRC Section 5024.1[a]). The criteria for eligibility for the California Register of Historical Resources are based on the criteria for listing on the National Register of Historic Places (California PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register of Historical Resources, including California properties formally determined eligible for, or listed in, the National Register of Historic Places.

To be eligible for the California Register of Historical Resources, a cultural resource must be significant at the federal, state, and/or local level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage
2. Is associated with the lives of persons important in our past
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4. Has yielded, or may be likely to yield, information important in prehistory or history

A resource eligible for the California Register of Historical Resources must be of sufficient age, and retain enough of its historic character or appearance (integrity), to convey the reason for its significance. The California Register of Historical Resources consists of resources that are listed automatically and those that must be nominated through an application and public hearing. The California Register of Historical Resources automatically includes the following resources:

a) California properties listed in the National Register of Historic Places and those formally determined eligible for the National Register of Historic Places
b) California Register of Historical Resources Historical Landmarks from No. 770 onward
c) California Points of Historical Interest that have been evaluated by the California Office of Historic Preservation and have been recommended to the State Historical Commission for inclusion in the California Register of Historical Resources

The following other resources may be nominated to the California Register of Historical Resources:

a) Historical resources with a significance rating of Category 3, 4, or 5 (properties identified as eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, and/or a local jurisdiction register)
b) Individual historic resources
c) Historic resources contributing to historic districts
d) Historic resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone

Individual properties and districts identified as historical resources under CEQA include those that are significant because of their association with important events, people, or architectural styles or master architects, or for their informational value (California Register of Historical Resources Criteria 1, 2, 3, and 4) and that retain sufficient historic integrity to convey their significance. Criterion 4 is typically applied to the evaluation of archaeological resources, and not to architectural resources. Historical resources may include architectural resources and archaeological resources.

The significance of most pre-contact and historic-era archaeological sites is typically assessed relative to California Register of Historical Resources Criterion 4. This criterion stresses the importance of the information potentially contained within an archaeological site, rather than the significance of the site as a surviving example of a type or its association with an important person or event. Archaeological resources may qualify as historical resources under the definition provided in State CEQA Guidelines Section 15064.5(a). Alternatively, they may be assessed under CEQA as unique archaeological resources. “Unique archaeological resources” are defined as archaeological artifacts, objects, or sites that contain information needed to answer important scientific research questions (California PRC Section 21083.2).

Executive Order B-10-11

In 2011, Governor Edmund G. Brown Jr. issued Executive Order B-10-11 (California State Transportation Agency 2024) requiring all state agencies and departments to encourage early communication and consultation with California Tribes in developing legislation, regulations, rules, and policies on matters that may affect Tribes and their communities. Executive Order B-10-11 recognizes and reaffirms the inherent right of Native American Tribes to exercise sovereign authority over their members and territories, establishes the Governor's Tribal Advisor position within the Governor's Office, reaffirms the state's commitment to working with Tribes, and encourages communication and consultation with Tribes.

Native American Historic Resource Protection Act

The California Native American Historic Resources Protection Act of 2002 imposes civil penalties, including imprisonment and fines up to $50,000 per violation, on persons who unlawfully and maliciously excavate upon, remove, destroy, injure, or deface a Native American historic, cultural, or sacred site that is listed or may be listed in the California Register of Historical Resources.

Unique Archaeological Resources

As defined in California PRC Section 21083.2, a "unique archaeological resource" is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

a) Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information
b) Has a special and particular quality such as being the oldest of its type or the best available example of its type
c) Is directly associated with a scientifically recognized important prehistoric or historic event or person

The State CEQA Guidelines note that if an archaeological resource is not a unique archaeological, historical, or tribal cultural resource, the effects of the project on those cultural resources shall not be considered a significant effect on the environment (California PRC Section 15064.5[c][4]).

Regional and Local

The Project Area encompasses all counties and cities throughout California. Each county and city have local regulations and a general plan with cultural resources goals and policies that guide development and encourage providing and maintaining open space resources and preserving areas of outstanding cultural value in their communities. Many cities and counties in the study area have goals and policies that promote the preservation of the area's cultural resources—archaeological, architectural, and tribal cultural resources.

3.5.3 Environmental Setting

This section describes the cultural resources that could be affected by Project Activities that would be permitted under the General Order. The area of analysis covers the entire geographic extent of California and includes many types of cultural resources.

The ethnographic setting, indigenous resources, and historic-era resources are described here to allow analysis at a program level of detail. This description does not preclude the need for or replace any project-level environmental review.

Ethnographic Setting

Beginning in the early 16th century, but primarily during the late 19th and early 20th centuries, Native American lifeways and languages (i.e., ethnographic data) were documented throughout California. Whether provided by professional ethnographers or archaeologists, field personnel from government agencies such as the Bureau of Indian Affairs, soldiers, merchants, settlers, or travelers, ethnographic accounts partly illuminate the traditions, beliefs, and cultures of Native American groups during specific points in time. Synthesized narratives such as the Handbook of North American Indians, Volume 8: California (Heizer 1978) categorize native traditions and practices documented at the time in California; however, the complexity of regional diversity should not be overlooked.

At least six primary language families exist in California, and there may be more than 300 different dialects of approximately 100 languages. The “geolinguistic mosaic of the ethnographic period, with a startling diversity of languages and language families” indicates numerous major population shifts and migrations (Golla 2007:71). Ethnographers have also quantified at least 60 greater Indian cultures and as many as 250 specific tribes throughout the state.

Similarities between California’s native populations crossed geographic, climatic, and cultural boundaries. Acorns, where available, were a staple throughout California. Native populations relied on deer, elk, small mammals, birds, and fish, and they used resources to their fullest extent, with little to no waste product. Ethnographically documented communities were generally focused on a central tribe with smaller satellite tribelets, although this characteristic varied by region. Shamanism and ceremonialism played important roles in the lives of most California Native Americans; the specific religious traditions themselves differed between groups. Basketry was widespread, and some southern tribes also manufactured pottery. Hunting, trapping, and fishing technologies were shared across tribal and cultural boundaries but varied depending on environmental conditions.

Native American fishing techniques along inland waterways included constructing fish weirs or dams across rivers to trap anadromous fish during upstream migration. Weirs were constructed of wood poles, logs, and small stakes to obstruct fish passage up a waterway. Some fish weirs were built and used by small groups, mainly individual families, but communal constructions were also common (Gould 1975). Organized labor teams from many surrounding villages worked cooperatively to collect logs for the construction of a communal fish weir, catch fish, gather firewood, and process the

catch. The dam would be in place for approximately 10 days before the group would tear it down. Other methods of fishing included net traps, harpoons, spears, platforms, and clubs (Kroeber and Barrett 1960). Tule balsa canoes and dugout canoes were also used for fishing (Wilson and Towne 1978). Among the other important riverine subsistence species were steelhead, candlefish, lamprey, eel, and trout.

Trade was well developed in California. The use of shell beads as currency was an important economic and cultural practice for many tribes. Food, ornaments, household items, clothing, industrial materials such as obsidian, finished items including canoes, pottery, basketry, and tobacco were used for trade items. Trade networks were well established, and although it appears that there were not professional traders, central villages served as focal points for trading (Heizer 1978).

Regional differences in Native American beliefs are significant, yet there is a common identity and relationship with the environment. California Native peoples believe that nature is interrelated and immersed with sacred power. Most California tribes tell creation myths that often explain the origins of the earth, human existence, and individual cultural attributes. Stories have often taught morality or defined the establishment of elements. Modern Native American beliefs vary but are rooted in their ancestral land and traditions.

Indigenous Water Resources

Water (whether present in springs, creeks, rivers, lakes, bays, or the ocean) is one of the most important resources necessary for human use and settlement. Water, and access to water, provides sustenance, travel and trade corridors, and traditional boundaries. Indigenous cultural resources are present along waterways throughout California.

Indigenous archaeological resources generally found along California's waterways include permanent or semi-permanent habitation sites, temporary camps or food processing localities, and isolated artifacts. Archaeological materials that can be found at sites along waterways include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (midden) containing heat-affected rocks, artifacts, or shellfish remains; stone milling equipment (e.g., mortars, pestles, handstones, milling slabs); and battered stone tools, such as hammerstones and pitted stones. Native American human remains can also be found at indigenous archaeological sites. These types of resources are generally not within stream channels; rather, they are located on riverbanks and in surrounding areas.

Other indigenous archaeological site types that could be in or adjacent to waterways are fish weirs and platforms. Flooding and sediment deposition episodes over millennia have buried many of these archaeological sites, resulting in complex archaeological sites with components both at and below the surface.

Historic Setting

The earliest European presence in California came with the Spanish discovery and exploration of the California coast in the mid-16th century. Alta California was claimed for Spain in 1542 by the Portuguese explorer Juan Cabrilho, who sailed up the Pacific coast as far as Fort Ross. Because of the prosperity of its more southern colonies and the great distances required to travel so far north, Spain largely ceased overland and maritime exploration of Alta California until the 18th century. Spain had originally focused its energy and attention on its southern colonies in New Spain; however, in the 18th century, the increased presence of Russian settlements in the Aleutian Islands and the British acquisition of Canada encouraged Spain to explore and occupy Alta California to prevent Russian and British encroachment from the north.

European expansion into Alta California began when Spanish Mexico instigated the establishment of a string of Franciscan missions throughout the region. The California mission system had two goals: to Christianize and enculturate the native population of California, and to gain political and social control of the area for the Spanish government in Mexico. Mission San Diego de Alcalá, the first of 21 California missions, was founded in July 1769. Over the next 50 years the mission system was extended farther north. Alongside the missions came a network of military establishments or presidios and civilian settlements or pueblos. Exploration of California's hinterland focused predominantly on identifying rancho sites to support the mission network and on recapturing runaway Native peoples.

Although the original Spanish plan for the mission system included secularization, the process did not begin until Mexico gained independence from Spain. Fueled by reports of Franciscan padres degrading the Native peoples and failing to provide food and services to the military, the Mexican government began secularization in mid-1834. The mission lands were to be divided among the Native American neophytes, but only rarely did this actually happen. More often the mission lands were granted to high-ranking Mexican Californian soldiers, politicians, and socialites.

Mexican Californians, or Californios, were well known for their hospitality and easygoing lifeways. Early accounts describe ranchos with large households, operated by a sizeable Native American labor force. Most ranchos were intensively involved in the hide-and-tallow trade, supporting huge herds of cattle on their vast landholdings. The cattle were driven to matanzas, or slaughter sites, that were usually as close to water transportation as possible for easy transport onto foreign trade vessels. The relationship between the Californios and the foreign ships had been active since the early 1820s. The ships imported all manner of trade goods, because little manufacturing of refined goods occurred in Mexican California.

Beginning in the 1830s, Americans began to migrate to California, and many became Mexican citizens. Some married into prominent Californio families, and some of these families were eventually granted lands by the governor. Many of these first immigrants became acculturated into Mexican society and politics, including some who went on to become prominent businessmen and landowners.

The discovery of gold in California in 1848 instigated one of the largest migrations in history. Thousands came by land and sea in search of fortune. Most came to dig for gold, but many came with the foresight that miners needed supplies. Earlier residents of California, including many Californios and previous Euroamerican immigrants, capitalized on the new immigrant population.

After the acquisition of California by the US that same year, many Californios also struggled to hold on to their vast landholdings. The Treaty of Guadalupe Hidalgo promised that property belonging to the Mexicans would be “inviolably respected,” but the new Americans generally believed that California’s lands should be public property as a privilege gained with the military victory. The newly arrived immigrants ignored the vague land-grant maps, or diseños, that marked the boundaries of each rancho territory. Squatters settled on land officially owned by Mexicans and violence often erupted. Many Californios lost substantial amounts of land, despite legal efforts to hold on to it. Although many claims were confirmed, the Mexican landowners were often bankrupt by the end of the long and costly proceedings.

Mining camps and towns were established almost immediately throughout California’s gold-bearing regions, which are generally located along the western foothills of the Sierra Nevada and along the Klamath and Trinity River basins. At the outset, the mining population was made up almost exclusively of single men; but miners needed food and supplies, and people who could provide those goods followed. Ultimately, women and children also relocated to mining communities.

The influx also brought a wide-ranging diversity of cultures and nationalities. California gold mining was very successful; in 1852, California produced more than $81 million worth of gold, 60 percent of the world’s production for that year (Clark 1957:223).

Almost immediately after the discovery of gold, investors began talking about the construction of a transcontinental railroad that would connect Eastern goods, money, and services to the new Western enterprises. Before construction of the railroad, however, California’s extensive network of inland waterways was crucial for travel to the interior.

Historic-Era Resources and Waterways

Potential historic-era resources within California’s river system include submerged vessels. The California State Lands Commission maintains a shipwreck database that identifies approximately 1,550 recorded shipwrecks in the state, about 70 of which are in the river system (California State Lands Commission 2022). The vast majority of these resources are wood-hulled, Gold Rush–era vessels submerged in the Sacramento, American, Feather, Yuba, and San Joaquin Rivers in central California. The title to all abandoned shipwrecks is under the jurisdiction of the California State Lands Commission. Any submerged vessel remaining in state waters for more than 50 years is considered a potential historical resource.

Other historic-era resources often present in California’s waterways are mining sites and features that are submerged in or adjacent to the state’s streams. Resource types include mining remains, such as tailings piles and river diversions; water conveyance

features, such as ditches, flumes, and dams; and community remains, including foundations, dugouts, and refuse deposits located along riverbanks and in the vicinity (California Department of Transportation 2008). Like submerged vessels, many of these other Gold Rush–era resources are concentrated within California's Sierra Nevada foothills, but may be present anywhere in the state's waterways.

California's waterways are a patchwork of both highly altered riverine systems and wild and scenic drainages that are undisturbed by modern development. The construction of dams, levees, canals, and reservoirs during modern times (whether for power generation, irrigation, flood control, or transportation) has greatly altered the state's waterways, and with it, much of the surface evidence of the types of pre-contact and historic-era sites described above. Natural processes such as flooding, erosion, and deposition have also altered or destroyed many of the cultural resources found along California waterways. Regardless of these natural and human-made disturbances, the state's waterways remain abundant with both recorded and unrecorded cultural resources, all of which provide a detailed record of California's rich cultural heritage.

3.5.4 Impacts Analysis

Methods for Analysis

Project Activity impacts to cultural resources are evaluated based on how typical Utility Service methods could impact historical and archeological resources. Additional consideration was given to the mechanisms of direct impacts from Project Activities to cultural resources, including disturbing, materially altering, or demolishing cultural resources. However, the precise locations and detailed characteristics of Project Activities enrolled under the General Order are yet to be determined. Therefore, Project Activity impacts to cultural resources were qualitatively and conservatively analyzed. While most Project Activities would be contained to areas with existing infrastructure, the construction of access routes and minor expansion of facilities would potentially expand the ground disturbance footprint to locations that were not previously evaluated.

Human Remains

Human remains, including those buried outside of formal cemeteries, are protected under several state laws, including California PRC Section 5097.98 and Health and Safety Code Section 7050.5. For the purposes of this analysis, intentional disturbance, mutilation, or removal of interred human remains would be a significant impact.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to cultural resources would be considered significant if projects permitted under the General Order would:

1. Cause a substantial change in the significance of a historical resource pursuant to Section 15064.5;
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or
3. Disturb any human remains, including those interred outside of dedicated cemeteries.

Impacts and Mitigation Measures

Impact CUL-1: Would projects permitted under the General Order cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? (Less-Than-Significant Impact)

Project Activities could be in proximity to architectural resources that qualify as historical resources as defined in State CEQA Guidelines Section 15064.5, but it is expected that Project Activities would not have a significant effect on such historical resources. Utility infrastructure will not typically meet any of the criteria for designation for listing on the California Register of Historical Resources. None of the Project Activities authorize alterations to existing buildings that are not related to utility infrastructure. Project Activities would be similar to ongoing existing operation and maintenance activities and are not known to increase the risk to historical resources. If an individual project subject to the General Order had the potential to affect a historical resource because of its proximity to that resource, the Project Activities could generally be planned around avoiding impacts to the historical resource or, if not, such impacts could not be analyzed at this time, without knowing individual project details, without speculation. The General Order does not authorize any activity adversely impacting an important historical or archeological resource; disturbing any human remains; or eliminating important examples of the major periods of California history or prehistory, unless the activity is authorized by the appropriate historical resource agencies. Therefore, there would be a **less-than-significant impact**.

Impact CUL-2: Would projects permitted under the General Order cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? (Potentially Significant Impact)

Project Activities could be in proximity of archaeological resources that qualify as archaeological resources as defined in State CEQA Guidelines Section 15064.5 or unique archaeological resources per California PRC Section 21083.2. Project Activities could involve ground disturbance (e.g., excavation, grading, drilling). General Order requirements may avoid or minimize the impact to cultural resources. Individual projects

subject to the tribal cultural resources requirements in the General Order would be required to conduct a records search to identify any potentially affected *historical, archeological, and* tribal cultural resources. Where that search yielded a positive result for a tribal cultural resource, as described in section 3.18, the General Order requires the Discharger to offer consultation with any of the affected tribes. During consultation, tribes could identify potential protective measures that could avoid or minimize the impact to the tribal cultural resource. For archeological resources that are not tribal cultural resources, if there was a positive result, reasonable efforts must be made to avoid causing damages to a unique archaeological resource, including planning construction to avoid archaeological sites, creating conservation easements, or capping or covering archaeological sites with a layer of soil before building. It is expected that existing infrastructure conducted a search for cultural resources prior to construction and avoid archaeological sites whenever possible. Project Activities that authorize new construction should plan construction to avoid archaeological sites whenever feasible. If any archaeological resources, as defined in State CEQA Guidelines Section 15064.5 were affected by the General Order, the impact would be potentially significant.

Project Activities that are necessary to restore essential public services or facilities in response to ongoing or recent wildfire activity are subject to streamlined requirements where power needs to be restored such that impacts are possible for such projects. These impacts would not include the impacts caused by the wildfire itself, but rather the Project Activities necessary to restore utility services. For projects that are necessary to restore essential public services or facilities in response to ongoing or recent wildfire activity, potential minimization measures would include a records search for archaeological resources, but such a search may not be possible to complete prior to beginning such projects, given the public safety urgency associated with those projects and the amount of time it typically takes to identify potential archaeological resources. Because the extent and location of Project Activities are not known at this time, it is not possible to conclude that the General Order requirements or equally effective mitigation measures would reduce significant impacts to a less-than-significant level in all cases. Therefore, this impact would be **significant and unavoidable**.

Impact CUL-3: Would projects permitted under the General Order disturb any human remains, including those interred outside of dedicated cemeteries? (Less-Than-Significant Impact)

Project Activities could involve ground disturbance, vibration, and removal of infrastructure, which could result in impacts on human remains through physical damage or destruction. Conditions in the General Order requires Utility Servies to comply with Health and Safety Code section 7050.5 and if applicable PRC Section 5097.98. The General Order does not authorize any activity adversely impacting an important historical or archeological resource; disturbing any human remains; or eliminating important examples of the major periods of California history or prehistory, unless the activity is authorized by the appropriate historical resource agencies. Therefore, there would be a **less-than-significant impact**.

3.6 ENERGY

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?			X	
2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

3.6.1 Introduction

This section discusses energy resources in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, Project Activities will result in temporary impacts to energy resources during project construction.

3.6.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to energy in the Project Area.

Federal

American Recovery and Reinvestment Act of 2009

As part of a larger stimulus package, the American Recovery and Reinvestment Act authorized federal funding to the US Department of Energy to forward specific energy priorities, including modernizing the nation's electric transmission grid.

Energy Policy Act of 2005

The Energy Policy Act (42 USC 13201 et seq.) addresses topics related to US energy production: energy efficiency; renewable energy; oil and gas; coal; vehicles and motor fuels, including ethanol, electricity, hydropower, and geothermal energy; and climate change technology. For example, the law increases the amount of biofuel that must be mixed with gasoline sold in the US (US Environmental Protection Agency 2017).

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission is an independent agency that regulates the interstate transmission of energy (electricity, natural gas, and oil). The Federal Energy Regulatory Commission also reviews proposals to build liquefied natural gas terminals and interstate natural gas pipelines, and licensing hydropower projects (Federal Energy Regulatory Commission 2020a).

Federal Energy Regulatory Commission Order Numbers 888 and 889

California's energy market is regulated by Federal Energy Regulatory Commission Order Nos. 888 and 889. These orders, issued in 1996 and 1997, respectively, apply to public utilities that own, control, or operate facilities for transmitting electricity in interstate commerce.

Under Order No. 888, the affected public utilities must offer open-access, nondiscriminatory transmission tariffs with minimum terms and conditions of service. The utilities may seek to recover the justifiable stranded costs (the potential losses to electric power utilities as their industry is deregulated [Congressional Budget Office 1998]) of providing open-access transmission services (Federal Energy Regulatory Commission 2020b). Federal Energy Regulatory Commission Order No. 889 requires public utilities to participate in the Open Access Same-Time Information System. This participation is intended to inform current and potential open-access transmission customers regarding available transmission capacity, prices, and other relevant data (Federal Energy Regulatory Commission 2020b).

Federal Fuel Efficiency Standards

The Energy Independence and Security Act of 2007 (Public Law 110-140; 42 USC 7545[o][2]) increased the supply of alternative fuels by setting a Renewable Fuel Standard, which requires the blending of 36 billion gallons of renewable fuel in transportation fuels by 2022. The Energy Independence and Security Act also tightened the Corporate Average Fuel Economy standards that regulate average fuel economy in the vehicles produced by each major automaker. The law required that these standards be increased such that, by 2020, new cars and light trucks would deliver a combined fleet average of 35 miles per gallon (mpg) (US Environmental Protection Agency 2017).

Since then, several changes to the Corporate Average Fuel Economy standards have occurred:

- In 2009, the standard for passenger cars and light trucks increased to 35.5 mpg by model year 2016. Guidelines were made stricter, requiring that averages rise approximately 5 percent annually, roughly setting passenger cars at 39 mpg and light trucks at 30 mpg.
- In 2010, Corporate Average Fuel Economy standards were proposed for medium-duty and heavy-duty trucks. Fuel economy improvements were to be 20 percent for tractors and 10 percent for gasoline trucks and diesel trucks by model year 2018.

- In 2011, an agreement was announced with 13 large automakers to increase fuel economy for passenger cars and light trucks to 54.5 mpg.
- A 2016 mid-term review analyzed how the industry was progressing with the new standards in place. Although the industry was found to be making improvements, the mid-term review found the 54.5 mpg projection to be unrealistic. In part, the mix of vehicles on which the projections were based on used more passenger vehicles while the actual market was closer to 50 percent passenger cars and 50 percent trucks and sport utility vehicles.
- In August 2018, the US Environmental Protection Agency and US Department of Transportation proposed the Safer Affordable Fuel-Efficient Vehicle Rules. This proposal would roll back some of the goals from 2012 and freeze the fuel economy goals to the 2021 target of 37 mpg.

North American Electric Reliability Corporation Reliability Standards

The North American Electric Reliability Corporation is an international regulatory authority, and its mission is to ensure the effective and efficient reduction of risks to the reliability and security of the electric grid. While reactive power planning and operational needs vary significantly across North America based on local system characteristics and practices, North American Electric Reliability Corporation Reliability Standards define a minimum set of requirements for power generators to ensure reliable planning and operation of the electric grid. To ensure that voltage levels, reactive flows, and reactive resources are monitored, controlled, and maintained within limits in real time to protect equipment and the reliable operation of the grid, North American Electric Reliability Corporation established Reliability Standards VAR-001-4.1, VAR-002-4, and TPL-001-4 to codify reactive power requirements. The North American Electric Reliability Corporation is subject to Federal Energy Regulatory Commission oversight (North American Electric Reliability Corporation 2022).

Western Electricity Coordinating Council

With delegated authority from the North American Electric Reliability Corporation and Federal Energy Regulatory Commission, the Western Electricity Coordinating Council is a regional entity that promotes bulk power system reliability and security in the Western Interconnection, which extends across 14 Western US states; Alberta and British Columbia, Canada; northern Baja California, Mexico (Western Electricity Coordinating Council 2020). The Western Electricity Coordinating Council participates in the development of reliability standards, then enforces the standards.

State

California Energy Action Plan

Originally developed in 2003 and updated in 2005 and 2008, the California Energy Action Plan identifies specific action areas to ensure that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. The plan's first-priority actions to address California's increasing energy demands are ensuring energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods to address system reliability and support the best use of energy infrastructure). Additional priorities include the use of renewable sources of power and distributed generation. The plan also notes that investment in conventional transmission infrastructure is crucial to helping the state meet its renewable energy goals.

California Energy Commission

The California Energy Commission is the state's primary energy policy and planning agency. The California Energy Commission is committed to reducing the cost of energy and environmental impacts of energy use while ensuring a safe, resilient, and reliable energy supply. The commission's core responsibilities include advancing state energy policy, achieving energy efficiency, certifying thermal power plants, investing in energy innovation, transforming transportation, developing renewable energy, and preparing for energy emergencies (California Energy Commission 2022a).

California Independent System Operator Corporation

The California Independent System Operator is an independent operator of approximately 80 percent of the statewide wholesale power grid and is responsible for system reliability and scheduling of available transmission capacity (California Independent System Operator 2017).

California Integrated Energy Policy

In 2002, the California Renewable Energy Resources Act added and amended various sections of the Fish and Game Code, Public Resources Code, and Public Utilities Code. This law codified California's commitment to expanding the Renewables Portfolio Standard to include 33 percent renewable power by 2020. Updates to the California Renewables Portfolio Standard were subsequently codified in 2011 (33 percent renewable power by 2020), 2015 (50 percent renewable power by 2030), and 2018 (60 percent renewable power by 2030 and 100 renewable power percent by 2045). Most recently, California Energy Commission published a 2022 Integrated Energy Policy Report Update (California Energy Commission 2022c). The report assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors; provides policy recommendations to conserve resources, protect the environment, ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (California Energy Commission 2022b). The report covers such topics as decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy,

updates on Southern California electricity reliability, climate adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast.

California Public Utilities Commission

The CPUC regulates privately owned electricity and natural gas companies. Regulated utilities must obtain a CPUC certificate of Public Convenience and Necessity to construct transmission lines 200 kilovolts and greater, or a Permit to Construct for facilities between 50 and 200 kilovolts. Facilities operated by the California Department of Water Resources are not subject to CPUC oversight.

Renewables Portfolio Standard Program

Established in 2002, California's Renewables Portfolio Standard Program aims to ensure that a minimum amount of renewable energy is included in the state's portfolio of electric generation resources. In 2015, Senate Bill (SB) 350 increased California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030 to enhance the state's ability to meet its long-term climate goal of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. The CPUC is working with the California Energy Commission to help implement SB 350 by setting guidelines for large publicly owned utilities to ensure that the goals of SB 350 are met. In September 2018, SB 100 was signed into law, accelerating California's renewable electricity procurement goals to 50 percent by 2026 and 60 percent by 2030. The law further directed the CPUC, California Energy Commission, and California Air Resources Board to plan for 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by 2045. The law notes that new and modified electric transmission facilities may be necessary to facilitate the state achieving its Renewables Portfolio Standard targets.

Renewable Energy Transmission Initiative

The Renewable Energy Transmission Initiative 2.0 is a statewide, non-regulatory planning effort convened by the California Natural Resources Agency, with participation from the California Energy Commission, CPUC, California Independent System Operator, and the US Bureau of Land Management California Office. Renewable Energy Transmission Initiative 2.0 was created to explore the renewable generation potential available to California utilities to help meet statewide greenhouse gas reduction and renewable energy goals, and to identify the potential transmission implications of accessing and integrating these resources.

Title 24 Building Energy Efficiency Standards

Title 24 of the California Code of Regulations is the California Building Code, which governs all aspects of building construction. The code includes standards mandating the use of energy efficiency measures in new construction. Since they were established in 1977, the building efficiency standards (along with energy efficiency standards for appliances) have helped to reduce the costs of electricity and natural gas for consumers

in California. The standards are updated every three years to allow consideration of new energy efficiency technologies. The latest update to Title 24 standards became effective on August 11, 2021. The standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings (California Energy Commission 2022b).

Local

California law requires counties and cities to develop comprehensive, long-term general plans to guide their land use decision making and physical development. Of the seven required “elements,” or chapters, in a general plan, several relate directly or indirectly to energy. For instance, the land use element is required to contain an analysis of energy conservation opportunities in development. The conservation element of a general plan is also required to include an inventory of energy resources from renewable sources to be consistent with air quality policies. Neither of these elements are likely to be relevant to Utility Service wildfire mitigation activities.

3.6.3 Environmental Setting

Project Activities consume energy both directly and indirectly. This section describes energy consumption for California generally because the Project Area covers the geographic extent of the state.

In California, energy consumption is divided into four primary sectors: transportation, industrial, commercial, and residential. According to the US Energy Information Administration (US Energy Information Administration 2022), of the total energy consumption in California in 2020, transportation consumed 34.0 percent, industrial 24.6 percent, commercial 19.6 percent, and residential 21.8 percent. In 2020, natural gas was the largest single energy source consumed in California, at 30.82 percent.

Table 3.6-1, below, summarizes California’s energy consumption by energy source for 2020. Energy consumption in the Project varies by location but includes residential, agricultural, municipal, industrial, and transportation uses, and natural gas and crude oil energy sources.

Table 3.6-1 Energy Consumption in California, 2020

Category	Trillion BTU	Consumption Percentage
Coal	28	0.40
Natural Gas	2144	30.82
Motor Gasoline excluding Ethanol	1357.8	19.52
Distillate Fuel Oil	528	7.59
Jet Fuel	337	4.84
Hydrocarbon Gas Liquids	58.2	0.84
Residual Fuel	126.1	1.81
Other Petroleum	299.8	4.31
Nuclear Electric Power	169.8	2.44
Hydroelectric Power	187.5	2.70
Biomass	295.2	4.24
Other Renewables	657.7	9.45
Net Electricity Imports	11	0.16
Net Interstate Flow of Electricity	756.5	10.87
Total	**6956.6**	**100**

Source: US Energy Information Administration 2022
Abbreviation: BTU = British Thermal Unit

3.6.4 Impact Analysis

Methods for Analysis

Project Activity impacts to energy were analyzed qualitatively based on best professional judgment. The Project Area encompasses a legacy of disturbance from Utility Service operation and maintenance and wildfire mitigation activities. The analysis assumes that Utility Services will implement General Order requirements, mitigation measures (as applicable), and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA. Impacts to energy would be considered significant if projects permitted under this General Order would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation; or conflict with or obstructs a state or local plan for renewable energy or energy efficiency.

Impacts and Mitigation Measures

Impact ENG-1: Would projects permitted under the General Order result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? (Less-than-Significant Impact).

Project Activities would require energy consumption to power vehicles for transport, heavy equipment for construction and operation and maintenance, and equipment to conduct vegetation maintenance. Project Activity energy usage is necessary to provide efficient and reliable electricity to the public and therefore would not be considered wasteful or unnecessary. Project Activities would improve California's electrical distribution efficiency and resilience because the primary purpose of all electric utility work is to improve electric grid reliability. Furthermore, Project Activities consist of standard practices for Utility Services, and they are required to comply with regulations set forth by Federal Energy Regulatory Commission, California Energy Commission, and CPUC. Therefore, Project Activities permitted under this General Order would have a **less-than-significant impact** on energy usage.

Impact ENG-2: Would projects permitted under the General Order conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (No Impact)

The General Order does not affect the source of electricity. Project Activities include system hardening and may improve energy efficiency. Project Activities will result in **no impact** to state or local plans for renewable energy or energy efficiency.

3.7 GEOLOGY AND SOILS

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
1) Directly or indirectly cause potential, substantial and adverse effects, including the risk of loss, injury, or death involving:	-	-	-	-
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?		X		
2) Result in substantial soil erosion or the loss of topsoil?		X		
3) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?		X		

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
4) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?		X		
5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
6) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

3.7.1 Introduction

This section describes the geologic and seismologic conditions in the Project Area, as well as soil, and paleontological resources, along with associated potential geologic, seismic, and geotechnical hazards from the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, Project Activities could be subject to seismic-related ground failure, strong seismic ground shaking, surface fault rupture or an earthquake, landslides, erosion and loss of topsoil, and potential impacts to paleontological resources and unique geologic features.

3.7.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to soils and geology in the Project Area.

Federal

Earthquake Hazards Reduction Act

The US Congress enacted the Earthquake Hazards Reduction Act and National Earthquake Hazards Reduction Program in 1977. Congress' stated purpose for National Earthquake Hazards Reduction Program is "to reduce the risks of life and property from future earthquakes in the US through the establishment and maintenance of an effective earthquake hazards reduction program." Four Federal Agencies are responsible for managing and coordinating the National Earthquake Hazards Reduction Program: the Federal Emergency Management Agency's Earthquake Program, National Institute of Standards and Technology Earthquake Engineering Group, National Science Foundation, and the US Geologic Survey Earthquake Hazard Program. The objectives of the four agencies are to improve our understanding, characterization, and assessment of hazards and vulnerabilities; improve model building codes and land use practices; reduce risks through post-earthquake investigations and education; improve design and construction techniques; improve the capability of government and the private sector to reduce and manage earthquake risk; and accelerate the application of research results. The four general goals of the National Earthquake Hazards Reduction Program are:

1. Develop effective practices and policies to reduce losses of life and property from earthquakes and accelerate their implementation.
2. Improve techniques for reducing seismic vulnerabilities of facilities and systems.
3. Improve earthquake hazards identification and risk assessment methods.
4. Improve the understanding of earthquakes and their effects.

US Geological Survey Landslide Hazard Program

The US Geological Survey, Landslide Hazard Program provides information on the causes of ground failure and mitigation strategies to reduce long-term losses from landslide hazards (US Geological Survey 2022). The information this program provides supports better understanding of the nature and causes of ground failures and improving mitigation strategies.

State

***Alquist-Priolo* Earthquake Fault Zoning Act**

Alquist-Priolo Earthquake Fault Zoning Act was passed as SB 520 in 1972. The intent of the Alquist-Priolo Earthquake Fault Zoning Act is to ensure public health and safety by prohibiting the construction and placement of most structures for human occupancy across traces of active faults, and to mitigate the hazard of surface fault rupture by regulating development near active faults. California has delineated Earthquake Fault Zones along known active faults. The California Geological Survey is required to issue

appropriate maps to assist cities and counties in planning, zoning, and building regulation functions. Before a project within an Alquist-Priolo Earthquake Fault Zone can be permitted, a geologic investigation must be prepared by a licensed geologist to demonstrate that buildings will not be constructed across active faults. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back a distance to be established by a California Certified Engineering Geologist.

California Building Standards Code

The California Building Standards Code (California Code of Regulations, Title 24) details the state standards for construction and structural design. The California Building Code contains minimum standards for certain non-utility-specific construction including access roads, walls, and buildings. The state earthquake protection law (California Health and Safety Code Section 1900 et seq.), as described in Chapter 16 of the California Building Code, requires structures to be designed to resist stress from lateral forces caused by earthquakes and wind. Chapter 18 of the California Building Code regulates foundation and retaining wall excavation, and details required geological reports. Appendix J of the 2016 California Building Code regulates grading activities such as construction of unstable soils, including expansive soils and areas subject to liquefaction, and drainage and erosion control.

California Public Utilities Commission

According to the CPUC's General Order 95, the CPUC regulates all characteristics of design, construction, operation, and maintenance of electrical powerlines subject to their local jurisdiction.

California law requires counties and cities to develop comprehensive, long-term general plans to guide their land use decision making and physical development. Of the seven required "elements," or chapters, in a general plan, the safety and conservation elements most closely relate directly or indirectly to geology and soils. The safety element must establish policies to minimize potential geologic or soil instability hazards. The soils section of a conservation element may also identify areas subject to slides and erosion and include policies focusing on erosion prevention. Most cities and counties also adopt ordinances or municipal code provisions in support of general plan goals.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act directs the California Geological Survey to identify and map areas susceptible to earthquake hazards including liquefaction, earthquake induced mass wasting, and amplified ground shaking (California Department of Conservation 1990). Under the Seismic Hazards Mapping Act, the State Geologist is required to delineate seismic hazard zones. State and local agencies must regulate certain development projects within these zones until the project sites' geologic and soil conditions have been investigated, mitigation measures developed, and mitigation

measures incorporated into the project. The purpose of the Seismic Hazards Mapping Act is to reduce the threat to public safety and to minimize the loss of life and property by identifying and mitigating these seismic hazards.

3.7.3 Environmental Setting

This section provides a brief summary of the Project Area's geology and geologic and soil hazards.

California Ecoregions

The following analysis of geological resources is organized in the context of ecoregions, which are geographic areas that share general geological and topographic characteristics and similar biotic communities. In much of California, physiographic areas and geology are closely associated; although the details may differ, large areas of the state have distinctive characteristics not shared by the adjacent terrain.

The state is divided into 13 separate ecoregions: Coast Ranges, Cascades, Eastern Cascades Slopes and Foothills, Klamath Mountains/Central High North Coast Range, Sierra Nevada, Central California Foothills and Coastal Mountains, Central California Valley, Central Basin and Range, Southern California Mountains, Eastern Cascades Slopes and Foothills, Mojave Basin and Range, Northern Basin and Range, Sonoran Basin and Range, and Southern California/ Northern Baja Coast (Griffith et al. 2016). The key characteristics of each ecoregion are described below.

Coast Ranges

The Coast Ranges Ecoregion extends approximately 400 miles from the coastal mountains of western Washington to northwestern California. Typical tectonic, sedimentary, and igneous processes along the circum-Pacific orogenic belt influenced and evolved into the Coast Ranges. San Francisco Bay further separates this ecoregion into northern and southern ranges through its location in a structural depression created by the east-west expansion of the San Andreas and Hayward Faults.

In California, the Coast Ranges are composed primarily of Jurassic- to Cretaceous-age (approximately 65–150 million years old) marine sedimentary and volcanic rocks of the Franciscan assemblage. The Franciscan assemblage consists primarily of deformed and metamorphosed greywacke, mudstone, and chert. Alfisols are common in California, with Isomesic soil temperatures occurring along the coast. General topography in this ecoregion includes high and low marine terraces, sand dunes, and beaches, where landslides and debris slides are common.

Cascades

The Cascades Ecoregion is a forested, mountainous area that stretches from British Columbia, Canada, to Northern California and covers a range of approximately 18,064 square miles (Sorenson 2012). The Cascades Ecoregion is part of the Pacific Ring of Fire. Lassen Peak is the most southerly active volcano in the Cascade Range.

The Cascades Ecoregion is bounded to the west by the Klamath Mountains, Willamette Valley, and Puget Lowland Ecoregions; to the north by the North Cascades Ecoregion; and to the east by the Eastern Cascade Slopes and Foothills Ecoregion. This ecoregion contains a large amount of Cenozoic volcanic rock and has elevations ranging from 2,000 to 7,600 feet at the highest peaks with permanent snowfields and glaciers. The Cascade Subalpine/Alpine area of the Cascades Ecoregion contains prominent volcanic peaks at higher elevations. Pleistocene glaciation changed the mountainous topography through time and formed moraines, glacial lakes, and u-shaped glacial canyons (Griffith et al. 2016).

The High Southern Cascade Montane Forest area of the Cascades Ecoregion consists of a smooth volcanic plateau with isolated buttes, cones, and peaks consisting mostly of cryic soils. The Southern Cascade Foothills area consists of volcanic hills and plateaus. The western side of this ecoregion is characterized by long, steep ridges composed of eroded Oligocene to Pliocene volcanic and volcanoclastic rocks covering older Upper Cretaceous and Eocene sedimentary rocks. Soils in this ecoregion are mostly cryic and have frigid temperature regimes, although some contain mesic soil temperatures at lower elevations and to the south, with Andisols and Inceptisols being common.

Eastern Cascades Slopes and Foothills

The Eastern Cascades Slopes and Foothills ecoregion occurs in the rain shadow of the Cascades Ecoregion. The Eastern Cascades Slopes and Foothills ecoregion experiences greater temperature extremes and less precipitation, along with frequent fires. The Eastern Cascades Slopes and Foothills Ecoregion was formed through tectonic uplift and is characterized by its common volcanic cones, plateaus, and buttes. Historically, creeping ground fires burned through accumulated fuel, and devastating crown fires were less common in dry forests.

Klamath Mountains/California High North Coast Range

The Klamath Mountains/California High North Coast Range Ecoregion covers an elongated north-trending area in Northern California and southern Oregon. In California, it consists of several mountain ranges with features such as accordant summit levels, highly dissected old land surfaces, and high-elevation glacial topography.

Most of the ecoregion’s precipitation drains west through deeply incised canyons of the Klamath and Trinity Rivers and the easternmost areas drain east and then south to the Sacramento River. Rocks in this ecoregion range in age from Ordovician to Late Jurassic and comprise greywacke sandstones, mudstones, greenstones, radiolarian cherts, limestone, and igneous intrusive rocks (Irwin 1966). Concentric belts from the east to the west, referred to as the Easter Klamath, Central Metamorphic, Western Paleozoic and Triassic, and Western belts, are responsible for its pattern of distribution.

Sierra Nevada

The Sierra Nevada Ecoregion is a mountainous, extremely dissected, westerly sloping fault block. The eastern portion is heavily glaciated and contains higher mountain ranges than the Klamath Mountains to the northwest. Most of the central and southern parts are underlain by granite. A high fault scarp divides the Sierra Nevada from the Northern Basin and Range and the Central Basin and Range, where the Sierra Nevada reaches its highest elevation. Because of its Pleistocene alpine glaciation, moraines, cirques, and small lakes are common. The ecoregion slopes more gently to the west.

Central California Foothills and Coastal Ranges

The Central California Foothills and Coastal Mountains Ecoregion is characterized primarily by its Mediterranean climate, with hot dry summers and cool moist winters. Surrounding the flatter Central California Valley, this ecoregion consists mostly of open low mountains or foothills with scattered irregular plains and narrow valleys.

Central Basin and Range

The Central Basin and Range Ecoregion is a large region that encompasses most of the western US: southern Oregon, eastern California, the southern portions of Arizona and New Mexico, western Texas, and most of Nevada. The ecoregion is approximately 132,498 square miles, with only about 3.7 percent of its area falling within California (Soulard 2012). It contains alternating north-south trending faulted mountains and valley floors throughout the region.

This ecoregion is distinguished by its rugged desert country, with high topographic relief and subparallel fault-bounded mountain ranges (California State Parks 2015). Playas at the lowest elevations in the Lahontan Basin are the terminus or “sink” of rivers that flow east from the Sierra Nevada. The ecoregion also contains California’s lowest point of elevation (282 feet below sea level in Death Valley), and the highest point is 14,252 feet above sea level at White Mountain Peak.

There are three separate physiographic areas in California’s Basin and Range Ecoregion: the northernmost portion, bound by the Modoc Plateau and Nevada border; the middle portion, bound to the north by the Modoc Plateau and to the south by the Sierra Nevada region; and the largest, southernmost portion, bound to the west by the Sierra Nevada region, to the south by the Mojave Desert, and to the east by the Nevada border. The region is distinctly cut off by the Garlock Fault to the south. The mountain ranges and intervening valleys are 50–100 miles long and 15–20 miles wide (Sharp 1994). Soils in this region grade upslope from mesic Aridisols to frigid Mollisols.

Central California Valley

The Central California Valley Ecoregion consists of flat, intensively farmed plains and experiences long, hot, dry summers and mild winters. It includes fans and terraces around the edge of the valley and flat valley basins containing deep sediment adjacent to the Sacramento and San Joaquin Rivers, California’s two major rivers. The rivers flow from opposite ends of the Central Valley into the Sacramento–San Joaquin Delta and San Pablo Bay. Surrounding this ecoregion are other regions that consist of hilly or

mountainous topography. More than half of the Central California Valley Ecoregion is cropland, about three-quarters of it irrigated (Griffith et al. 2016).

Southern California Mountains

The Southern California Mountains Ecoregion has a Mediterranean climate of hot, dry summers and moist, cool winters. This ecoregion extends 200 miles and includes coastal and alluvial plains, marine terraces, and some low hills in coastal areas of Southern California. Elevations are higher, with slightly cooler summers and more precipitation than adjacent ecoregions. Mountains within this range are composed of progressively older rocks from the west to east, which is one of the ecoregion's defining characteristics. This characteristic is emphasized by faults and folds that control the trend and shape of the mountains, valleys, and coastline. Sedimentary rocks are predominantly in the west, and older igneous and metamorphic rocks predominate in the east (Sharp 1994). In parts of this ecoregion, a slope effect causes distinct ecological differences: the south-facing slope receives more precipitation (30–40 inches per year) than the northern slope (15–20 inches) (Griffith et al. 2016).

Mojave Basin and Range

The Mojave Basin and Range Ecoregion stretches across southeastern California, southern Nevada, southwestern Utah, and northwestern Arizona. It is composed of broad basins with scattered mountains that are generally lower, warmer, and drier than in the Central Basin and Range Ecoregion. The ecoregion is bounded on the north by the Central Basin and Range Ecoregion, on the east by the Colorado Plateaus and the Arizona/New Mexico Plateau Ecoregions, on the south by the Sonoran Basin and Range Ecoregion, and on the west by the Southern California Mountains and the Sierra Nevada Ecoregions. The highest elevation in the ecoregion is 7,292 feet at Clark Mountain, with valley bottoms ranging from 2,000 to 4,000 above sea level. The Mojave Desert is bordered by the Garlock Fault to the north, the San Andreas Fault to the southwest, and the southern part of Death Valley fault zone to the east (Walker et al. 2002).

Precambrian to late Cenozoic age rocks are exposed across the ecoregion. The basin's soils mostly comprise Entisols and Aridisols that typically have a thermic temperature regime. Soils are susceptible to wind and water erosion because of heavy human interference.

Northern Basin and Range

The Northern Basin and Range Ecoregion is characterized by dissected lava plains, rocky uplands, valleys, alluvial fans, and scattered mountain ranges. Aridisols are common within this range. Temperatures tend to be cooler and have more available moisture than in the Central Basin and Range Ecoregion and are higher and cooler than the Snake River Plain Ecoregion to the northeast in Idaho.

Sonoran Basin and Range

The Sonoran Basin and Range Ecoregion has similar topography to the Mojave Basin and Range Ecoregion. It is characterized by scattered low mountains and contains large tracts of federally owned land. The Sonoran Basin and Range Ecoregion is slightly hotter than the Mojave Range. Precipitation in this ecoregion during the winter decreases from west to east, with summer precipitation decreasing from the east to west. This ecoregion contains harsh environments for plant growth because of the dominant Aridisols and Entisols with hypothermic soil temperatures and highly aridic soil moisture regimes.

Southern California/Northern Baja Coast

The Southern California/Northern Baja Coast Ecoregion, extending more than 200 miles south into Baja California, contains coastal and alluvial plains, marine terraces, and a few low hills in the coastal area of Southern California.

Geology

California is located on three tectonic plates: the western boundary of the North American continental plate, the oceanic Pacific Plate, and the Gorda Plate. North of the conjunction of these three plates lies the Mendocino Triple Junction, which is the most seismically active place in California. The movement between these three plates and California's distinct climate are responsible for the state's unique topographic characteristics including its open flat valleys, expansive mountain ranges, and dramatic coastlines (Harden 1997). Baseline geologic hazards considered for the project include landslides, liquefaction, active faults, earthquakes, tsunamis and seiches, and volcanoes. The potential and severity of a geologic hazard is related to the local geology, topography, soil conditions, climate, or hydrogeologic conditions. The potential impact of a particular geologic or soil condition depends on human occupancy or activity and structural or non-structural characteristics, among other factors. This environmental analysis is to provide an overview of potential impacts from known geologic conditions within the project scope. Local hazards, however, would have to be considered within the context of site-specific conditions or activities, and would be evaluated on an individual local basis.

Landslides

California's landscape has been shaped and altered throughout the years by constant erosional processes including landslides and mass wasting. Although the mountain regions are typically more susceptible to landslides, they can occur in areas of low relief such as coastal bluffs, riverbanks, streambanks, and inland desert areas. Landslides can be caused by the gravitational pull of soil, rock, or a combination of both, or triggered by outside events such as earthquakes or heavy rainfall.

Landslide movements vary in size, style and rate of movement, and type depending on material type, steepness of slopes, sediment type, soil depth, and location. The types of geomorphic expressions of landslides include falls, topples, lateral spreads, slides, and flows:

a) *Falls* occur when masses of soil or rock are dislodged from steep slopes and free-fall downslope.
b) *Topples* typically occur when the underside of a slope or cliff loses strength (e.g., through erosion) and the upper layer of rock or soil rotates forward and falls over downslope.
c) *Lateral spreads* are often caused by liquefaction of sediment due to an earthquake or erosion on gentle slopes that produce fluid-like flow of rock or soil.
d) *Slides* occur along a distinct surface and displace masses of sediment beside one or more discrete planes.
e) *Flows* occur when material moves down a slope in the form of a fluid.

Each landslide type has different risks and can be generally classified by a geologist or engineer based on the depth and type of material that fails, amount of water involved, rate of movement, and the type of movement involved.

Landslides have three general types of triggering mechanisms: Geological (e.g., weathered materials, material permeability, and weak or sensitive materials), morphological (e.g., seismic activity, fluvial/wind erosion, vegetation loss, and shrink-swell), and anthropogenic (e.g., deforestation, irrigation, reservoir drawdown, and artificial vibration) (US Geologic Survey 2004). The most common and potentially devastating landslides are caused by water (e.g., intense rainfall, changes in groundwater levels, snowmelt), seismic activity (e.g., earthquakes, shaking-caused dilation of soil materials), and volcanic activity.

In the winter, California experiences a majority of its annual precipitation, especially in its coastal and mountainous areas from severe winter storms. Excess rainfall or snowmelt can significantly alter groundwater levels and surface runoff, which can saturate slopes, leaving them prone to failure. Flooding is often caused by landslides due to similar triggering mechanisms such as intense rainfall, increased runoff, and blocked valleys and stream channels.

The primary regions of California that are prone to landslides are the coastal and mountainous areas (US Geologic Survey 2004). Mountainous areas are more susceptible because of high levels of seismic activity, generally associated with active faults and volcanoes accompanied by steep slopes and weak sediment types. Uplifted, naturally fragile rocks consisting of poorly consolidated sediments or marine deposits of mudstone or siltstone are highly susceptible to slope failure caused by ground shaking. Additionally, shearing along active fault zones and the folding and faulting of geologic materials during subduction and accretion can weaken earthen materials that are prone to landsliding. Lastly, volcanic activity can cause regionally devastating landslides. When volcanic lava and steam eruptions occur, the snowpack melts at a very high rate, resulting in large-volume rock, soil,

and ash flows; these flows can travel rapidly downhill slopes and stream channels and erode the underlying topography. A prime example of this process is the collapse of the volcano Mount Shasta in Northern California approximately 350,000 years ago, which caused a large debris avalanche that resulted in dramatic erosion.

Liquefaction

Liquefaction is the process in which water-saturated sediment temporarily loses its viscosity and acts as a fluid during ground shaking events. During liquefaction, ground shaking causes waterlogged soil to collapse and decreases the overall volume of soil, causing it to temporarily lose strength and become more fluid. This can cause ground deformations and failures, increase lateral earth pressure, and result in a temporary loss of soil-bearing capacity, all of which can damage buildings and other structures. Liquefaction can increase the buoyancy of structures buried in water bodies, potentially causing them to shift and uplift toward the surface. Liquefaction generally results from strong ground shaking caused by earthquakes.

The Project Area could be susceptible to liquefaction; however, regions with poorly drained, fine-grained soils (sandy, silty, and gravely soils) are the most susceptible.

Active Faults

A fault is a fracture or zone of fractures between two blocks of rock. These fractures allow the blocks to move relative to each other. Movement can occur rapidly (i.e., earthquake) or slowly (i.e., creep) and can range from a few feet to thousands of miles long (US Geologic Survey 2022). Most faults create repeated displacement over time. A fault zone is a zone of typically braided and subparallel of related faults that may branch and diverge. These zones can vary in width from a few feet to several miles.

Approximately 15,700 known faults are mapped in California, of which more than 500 are active. Under the Alquist-Priolo Earthquake Fault Zoning Act, a fault is designated as active if it has ruptured in the last 11,000 years. An active fault has the potential for surface rupture; under the Alquist-Priolo Act, a structure to be occupied by humans may not be built over or within 50 feet of an active fault.

Earthquakes

California is one of the most active, geomorphological diverse, scenic locations in the US Millions of years ago, the shift in plate tectonics converted the passive margin of the North American Plate into an active margin of compressional and translational tectonic regimes.

California’s northern, central, and southern coastal areas are more susceptible to earthquakes, but hundreds of identified faults exist within the state’s borders. Based on slip rates within the last 10,000 years, approximately 200 faults are considered potentially hazardous. More than 70 percent of California’s population lives within 30 miles of a fault where high ground shaking could occur within the next 50 years (California Department of Conservation 2019). Earthquakes are a familiar and unpredictable phenomenon in California, in terms of both location and magnitude.

The San Andreas Fault is one of California's best known and most notable faults. The fault runs through the state for approximately 800 miles between the convergence of the Pacific and North American Plates. Its southern terminus starts south of California in the Gulf of California, and runs northwest through the Salton Trough, continuing north until it reaches the Transverse Ranges where it turns east-west. North of the Transverse Ranges, the San Andreas Fault again runs northwest until it cuts off at the Mendocino Triple Junction off the Humboldt County coast. Some of the state's most devastating earthquakes have occurred on the San Andreas Fault, including the 1906 San Francisco earthquake (magnitude 7.7 to 8.3) and the 1857 Fort Tejon earthquake (magnitude 7.9).

While the San Andreas Fault is the cause of significant recent earthquakes, the Cascadia subduction zone, located farther north, has a greater capability to create strong ground shaking, vertical land displacement, and tsunamis. The Cascadia subduction zone is a 600-mile-long, north-to-northwest running collection of faults extending from southern British Columbia to the Mendocino Triple Junction. The Cascadia subduction zone has the potential to create large earthquakes with magnitudes of 9.0 or greater every 250–500 years, on average.

Tsunamis and Seiches

Tsunamis are high-magnitude, long sea waves caused by earthquakes, submarine landslides, or other disturbances that displace large volumes of water. Areas along the Pacific coast is the most susceptible to the destructive effects of tsunamis, as major subduction zone earthquakes occur in the Northern and Southern Hemispheres. These earthquakes move the earth's crust at the bottom of the ocean floor, sending large quantities of water into motion and spreading tsunami waves throughout the Pacific Ocean.

California's long coastline and active tectonic structure make it particularly vulnerable to tsunamis and vertical land movement. Tsunamis can also result from submarine landslides that displace large volumes of water. Seismically generated landslides, rock falls, rock avalanches, and the eruption or collapse of island or coastal volcanoes can create subaerial landslide tsunamis; however, they are generally caused by major earthquakes or coastal volcanic activity.

Seismic seiches are standing waves caused when seismic waves from an earthquake travel through a closed or semi-enclosed body of water such as a lake or bay. Seiches can be observed several thousand miles from the location of an earthquake because of the long-period seismic waves created after the earthquake. Small bodies of water (i.e., lakes and ponds) are especially susceptible to seismic seiches.

Volcanoes

Volcanoes are openings in the earth's crust where molten rock from below the surface is expelled in the form of lava. Molten rock below the earth's surface is classified as magma; once it erupts or flows, it is termed lava. In addition to lava, during a volcanic eruption, rock, ash, and gases are released into the atmosphere. Volcanoes are generally formed at the edge of tectonic plates, and as a result, California is home to

many active volcanic areas. Some of the most active are found along a volcanic chain that is a result of compressional tectonics along the Cascadia subduction zone within the Cascade Range (located within Regional Water Board Regions 1, 2, and 3).

The Modoc Plateau is a southern extension of eastern Oregon and Washington's Columbia River Plateau. Located on the Nevada border between the Warner Mountains and Surprise Valley, the Modoc Plateau extends west to the edge of the southern Cascade Range. Its lava flows are typically more basaltic and less explosive than those along the Cascadia subduction zone. Previous eruptions (that occurred between 200 and 300 years ago) have created a subtler terrain of shield volcanoes and broad lava plateaus.

Long Valley Caldera near Mammoth Mountain (located within Regional Water Board, Region 6) is one of the largest calderas on earth, measuring approximately 20 miles long from east to west, and is included in the Mono-Inyo Craters volcanic chain in eastern California. A caldera is a large depression at the top of a volcanic cone, formed by the collapse of an underlying magma chamber after a major volcanic eruption. After showing signs of activity in the 1980s, the Long Valley area is being closely monitored for earthquake activity to proactively discover early signs of eruptions.

Several areas of California located near fault lines contain hot springs, where geothermal heat heats up groundwater and creates steam, which erupts from large magma chambers. These areas are found in the Coast Ranges (including Geyserville, south of Clear Lake, within Regional Water Board Region 1) and at the base of the Sierra Nevada (east of Mammoth Lakes, within Regional Water Board Region 6). The occurrence of geothermal heat is another sign of active volcanism in California.

Soils

Soil conditions in California are highly variable. California's diverse geologic, topographic, climatic, temporal, and vegetative environments all influence the formation and composition of the state's soils. Unlike California's geomorphic provinces, soils in the state do not have specific characteristics or properties that distinguish them by region. Instead, there is a gradational transition between the characteristics of one soil versus another.

Soil Classification

Soils are classified in various ways, depending on the application of the information. Engineers evaluate and classify soils in regard to the engineering properties of the soil (e.g., Unified Soil Classification System). Soil scientists group soils together based on their intrinsic properties, geologic origin, and soil behavior in different conditions. The US Natural Resources Conservation Service uses the US Department of Agriculture's soil taxonomy system to classify soils. This method of classification is based on the chemical, biological, and physical characteristics of soils such as soil color, texture, structure, mineralogy, salt content, and depth. These characteristics are defined in the 2017 US Department of Agriculture (USDA) Soil Survey Manual, and in Soils and Geomorphology, authored by Peter Birkeland (1984).

Maps created by the Natural Resources Conservation Service, such as the US General Soil Map and the Soil Survey Geographic digital databases, should be used when evaluating soil affected by a proposed project. These maps and others include detailed information about soils, their physical and chemical properties, and suitability for a variety of uses. For projects with a broad geographical scale, soil associations are generally used to determine the distinctive pattern of soils, relief, and drainage in an area and are grouped by soils that occur together in the landscape named after two or three dominant soil series.

General Soil Hazards

Soil Erosion

Soil erosion is caused by the detachment and entrainment of soil particles, commonly the result wind and water movement. Soils that are high in coarse silt– and fine sand–sized particles and generally low in organic matter are more susceptible to erosion (Donahue et al. 1983). Soils covered by larger amounts of vegetation experience less erosion than unvegetated areas. In general, soils in heavily vegetated areas have more surface cover and greater soil structure from plant roots, which reduce the potential for erosion. Disturbed soils or soils with a combination of reduced vegetation and disturbance are more prone to erosion. Steep slopes (e.g., with a greater than 10 percent gradient) have a greater capability for soil erosion caused by water because of their increased runoff velocities.

The erosion rate of a particular soil, without interference from human activity, is called the natural (background) or geologic erosion rate. Accelerated soil erosion is any type of erosion that occurs over the natural erosion rate and is generally the result of human activities (e.g., grazing, timber harvesting, land-disturbing activities). Accelerated erosion is often referred to as anthropic, historic, or man-induced erosion (Toy 1982).

Shrink, Swell, and Expansive Soils

An expansive soil's potential shrink and swell is a product of the soil's change in moisture and resulting change in soil volume; the soils expand when wet and shrink when dry. The extent of shrinking and swelling is based on the amount and type of clay in the soil. Montmorillonite, smectite, bentonite, and illite are common clay materials that absorb water and can cause soil to swell by more than 10 percent of their original volume. The volume increase occurs when water molecules are absorbed between clay minerals. Once the expanded clay dries, the lack of water molecules will cause the soil to shrink, resulting in a volume decrease. This shrink-and-swell cycle can exert pressure on building foundations and infrastructure, causing damage by removing structural support, and on roads by causing surface cracking and runoff infiltration. Shrinking and swelling can also create soil fissures, which allow deeper penetration of water during wet conditions. Although they can be found throughout the state, expansive soils are most common along the coast and coastal mountains along the entire length of California.

Land Subsidence

Land subsidence is the loss of surface elevation due to removal of subsurface support. Subsidence time is often the result of subsurface extraction of substances such as liquids, gas, or minerals, and may also be initiated by seismic ground motions. Subsidence as a result of groundwater removal in excess of groundwater recharge is generally spread across broad areas. Extensive agricultural pumping has resulted in soil compaction and lowered ground surfaces in the San Joaquin Valley and the Imperial Valley. Subsidence from extraction of liquids and gas is typically incremental over extended periods of time and the damage is observed in off-set structures, roads, or other features. Earthquake ground shaking may amplify the effects of extraction activities or other subsurface disturbances, resulting in sudden subsidence.

Paleontological Resources

Paleontology is the study of life forms in past geologic time, specifically through the study of plant and animal fossils. Paleontological resources represent a small, nonrenewable, and impact-sensitive scientific and educational resource. Paleontological resources are sites or geologic deposits that consist of unique and unusual individual fossils or assemblages of fossils, diagnostically or stratigraphically important, and add to the existing body of knowledge in particular areas (e.g., stratigraphically, taxonomically, or regionally).

Fossils can be used to determine the geological events and relative ages of depositional layers to better understand the development of the region and area. The age, abundance, and distribution of fossils depend on the topography of the area and geologic formation in which they occur. In California, these resources (e.g., vertebrate, invertebrate, and plant fossils) are generally found in sedimentary and metasedimentary deposits.

3.7.4 Impact Analysis

Method of Analysis

Project Activity impacts to geology, topography, soils, and how those could contribute to geologic hazards were analyzed qualitatively using best professional judgment. The analysis evaluates how Project Activities could increase the potential risk of personal injury, loss of life, and damage to property under the Project Area's existing geologic or soil conditions. The Project Area's geological environmental baseline encompasses a legacy of disturbance from Utility Service operation and maintenance and wildfire mitigation activities. Project Activities permitted under this General Order would potentially cause additional disturbance due to the nature of enhanced wildfire prevention and post-fire response. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities related to the proposed project. This section describes impacts in terms of location, context, duration, and intensity, and recommends mitigation measures, when necessary, to avoid or minimize impacts. The analysis

assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to geology and soils would be considered significant if projects permitted under the General Order would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    a. Rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42;
    b. Strong seismic ground shaking;
    c. Seismic-related ground failure, including liquefaction;
    d. Landslides.
2. Result in substantial soil erosion or loss of topsoil;
3. Be located on a geologic unit or soil that is unstable or that would become unstable because of the project and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life and property;
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater;
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impacts and Mitigation Measures

For impacts 1 through 4, the following General Order requirements will avoid or minimize impacts to Geology and Soils:

- **Access Route Standards** – If not properly designed and maintained, unpaved access routes can be a major source of sediment and other pollutants to surface waters. These standards ensure that access routes are designed and maintained in a manner that will minimize erosion and sedimentation. Such standards include installation of drainage structures on the route surface that hydrologically disconnect road runoff from waterbodies.
- **Construction Best Management Practices** – requires implementation of appropriate BMPs to prevent construction activity impacts on natural resources, including structural controls to prevent and reduce the discharge of pollutants from runoff, spillage or leaks, and waste disposal. Best management practices

also include non-structural controls such as scheduling construction to avoid special status species impacts and preserving existing vegetation.

- **Restoration Plans** – Projects have the potential to adversely impact the environment even after construction activities are complete if the project site is not appropriately restored. The intent of this requirement is to ensure that project areas are fully restored to pre-existing conditions after construction activities are complete. Restoration includes stabilizing disturbed areas, replanting native vegetation, regrading slopes to pre-construction contours, and removing all construction equipment.

In addition, in some instances, other State or Regional Water Board permits may be required for Project Activities. For example, the Construction General Permit establishes erosion and sediment control standards for activities that disturb over an acre of soil. Collectively, these requirements will avoid and minimize impacts to Geology and Soils from Project Activities.

Impact GEO-1: Would projects permitted under the General Order expose people or structures to potential substantial adverse effects, including risk of loss, injury, or death involving:
i) Rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42? (Less-than-Significant Impact)

The issuance of this General Order, and the expected Project Activities permitted thereunder, would not alter the seismic setting or underlying geologic conditions and therefore, would not increase the risk of a fault rupture. Project Activities do not include the construction of large new facilities and equipment that could rupture a fault.

Of the Project Activities, the only activity that could affect fault ruptures is trenching. Generally, it is expected that trenching will be less than 10 ft deep and will not occur on a fault line. Therefore, there is no increased risk or severity of effects on a fault line. Other activities are surface level and vibration will be minimal. Therefore, Project Activities would have a **less-than-significant impact**.

ii) Strong seismic ground shaking? (Less-than-Significant Impact)

Utility Service infrastructure and active Project Activities could be subject to strong seismic ground shaking. As previously discussed in Impact GEO-1i, Utility Service infrastructure could sustain damage in the event of strong seismic shaking and potentially result in substantial adverse effects. However, Project Activities, which involve existing facilities and access road construction, would not exacerbate the existing risks associated with seismic shaking. As a result, Project Activities would reduce potential seismic impacts to infrastructure. Therefore, Project Activity impacts would have a **less-than-significant impact**.

iii) Seismic-related ground failure, including liquefaction? (Less-than-Significant Impact)

Project Activities are not known to increase the risk to people or structures from seismic-related ground failure or liquefaction. Utility Service infrastructure and active Project Activities could be subject to seismic-related ground failure. In the event of seismic-related ground failure, Utility Service infrastructure could be damaged and result in substantial adverse effects to the environment. As previously discussed, Utility Service Project Activities would continue to ensure and enhance the safety and reliability of existing facilities and reduce the risk of potential impacts from seismic-related ground failure. Therefore, Project Activities would have a **less-than-significant impact**.

iv) Landslides? (Less-than-Significant with Mitigation Incorporated)

Project Activities could occur in mountainous locations where there is a higher risk of slope failure compared to flatter portions of the Project Area. Project Activities could include excavation, grading, vegetation removal, and other ground disturbances that could reduce slope stability. A post-fire environment might have an increased risk of landslides because of burn scars. Additionally, rainfall activities could cause surface level landslides. Therefore, Project Activities could have potentially significant adverse effects related to landslides.

Mitigation
The General Order includes requirements for site stabilization, runoff controls, and erosion management practices. In addition, Utility Services will be required to implement the following mitigation measure.

Mitigation Measure GEO-1 Adherence to Utility Earthwork Standards
Utility Services would conduct Project Activities in compliance with all applicable utility and earthwork regulatory standards, including those required by the CPUC, Institute of Electrical and Electronics Engineers 693 standards, California Building Code, and other existing federal, state, and local laws, regulations, and/or standards.

Significance After Mitigation
Implementation of Mitigation Measure GEO-1 requires Utility Services to conduct Project Activities in compliance with the applicable CPUC regulations, Institute of Electrical and Electronics Engineers 693 design specifications, and California Building Code standards. As a result, the regulations and standards would require Utility Services to conduct geological assessment and reporting when working in potentially problematic areas, design structures to resist stress from lateral forces caused by wind and earthquakes, and incorporate specifications for grading on unstable soils, like expansive soils and areas subject to liquefaction. Therefore, implementation of the General Order requirements and Mitigation Measure GEO-1 would reduce the potential for Project Activities to directly or indirectly cause landslides and Project Activities would have a **less-than-significant impact with mitigation**.

Impact GEO-2: Would projects permitted under the General Order directly or indirectly cause substantial soil erosion or loss of topsoil? (Less-than-Significant with Mitigation Incorporated)

Ground disturbance from Project Activities will primarily result from access road construction and reconstruction, creation and use of staging areas on undisturbed soils, undergrounding powerlines, and vegetation management. Removal of vegetation could increase the risk of soil erosion or loss of topsoil. Additionally, precipitation on the disturbed soils could result in substantial soil erosion and loss of topsoil. Therefore, the Project Activities could result in a potentially significant adverse effect related to substantial soil erosion or loss of topsoil.

Mitigation

As described above in Impact GEO-1iv, Mitigation Measure GEO-1 would require Utility Services to conduct Project Activities in compliance with earthmoving and utility construction regulations. Further, Project Activities would continue to ensure and enhance the safety and reliability of existing facilities and reduce the risk of impacts that could result from erosion and loss of topsoil. In addition, General Order requirements address culvert sizing and placement for access roads, which will reduce the long-term erosion risk and loss of topsoil from access roads. The General Order also requires site specific restoration plans that include grading to pre-project contours and planting species native to the Project Area.

Significance After Mitigation

The implementation of General Order requirements and Mitigation Measure GEO-1 will reduce Project Activity impacts to a less than significant level. Therefore, Project Activity impacts to erosion and the loss of topsoil would be **less-than-significant with mitigation.**

Impact GEO-3: Would projects permitted under the General Order be located on a geologic unit or soil that is unstable or that would become unstable because of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? (Less-than-Significant with Mitigation Incorporated)

As a result of trenching or excavation, Project Activities could destabilize slopes or cause other forms of ground failure. Heavy equipment use may also destabilize soils, especially when operated on soils that are already unstable. In addition, post-fire response activities could occur on unstable soils destabilized by the loss of vegetation and root structure that holds soils in place. Project Activities do not include the construction of large new facilities and equipment that could rupture a fault, or cause lateral spreading, subsidence, liquefaction, or collapse.

Regardless, Project Activities could be located on a geologic unit or soil that is unstable or that would become unstable because of the Project Activities, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse and those impacts could be potentially significant.

Mitigation
As described above in Impact GEO-1iv, Mitigation Measure GEO-1 would require Utility Service*s* to conduct Project Activities in compliance with earthmoving and utility construction regulations. In addition, the General Order includes requirements for erosion control measures to prevent slope failure.

Significance After Mitigation
The implementation of General Order requirements and Mitigation Measure GEO-1 will reduce Project Activity impacts to a less-than-significant level. Therefore, Project Activity contribution to the likelihood of unstable soils and landslides would be **less-than-significant with mitigation**.

Impact GEO-4: Would projects permitted under the General Order be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? (Less-than-Significant with Mitigation Incorporated)

Project Activities could occur on expansive soil. Project Activities could disturb soil and destabilize slopes. The “shrink and swell” discussed above in the Environmental Setting could occur on or near Utility Service infrastructure and create substantial direct or indirect risk to life or property. Therefore, Project Activities that occur on or near expansive soils could have a potentially significant impact to risks to life or property.

Mitigation
As described above in Impact GEO-1iv, Mitigation Measure GEO-1 would require Utility Services to conduct Project Activities in compliance with earthmoving and utility construction regulations. In addition, the General Order contains requirements for erosion control measures to prevent slope failure.

Significance After Mitigation
The implementation of Mitigation Measure GEO-1 will reduce Project Activity impacts to a less than significant level. Therefore, Project Activity impacts to life and property from work on or near expansive soils would be **less-than-significant with mitigation.**

Impact GEO-5: Would projects permitted under the General Order have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (No Impact)

Project Activities would not require the installation or use of septic tanks or alternative wastewater disposal systems. Therefore, there would be **no impact** and no mitigation required.

Impact GEO-6: Would projects permitted under the General Order directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Less-than-Significant with Mitigation Incorporated)

Project Activities would primarily occur on existing facilities. Any major or minor unique paleontological resource, paleontological sensitive map unit, or unique geologic feature should have been previously identified. As a result, impacts to paleontological resources or unique geologic features are not anticipated where Utility Services activities previously conducted work. However, access road construction will require earth moving activities in new locations near existing facilities. Project Activities could uncover unanticipated paleontological resources or unique geologic features.

Project Activities permitted under the General Order could directly or indirectly result in the loss of a unique paleontological resource or geological resource, if projects are located on or near areas where sediment with moderate to high paleontological sensitivity occurs. Because the potential exists for projects permitted under the General Order to result in adverse effects on paleontological or geological resources, this impact would be potentially significant.

Mitigation

Implementation of Mitigation Measure GEO-2 would inform Utility Services of the Project Area's potential to contain paleontological resources. If the project occurs on a paleontological sensitive map unit, a qualified paleontologist would develop a paleontological resource monitoring and recovery plan. Mitigation Measure GEO-3 details training procedures for the construction crews working on sensitive paleontological sites. If Project Activities uncover paleontological resources, the paleontological resource monitoring and recovery plan would detail the Utility Service's steps to avoid impacts.

> **Mitigation Measure GEO-2: Conduct General Project-Level Analysis for Paleontological Sensitive Units**
>
> Prior to breaking ground, Utility Services would be required to assess whether the proposed project occurs on a paleontologically sensitive unit. If the proposed project occurs on a paleontological sensitive map unit, a qualified paleontologist would develop a paleontological resource monitoring and recovery plan. The paleontological resource monitoring and recovery plan would detail monitoring

protocols for ground disturbance proposed in sediment with a moderate to high paleontological sensitivity. The monitoring and recovery plan would be designed and 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 the recovery program would be implemented. If mitigation measure GEO-2 determines the project occurs on a paleontological sensitive unit, mitigation measure GEO-3 below would also be implemented.

Mitigation Measure GEO-3: Conduct Paleontological Training to Construction Crews

If after implementing mitigation measure GEO-2, the proposed project was determined to occur in a location with moderate to high paleontological sensitivity, a qualified paleontologist shall prepare paleontological resources sensitivity training materials prior to ground disturbance for use during project worker environmental training. This training shall be conducted by an environmental professional under the supervision of a qualified paleontologist. Prior to ground disturbance, all construction personnel onsite will receive paleontological resources sensitivity training, even if they arrive after initial ground disturbance begins. The paleontological resource sensitivity training shall report the types of resources that could be encountered within the project site and the procedures to follow if they are found; if paleontological resources are detected, all work within at least 100 feet should be halted until a qualified paleontological resources specialist evaluates the item for its significance and records the item. 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.

Significance After Mitigation

Through implementation of Mitigation Measures GEO-2 and GEO-3, Project Activity impacts to paleontological resources and unique geologic features would be **less-than-significant with mitigation**.

3.8 GREENHOUSE GAS EMISSIONS

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

3.8.1 Introduction

This section discusses greenhouse gas emissions in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, potential impacts include directly or indirectly affecting greenhouse gas emissions, and conflict with any applicable greenhouse gas management plan, policy, or regulation.

3.8.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to greenhouse gas emissions in the Project Area.

Federal

The USEPA is the federal agency responsible for implementing the Clean Air Act and its amendments. In 2007, The US Supreme Court ruled carbon dioxide is an air pollutant as defined under the Clean Air Act, and that the USEPA has the authority to regulate greenhouse gas emissions. Based on the ruling in this case, USEPA took steps to regulate greenhouse gas emissions and lent its support to state and local agencies' efforts to reduce greenhouse gas emissions. Federal laws related to climate change, or the reduction of greenhouse gas emissions are detailed in the following subsections.

Endangerment Finding

On April 17, 2009, the USEPA issued its proposed endangerment finding for greenhouse gas emissions. On December 7, 2009, the USEPA Administrator signed the following two distinct findings regarding greenhouse gases under Section 202(a) of the Clean Air Act:

1. Endangerment Finding: The USEPA found that the current and projected concentrations of the six key, well-mixed greenhouse gases—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs)—in the atmosphere threaten the public health and welfare of current and future generations.
2. Cause or Contribute Finding: The USEPA found that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to greenhouse gases pollution, which threatens public health and welfare.

The endangerment finding does not impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the USEPA's proposed greenhouse gases emissions standards for light-duty vehicles, which were jointly proposed by the USEPA and the US Department of Transportation's National Highway Traffic Safety Administration on September 15, 2009.

Mandatory Reporting of Greenhouse Gases (Title 40, Part 98 of the Code of Federal Regulations)

The USEPA's rule titled Mandatory Reporting of Greenhouse Gases (Title 40, Part 98 of the Code of Federal Regulations) requires mandatory reporting of greenhouse gases for certain facilities. Subpart DD of the rule, titled Electrical Transmission and Distribution Equipment Use, applies to Sulphur hexafluoride reporting from gas-insulated substations.

Under the reporting thresholds of Subpart DD, owners and operators of electric power system facilities with a total nameplate capacity that exceeds 17,820 pounds (7,838 kilograms) of Sulphur hexafluoride and/or perfluorocarbons must report the associated emissions from the use of electrical transmission and distribution equipment. Owners or operators must collect emissions data; calculate greenhouse gas emissions; and follow the specified procedures for quality assurance, missing data, recordkeeping, and reporting.

The rule requires each electric power system facility operator to report the total Sulphur hexafluoride and/or perfluorocarbons emissions (i.e., emissions from equipment leaks, installation, servicing, decommissioning, disposal, and storage cylinders) from the following types of equipment:

1. gas-insulated substations;
2. circuit breakers;
3. switchgears, including closed-pressure and hermetically sealed pressure switchgears;
4. gas-insulated lines containing Sulphur hexafluoride or perfluorocarbons;
5. gas containers, such as pressurized cylinders;
6. gas carts;
7. electric power transformers; and
8. other containers of Sulphur hexafluoride and/or perfluorocarbons.

Presidential Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, Section 5

On January 20, 2021, President Biden signed an executive order on climate change. Section 5 (Accounting for the Benefits of Reducing Climate Change) of the Executive Order establishes an interagency working group to determine social costs of greenhouse gas emissions, specifically of carbon, methane, and nitrous oxide. The working group will establish metrics in monetized units for measuring the social costs of these greenhouse gases. These damage measures will include changes in net agricultural productivity, impacts to human health, ecosystem service values, and property damage from the increased risk of flooding. The social analysis is intended to guide future policy for the reduction of greenhouse gas emissions.

Vehicle Emissions Standards

The first federal fuel economy standards for motor vehicles were established by congress in 1975 under the Energy Policy and Conservation Act. Standards have been updated in subsequent years over different administrations. In 2012, standards required vehicles made between 2017 and 2025 to achieve 54.5 miles per gallon for passenger cars and an industry average of 46.7 miles per gallon for all vehicles by 2025 in order to reduce CO_2 emissions. These standards were subsequently rolled back under the Safer and Affordable Fuel-Efficient Rule. The Safer and Affordable Fuel-Efficient Rule reduced fuel economy requirements for all vehicles to an average of 37 miles per gallon across the industry based on the argument that it was infeasible to attain the vehicle fuel efficiency standards set in 2012, as well as increased safety of vehicles. The Safer and Affordable Fuel-Efficient Rule is under review based on a presidential executive order issued on January 20, 2021.

State

Assembly Bill 32 — California Global Warming Solutions Act of 2006

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, codified the state's greenhouse gas emissions target by requiring that the state's global warming emissions be reduced to 1990 levels by 2020. Since being adopted, the California Air Resources Board, the California Energy Commission, the CPUC, and the California Building Standards Commission have been developing regulations that will help meet the goals of AB 32. The AB 32 Scoping Plan identifies specific measures to reduce greenhouse gas emissions to 1990 levels by 2020 and requires California Air Resources Board and other state agencies to develop and enforce regulations and other initiatives for reducing greenhouse gas emissions (California Air Resources Board 2014a). Specifically, the AB 32 Scoping Plan articulates a key role for local governments, recommending they establish greenhouse gas emissions reduction goals for both their municipal operations and the community that are consistent with those of the state.

Executive Order B-30-15

On April 20, 2015, Governor Edmund G. Brown Jr. signed Executive Order B-30-15, which established a greenhouse gas emissions reduction target for California of 40 percent below the 1990 level by 2030. The Executive Order aligns California's greenhouse gas emissions reduction targets with those of leading international governments such as the 28-nation European Union, which adopted the same target in October 2014. The California Global Warming Solutions Act of 2006 (AB 32, discussed below) established the target of reducing greenhouse gas emissions to the 1990 level by 2020.

Meeting California's emissions reduction target for 2030, emissions 40 percent below the 1990 level, will make it possible to reach the ultimate goal of reducing emissions to 80 percent below the 1990 level by 2050. This is in line with the scientifically established levels needed in the US to limit global warming below 2 degrees Celsius—the warming threshold at which there will likely be major climate disruptions such as super droughts and rising sea levels, according to scientific consensus.

Executive Order S-3-05

Executive Order S-3-05 (2005) asserted that California is vulnerable to the effects of climate change. To combat this concern, the order established the following greenhouse gas emissions reduction targets: by 2010, reduce greenhouse gas emissions to 2000 levels; by 2020, reduce greenhouse gas emissions to 1990 levels; by 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

Executive Orders are legally binding only on state agencies. Accordingly, Executive Order S-3-05 guides state agencies' efforts to control and regulate greenhouse gas emissions but has no direct, binding effect on local government or private actions. The secretary of the California Environmental Protection Agency is required to report to the

governor and state legislature biannually regarding the impacts of global warming on California, mitigation and adaptation plans, and progress made toward reducing greenhouse gas emissions to meet the targets established in this Executive Order.

Regulation for Reducing SF6 Emissions from Gas-Insulated Switchgear

The purpose of this regulation (17 California Code of Regulations Section 95350 et seq.) is to achieve greenhouse gas emission reductions by reducing sulfur hexafluoride emissions from gas-insulated switchgear. Owners of such switchgear must not exceed maximum allowable annual emissions rates, which are reduced each year until 2020, after which annual emissions must not exceed 1 percent. As defined by the regulation, the annual emissions rate means the gas-insulated switchgear owner's total annual sulfur hexafluoride emissions from all active gas-insulated switchgear equipment divided by the average annual sulfur hexafluoride nameplate capacity of all active gas-insulated switchgear equipment. Owners must regularly inventory gas-insulated switchgear equipment, measure quantities of sulfur hexafluoride, and maintain records for at least 3 years. Additionally, by June 1 of each year, owners also must submit an annual report to California Air Resource Board executive officer for emissions that occurred during the previous calendar year (California Air Resources Board 2014b).

Senate Bill 32

Senate Bill 32 (2016) requires California Air Resources Board to ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the 1990 level by 2030, consistent with the target set forth in Executive Order B-30-15. California Air Resources Board adopted California's 2017 Climate Change Scoping Plan (2017 Scoping Plan) in November 2017 to meet the greenhouse gas reduction requirement set forth in SB 32. It proposes continuing the major programs of the AB 32 Scoping Plan, including cap-and-trade regulation; the Low Carbon Fuel Standard; more efficient cars, trucks, and freight movement; California's Renewables Portfolio Standards; and reducing methane emissions from agricultural and other wastes. The 2017 Scoping Plan also addresses for the first time the greenhouse gas emissions from natural and working lands in California.

Senate Bill 97

Senate Bill 97 of 2007 required amendment of the CEQA Guidelines (14 California Code of Regulations Section 15000 et seq.) to incorporate analysis of, and mitigation for, greenhouse gas emissions from projects subject to CEQA. The amendments added Section 15064.4 to the CEQA Guidelines, specifically addressing the potential significance of greenhouse gas emissions.

Section 15064.4 calls for a "good faith effort" to "describe, calculate or estimate" greenhouse gas emissions and indicates that the analysis of the significance of any greenhouse gas impacts should include consideration of the extent to which the program would do any of the following: increase or reduce greenhouse gas emissions; exceed a locally applicable threshold of significance; or comply with "regulations or

requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions."

The CEQA Guidelines also state that a project may be found to have a less-than-significant impact related to greenhouse gas emissions if the project complies with an adopted plan that includes specific measures to sufficiently reduce greenhouse gas emissions (14 California Code of Regulations Section 15064[h][3]). Importantly, however, the CEQA Guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of greenhouse gas emissions.

Senate Bill 350 — Clean Energy and Pollution Reduction Act of 2015

The key provisions of SB 350, the Clean Energy and Pollution Reduction Act of 2015, require the following: California's Renewables Portfolio Standard of 50 percent by 2030; and a doubling of energy efficiency (electrical and natural gas) by 2030, including improvements to the efficiency of existing buildings.

These mandates will be implemented by future actions of the CPUC and California Energy Commission.

Senate Bill 375

Senate Bill 375, signed by Governor Schwarzenegger in September 2008, aligns regional transportation planning efforts, greenhouse gas emissions reduction targets, and land use and housing allocation. Senate Bill 375 requires metropolitan planning organizations to adopt a sustainable community strategy or alternative planning strategy, showing prescribed land use allocation in each metropolitan planning organization's regional transportation plan. The California Air Resources Board, in consultation with the metropolitan planning organizations, will provide each affected region with reduction targets for greenhouse gases emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

Senate Bills 1078, 107, and 2 — Renewables Portfolio Standard

Senate Bills 1078 (2002), 107 (2006), and 2 (2011), known collectively as California's Renewables Portfolio Standard, obligate investor-owned utilities, energy service providers, and Community Choice Aggregators[4] to procure additional retail sales per year from eligible renewable sources with the long-range target of procuring 33 percent of retail sales from renewable resources by 2020. The CPUC and California Energy Commission are jointly responsible for implementing the program.

[4] Community Choice Aggregators are local governmental entities that procure electricity on behalf of retail electricity customers within a geographic area.

Regional and Local

Regional Regulations

The Project Area encompasses the counties, cities, and air districts of California. Each county, city, and air district have local regulations, an air quality management plan, a general plan, and in some cases a climate action plan, containing goals and policies to improve air quality and address community health and sustainability. Counties and cities may set community greenhouse gas emissions reduction targets, require BMPs to reduce emissions of air pollutants such as fugitive dust, and reinforce local air district recommendations.

General Plans

California law requires counties and cities to develop comprehensive, long-term general plans to guide their land use decision making and physical development. All of the seven required elements, or chapters, in a general plan, with the exception of noise, have some relation to greenhouse gas emissions. For instance, the circulation element must establish policies to reduce vehicle miles traveled and greenhouse gas.
The development patterns in the land use element influence greenhouse gas emissions. The housing element is a critical tool in implementing policies and programs that reduce greenhouse gas emissions and promote sustainable development. General plans may also contain additional elements on topics of concern to the local community, which could have an effect on greenhouse gas emissions. Climate Action Plans, which should be consistent with general plans and may be adopted as part of the general plan, typically include greenhouse gas reduction and climate change adaptation measures.

3.8.3 Environmental Setting

The specific chemical properties of greenhouse gases enable them to become well mixed within the atmosphere and transported over long distances. Consequently, unlike other resource areas that are primarily concerned with localized program impacts (e.g., impacts within 1,000 feet of a program site), the global nature of climate change requires a broader analytic approach. The following subsections provide background information on global climate change and principal greenhouse gases associated with Utility Service wildfire mitigation activities.

The Greenhouse Effect

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). A greenhouse gas is any gas that absorbs infrared radiation in the atmosphere; in other words, greenhouse gas trap heat in the atmosphere. The greenhouse effect is the trapping and build-up of heat in the atmosphere near the Earth’s surface. The greenhouse effect traps heat in the atmosphere through a threefold process: short-wave radiation emitted by the sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and greenhouse gases

in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Without it, the average temperature of the Earth would be about 0 degrees Fahrenheit instead of its present 57° Fahrenheit. If the atmospheric concentrations of greenhouse gases rise, the average temperature of the lower atmosphere will gradually increase. Global climate change concerns are focused on what human activities are increasing the greenhouse effect.

Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to changes in temperatures and precipitation. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects:

1. higher maximum temperatures and more hot days over nearly all land areas;
2. higher minimum temperatures and fewer cold days and frost days over nearly all land areas;
3. reduced diurnal temperature range over most land areas;
4. increase of heat index over land areas; and
5. more intense precipitation events.

There are also many secondary effects that are projected to result from climate change, including global rise in sea level, reduction in snowpack, impacts on agriculture, changes in disease vectors, and changes in habitat and biodiversity. Although the specific outcomes of climate change are not fully understood, the potential for environmental, social, and economic consequences over the long term is anticipated to be substantial.

Anthropogenic (i.e., human-made) greenhouse gas emissions in the US are derived mostly from the combustion of fossil fuels for transportation and power production. Energy-related carbon dioxide emissions resulting from fossil fuel exploration and use account for close to 90 percent of the human-generated greenhouse gas emissions in the US.

Greenhouse Gases and Global Warming Potential

The principal anthropogenic greenhouse of primary concern is carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Water vapor, the most abundant greenhouse gas, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources. Principal characteristics of these pollutants are discussed below.

Carbon dioxide enters the atmosphere through fossil fuel (e.g., oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., cement manufacturing). Carbon dioxide is also removed from the atmosphere (or sequestered) when plants uptake carbon dioxide for photosynthesis.

Methane is emitted during the production and transport of coal, natural gas, and oil. Livestock, other agricultural practices, and decaying organic waste in landfills also emit methane.

Nitrous oxide is emitted during the combustion of fossil fuels and solid waste and agricultural and industrial activities.

Sulfur hexafluoride is an inorganic, colorless, odorless, nonflammable, potent greenhouse gas, and an excellent electrical insulator.

Methods have been set forth to describe greenhouse gas emissions in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare greenhouse gas emissions is the global warming potential methodology defined in the Intergovernmental Panel on Climate Change reference documents. The Intergovernmental Panel on Climate Change defines the global warming potential of various greenhouse gas emissions on a normalized scale that recasts all greenhouse gas emissions in terms of carbon dioxide, which compares the gas in question with that of the same mass of carbon dioxide; by definition, carbon dioxide has a global warming potential of 1.

3.8.4 Impact Analysis

Methods of Analysis

Project Activity impacts to greenhouse gas emissions were analyzed qualitatively using best professional judgment. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities related to the proposed project. This section describes impacts in terms of location, context, duration, and intensity, and recommends mitigation measures, when necessary, to avoid or minimize impacts. The analysis assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to greenhouse gas emissions would be considered significant if projects permitted under the General Order would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or
2. Conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Impacts and Mitigation Measures

Impact GHG-1: Would projects permitted under the General Order generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less-than-Significant Impact)

Project Activities would generate greenhouse gas emissions from vehicular transportation and equipment operation during short-term construction related to Project Activities. Emissions would vary substantially depending on the level of activity, activity duration, specific operations, types of equipment, and number of personnel working on a given activity.

Project Activities do not include installation of new permanent emission-generating facilities, and any replacement of existing facilities would typically be in-kind with potentially a more efficient model. Accordingly, there would be negligible changes in criteria pollutant or greenhouse gas emissions from Project Activities in comparison to existing conditions. Therefore, Project Activity greenhouse gas impacts would be **less than significant**.

Impact GHG-2: Would projects permitted under the General Order conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less-than-Significant Impact)

The AB 32 Scoping Plan provides framework to reduce California's greenhouse gas emissions and requires California Air Resources Board and other state agencies to adopt regulations and other initiatives to reduce greenhouse gases. AB 32 Scoping Plan identifies several state regulatory measures aimed at the identification and reduction of greenhouse gas emissions and recommends strategies for implementation at the statewide level to meet the goals of AB 32.

Project Activities would improve California's electrical distribution efficiency and resilience. Project Activities would not adversely affect California's ability to supply renewable energy, Utility Service's ability to meet its California's Renewables Portfolio Standard obligations, or the ability of the counties to achieve their respective greenhouse gas reduction goals. Project Activities would be comparable to ongoing activities, and associated emissions would not increase as a result of issuance of the General Order. For these reasons, Project Activities would be consistent with the goals of the AB 32 Scoping Plan.

The 2017 Scoping Plan extends many AB 32 Scoping Plan policies, and Project Activities would not conflict with any of these strategies. The infrastructure upgrades from Project Activities would contribute to long-term improvements to the state's electric systems and enhance climate resiliency and flexibility for adaptive management. Therefore, issuance of the General Order would not conflict with any applicable greenhouse gas management plan, policy, or regulation. Therefore, impacts would be **less than significant**.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		X		
4) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?		X		
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?		X		

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
6) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

3.9.1 Introduction

This section discusses hazards and hazardous materials in the Project Area and evaluates the reasonably foreseeable potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, potential impacts for excessive noise, emergency response plans or emergency evacuation plans, accidental release of hazardous materials and hazardous wastes, and proximity to schools and hazardous materials sites are evaluated.

3.9.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to hazards and hazardous materials in the Project Area.

Federal

Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972, better known as the CWA, established the institutional structure for the USEPA to regulate discharges of pollutants into waters of the US, establish water quality standards, conduct planning studies, and fund grant projects. Congress has amended the CWA several times since 1972.

For a more detailed discussion of the CWA, see Section 3.4, Biological Resources, and Section 3.10, Hydrology and Water Quality.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (42 US Code Chapter 103) and associated Superfund Amendments provide the USEPA with the authority to identify hazardous sites, to require site remediation, and to recover the costs of site remediation from polluters. The Comprehensive Environmental Response, Compensation, and Liability Act also enabled the revision of the National Oil and Hazardous Substances Pollution Contingency Plan, also known as the National Contingency Plan. The plan provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants.

Federal Aviation Administration Regulations

All airports and navigable airspace not administered by the US Department of Defense are under the jurisdiction of the Federal Aviation Administration. Title 14, Part 77 of the Code of Federal Regulations establishes the standards and required notification for objects affecting navigable airspace. In general, construction projects exceeding 200 feet in height, or those extending at a ratio greater than 100 to 1 (horizontal to vertical) from a public or military airport runway more than 3,200 feet long, out to a horizontal distance of 20,000 feet, are considered potential obstructions and require Federal Aviation Administration notification. In addition, construction projects extending at a ratio greater than 50 to 1 (horizontal to vertical) from a military or public airport runway measuring 3,200 feet or less, out to a horizontal distance of 10,000 feet, are considered potential obstructions and require Federal Aviation Administration notification. Title 14, Part 133 of the Code of Federal Regulations also requires an operating plan to be developed in coordination with and approved by the local Federal Aviation Administration Flight Standards District Office that has jurisdiction over when helicopter use would be required.

Occupational Safety and Health Administration Law and Regulations

The federal Occupational Safety and Health Administration mission is to ensure the safety and health of American workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. The Occupational Safety and Health Administration staff establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation projects. Occupational Safety and Health Administration standards are listed in Title 29 Code of Federal Regulations Part 1910.

Resource Conservation and Recovery Act

Under the Resource Conservation and Recovery Act of 1976 (42 US Code Section 6901 et seq.), individual states may implement their own hazardous waste programs in lieu of the Resource Conservation and Recovery Act as long as the state program is at least as stringent as the federal Resource Conservation and Recovery Act requirements. The federal government approved California’s Resource Conservation

and Recovery Act program, called the Hazardous Waste Control Law, in 1992. The act established a program administered by the USEPA for the regulation of hazardous waste generation, transportation, treatment, storage, and disposal. The USEPA implements this law through Title 42, Subtitle C, Section 6921 et seq. of the US Code and its implementing regulations (40 Code of Federal Regulations 260 et seq.).

Solid Waste Disposal Act

The Solid Waste Disposal Act was the first major federal law directed at waste disposal. It recognizes the potentially negative health and environmental consequences associated with certain waste disposal practices. The Solid Waste Disposal Act provides waste management technology, and charges municipalities with responsibility for disposal of solid waste.

Toxic Substances Control Act

The Toxic Substances Control Act was enacted by Congress in 1976 (15 US Code Section 2601 et seq.) and gave the USEPA the authority to protect the public from unreasonable risk of injury to health or the environment by regulating the manufacture, sale, and use of chemicals currently produced or imported into the US The Toxic Substances Control Act, however, does not address wastes produced as byproducts of manufacturing. The types of chemicals regulated by the act fall into two categories: existing and new. New chemicals are defined as “any chemical substance which is not included in the chemical substance list compiled and published under Toxic Substances Control Act Section 8(b).” This list included all of the chemical substances manufactured or imported into the US prior to December 1979, such as polychlorinated biphenyls, which were historically used in electrical equipment. Existing chemicals include any chemical listed under Section 8(b). The distinction between existing and new chemicals is necessary because the act regulates each category of chemicals in different ways. The USEPA repeatedly screens both new and existing chemicals and can require reporting or testing of those that may pose an environmental or human-health hazard. The USEPA can ban the manufacture and import of those chemicals that pose an unreasonable risk.

State

California Health and Safety Code Chapter 6.95 Hazardous Materials Release Response Plans and Inventory

Utility Services storing hazardous materials that meet or exceed the state thresholds (i.e., 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for gasses) are required to prepare a Hazardous Materials Management Plan pursuant to Chapter 6.95 of the California Health and Safety Code. The Hazardous Materials Management Plan would provide a list of management practices and activities designed to minimize the effects of inadvertent releases of hazardous materials and ensure the proper handling, storage, and disposal of hazardous and nonhazardous waste during Project Activities. The types of measures and procedures that would be outlined in the Hazardous Materials Management Plans include training requirements for personnel, storage

requirements for hazardous materials, including the use of proper containers, maintenance of hazardous material spill kits at active work sites, and notification procedures in the event of an accidental release. Utility Services are required to file any applicable Hazardous Materials Management Plans with the Office of the State Fire Marshal consistent with that office's role as the certified unified program agency.

California Occupational Safety and Health Act

The California Occupational Safety and Health Act of 1970 provides measures that address the safety of construction and industrial workers; Title 8 of the California Code of Regulations identifies the majority of these measures. The California Division of Occupational Safety and Health assumes primary responsibility for developing and enforcing workplace safety regulations within the state. California Division of Occupational Safety and Health standards are more stringent than federal Occupational Safety and Health Administration regulations and take precedence.

California Office of Emergency Services

The California Office of Emergency Services is the state office responsible for establishing emergency response and spill notification plans related to hazardous materials accidents.

California Public Resources Code

Public Resources Code Sections 4290 to 4293 identify construction and operation and maintenance requirements to minimize fire hazards for structures located in State Responsibility Areas, as follows:

a) Section 4290 was adopted to establish minimum wildfire protection standards in conjunction with building, construction, and development of all residential, commercial, and industrial buildings in State Responsibility Areas. Under Section 4290, all residential, commercial, and industrial building construction within State Responsibility Areas must provide for basic emergency access and perimeter wildfire protection measures, as specified in the code. Local standards that exceed those of Section 4290 supersede Section 4290.
b) Section 4291 addresses requirements for maintaining defensible space around buildings in State Responsibility Areas.
c) Section 4292 addresses power line hazard reduction. It identifies the requirements for firebreaks around "any pole or tower which supports a switch, fuse, transformer, lightning arrester, line junction, or dead end or corner pole" in wildland areas.
d) Section 4293 provides specific clearances for power lines in wildland areas.

California Public Utilities Commission Code, Laws, and Rules

Regarding electric line oversight, the CPUC regulates all aspects of design, construction, and operation and maintenance of electrical power lines subject to CPUC jurisdiction under General Order 95. On February 5, 2014, the CPUC adopted its Decision Adopting Regulations to Reduce the Fire Hazards Associated with Overhead Electric Utility Facilities and Aerial Communications Facilities (Decision 14-02-015). In

addition to updating various General Order 95 requirements and ordering further study, the decision called for the CPUC to create a High Fire-Threat District Map that identifies zones of high hazard, elevated risk, and extreme risk for destructive utility-associated wildfires. These rules are supplements to the federal regulations and do not supersede federal pipeline safety regulations.

Regarding fire safety, the CPUC issued new fire safety regulations in December 2017 (CPUC 2017). The regulations apply to the High Fire-Threat District that consists of the following three areas: Zone 1 High Hazard Zones on the US Forest Service-California Department of Forestry and Fire Protection (CAL FIRE) joint map of Tree Mortality High Hazard Zones; Tier 2 of the CPUC Fire-Threat Map, where there is an elevated risk for utility-associated wildfires; and Tier 3 of the CPUC Fire-Threat Map, where there is an extreme risk for utility associated wildfires.

The fire-safety regulations require electric utilities to implement the following measures:

a) prioritize correction of safety hazards based, in part, on whether the safety hazard is located in the High Fire-Threat District;
b) correct non-immediate fire risks in Tier 2 of the High Fire-Threat District within 12 months, and in Tier 3 within 6 months;
c) maintain increased clearances between vegetation and power lines throughout the High Fire-Threat District;
d) maintain more stringent wire-to-wire clearances for new and reconstructed facilities in Tier 3;
e) conduct annual patrol inspections of their overhead distribution facilities in rural areas of Tier 2 and Tier 3; and
f) prepare a fire-prevention plan annually if they have overhead facilities in the High Fire-Threat District.

Hazardous Substance Account Act

The Hazardous Substance Account Act (California Health and Safety Code Chapter 6.8 Section 25300 et seq.) is California's equivalent to Comprehensive Environmental Response, Compensation, and Liability Act. It addresses hazardous waste sites and apportions liability for them. The Hazardous Substance Account Act also provides that owners are responsible for the cleanup of such sites and the removal of toxic substances, where possible.

The two state agencies with primary responsibility for enforcing federal and state regulations related to hazardous material transport, and responding to hazardous materials transportation emergencies, are the California Highway Patrol and Caltrans, respectively.

Hazardous Waste Control Law

The Hazardous Waste Control Law (California Health and Safety Code Chapter 6.5 Section 25100 et seq.) authorizes the California Environmental Protection Agency and the California Department of Toxic Substances Control, a department within the agency,

to regulate the generation, transportation, treatment, storage, and disposal of hazardous wastes. The California Department of Toxic Substances Control can also delegate enforcement responsibilities to local jurisdictions that enter into agreements with the California Department of Toxic Substances Control for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) established the State Water Board and the Regional Water Boards as the principal state agencies with primary responsibility for the coordination and control of water quality (Water Code Section 13001), including the enforcement of applicable laws and regulations. In addition to overseeing the efforts of the Regional Water Boards, the State Water Board is responsible for allocating surface water rights.

For a more detailed discussion of the Porter-Cologne Water Quality Control Act, see Section 3.4, Biological Resources, and Section 3.10, Hydrology and Water Quality.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Code of Regulations Title 27) was mandated by the State of California in 1993. The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program was created to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following six environmental programs:

1. Hazardous Waste Generators and Hazardous Waste On-Site Treatment Programs,
2. Underground Storage Tank Program,
3. Aboveground Petroleum Storage Act Program,
4. Hazardous Materials Release Response Plans and Inventories,
5. California Accidental Release Prevention Program, and
6. Uniform Fire Code Hazardous Materials Management Plans and Hazardous Materials Inventory Statements.

At the local level, this is accomplished by identifying a Certified Unified Program Agency that coordinates all of these activities to streamline the process for local businesses. Certified Unified Program Agencies have statutory authority to require permits, inspect facilities, issue violations, and perform enforcement actions, including the authority to photograph any hazardous material or hazardous waste, container, container label, vehicle, waste treatment process, waste disposal site, or condition constituting a violation of law found during an inspection.

Hazardous Materials Management Plans must comply with Health and Safety Code, Chapter 6.95, Sections 25500 through 25545, and the California Fire Code (Section 5001.5.1) and include:

1. access to each storage and use area;
2. location of emergency equipment;
3. location where liaisons would meet emergency responders;
4. facility evacuation meeting point locations;
5. the general purpose of other areas within the building;
6. location of all above-ground and underground tanks and their appurtenances including, but not limited to, sumps, vaults, below-grade treatment systems and piping;
7. the hazard classes in each area;
8. locations of all control areas and Group H occupancies; and
9. emergency exits.

Local

General Plans

California law requires counties and cities to develop comprehensive, long-term general plans to guide their land use decision making and physical development. Of the seven required elements, or chapters, in a general plan, the safety element is most applicable to hazards and hazardous materials. The safety element establishes policies and programs to protect the community from risks associated with seismic, geologic, flood, and wildfire hazards, as well as from other concerns such as drought. Some other general plan elements, including the conservation and open space element, may include policies regarding flood hazards, fire hazards, and other potentially hazardous conditions.

3.9.3 Environmental Setting

California supports a diversity of land uses and numerous transportation corridors that contain various potential hazards that pose risks to human health and safety. Some of these hazards are natural (such as wildfire, steep slopes, and seismic hazards), while others are a result of human activities (such as hazardous material sites, pesticide use in agricultural areas, and urban areas in high fire hazard areas). Contaminants associated with the various uses in the Project Area include a variety of fuels and other petroleum distillates; pesticides, fertilizers, and other agricultural chemicals; lead; radioactivity; and volatile and semi-volatile organic chemicals.

Contaminated Sites

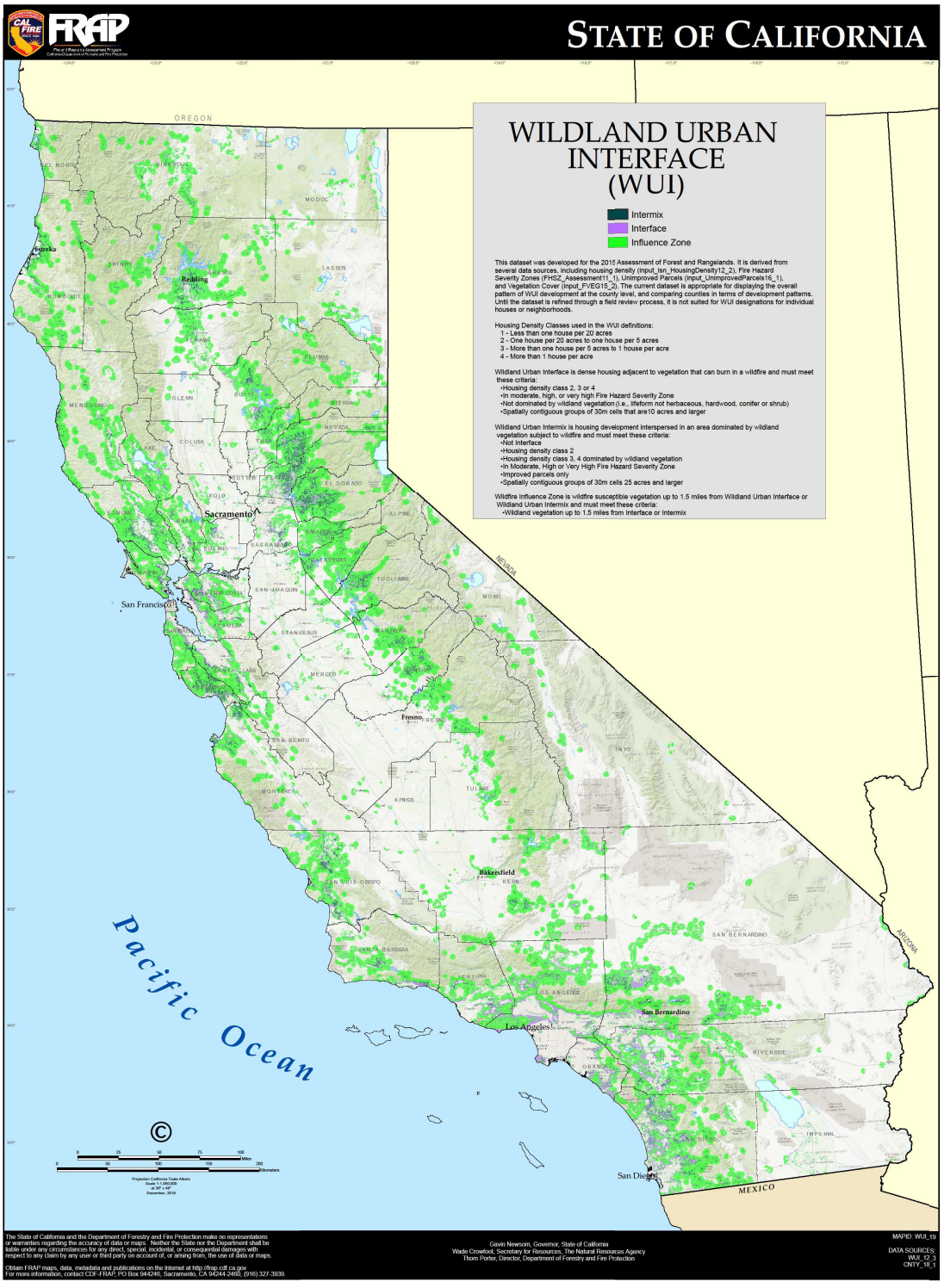
The USEPA and California Department of Toxic Substances Control maintain lists of contaminated sites, and both agencies are responsible for monitoring cleanup efforts and ensuring the sites do not pose substantial hazards to the environment or people. Numerous contaminated sites, including over 100 USEPA identified Superfund sites

placed on the National Priorities List for cleanup, have been recorded in California; the sites are in various stages of being cleaned up. Additionally, there are many known hazardous waste and substance sites in the Project Area that qualify for inclusion in the state's database of contaminated sites or the federal national priority list.

Fire Hazards

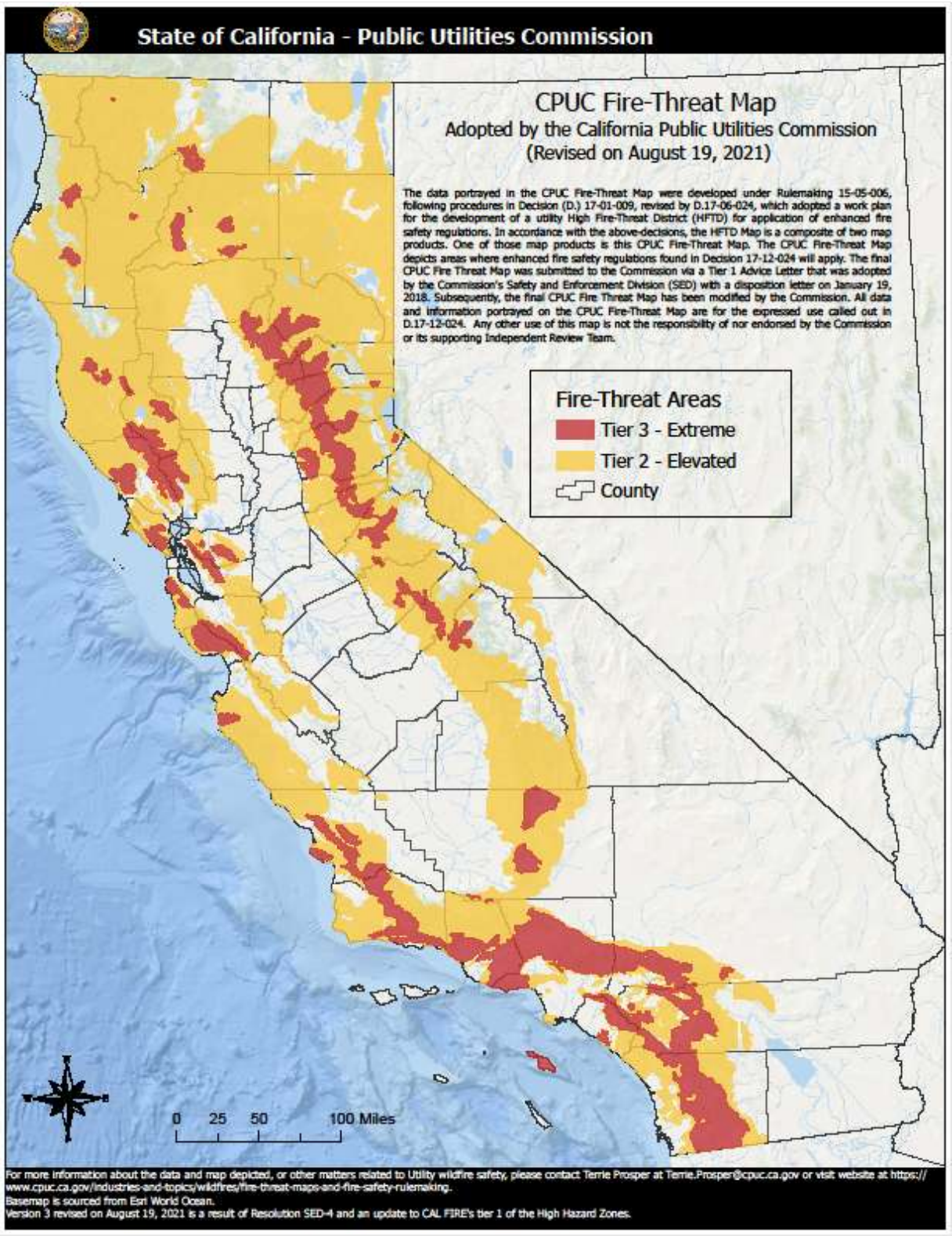
California contains a mixture of urban areas and open space; wildland urban interface are the locations adjacent to open space. Wildfire can threaten communities and buildings in this interface. The CPUC maps fire hazard severity and identifies wildfire threat areas. The extent of wildland urban interface and wildfire threat areas in California is depicted on Figure 3.9-1 Wildlife Urban Interface. Figure 3.9-2 shows counties' high fire threat areas.

Figure 3.9-1: Wildland Urban Interface



Source: California Department of Forestry and Fire 2019

Figure 3.9-2: Fire Threat Areas by County



Source: California Public Utilities Commission 2021

Emergency Response and Evacuation Plans
Many counties and cities have some sort of approved emergency response and evacuation plan. On October 1, 2017, Governor Edmund G. Brown Jr. promulgated the 2017 edition of the State of California Emergency Plan. The plan provides an all-hazards framework for collaboration among responsible entities and coordination during emergencies in the state of California. The plan defines procedures for coordination, collaboration, decision making, and resource sharing among emergency response agencies.

There are four current catastrophic earthquake plans within the state that have been developed by the California Governor's Office of Emergency Services and the Federal Emergency Management Agency.

The current catastrophic earthquake plans developed within the state are:

a) California Catastrophic Incident Base Plan: Concept of Operations,
b) Bay Area Earthquake Plan,
c) Southern California Catastrophic Earthquake Response Plan, and
d) California Cascadia Subduction Zone Earthquake and Tsunami Response Plan.

Schools
There are approximately 977 school districts in the State of California, and they all utilize electrical infrastructure. As a result, there are hundreds of schools within a 0.25 mile of Utility infrastructure that may be subject to Project Activities authorized by the General Order.

Airports
In California, there are roughly 900 airports, around 600 are private and 200 are for public. The state is served by 11 major international airports. Each of these airports provides national and international mobility for people and freight. The state is also served by smaller airports with limited commercial service. As a result, there is likely to be Utility infrastructure within an area subject to an airport land use plan or within 2 miles of a public or public use airport that may be subject to Project Activities authorized by the General Order.

3.9.4 Impact Analysis

Methods for Analysis
Project Activity impacts from the use of hazards and hazardous materials were qualitatively assessed based on best professional judgment. The analysis evaluates how Project Activities could increase the potential risk of personal injury, loss of life, and damage to property in or near the Project Area due to the presence or use of hazardous materials or the creation of hazardous conditions. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities that could be authorized by the

General Order. This section recommends mitigation measures, when necessary, to avoid or minimize impacts. The analysis assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts from hazards and hazardous materials would be considered significant if the projects permitted under the General Order would:

1. Create a hazard to public health or the environment by the routine transport, use, or disposal of hazardous materials;
2. Create a hazard to the public or the environment by reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
4. Be located at a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, creates a hazard to the public or the environment;
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
6. Impair implementation of, or physically interferes with, an adopted emergency response or evacuation plan; or
7. Expose people or structures, either directly or indirectly, to a risk of loss, injury, or death related to wildland fires.

Impacts and Mitigation Measures

For impacts 1 through 4, the following General Order requirement will avoid or minimize impacts to Hazards and Hazardous Materials:

- **Construction Best Management Practices** – requires implementation of appropriate BMPs to prevent construction activity impacts on natural resources, including structural controls to prevent and reduce the discharge of pollutants from runoff, spillage or leaks, and waste disposal. Best management practices also include non-structural controls such as scheduling construction to avoid special status species impacts and preserving existing vegetation.

In addition, in some instances, other State or Regional Water Board permits may be required for Project Activities. For example, the Construction General Permit establishes erosion and sediment control standards for activities that disturb over an acre of soil. Collectively, these requirements will avoid and minimize impacts to Hazards and Hazardous Materials from Project Activities.

Impact HAZ-1: Would projects permitted under the General Order create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Less-than-Significant with Mitigation)

Project Activities require use of hazardous substances, such as fuels and lubricants for vehicles and equipment, paints, solvents, and epoxies. In the post-fire environment, utilities may need to transport toxic materials, such as burned equipment or contaminated soil and it is possible that this transportation could create a hazard. Therefore, Project Activities could create a significant hazard to the public or environment as a result of the transport, use, or disposal of hazardous materials.

Mitigation

Implementation of Mitigation Measure HAZ-1 below would require workers to conduct Project Activities in compliance with all applicable state and federal laws, regulations, and requirements for handling, storage, and transportation of hazardous materials and hazardous wastes.

> **Mitigation Measure HAZ-1: Compliance with Applicable Laws, Regulations, and Ordinances**
>
> Utility Services would be required to comply with applicable state, federal, and local laws, regulations, and requirements pertaining to hazardous materials and hazardous wastes. Relevant regulations include the Toxic Substances Control Act, CWA, Solid Waste Disposal Act, Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act. In addition, Utility Services storing hazardous materials that meet or exceed the state thresholds (i.e., 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for gasses) are required to prepare a Hazardous Materials Management Plan; the plan would detail BMPs to minimize the effects to incidental releases, and ensure proper handling, storage, and disposal of hazardous and nonhazardous waste. These regulations establish legal requirements for hazardous materials storage, transportation and handling, and agency oversight.

In addition to Mitigation Measure HAZ-1 described above, the General Order requirements address structural and non-structural controls to prevent and reduce discharges of hazardous waste.

Significance After Mitigation

The implementation of General Order requirements and Mitigation Measure HAZ-1 will reduce impacts to a less than significant level. Therefore, Project Activity impacts to the public or environment resulting from the transport, use, or disposal of hazardous materials would be **less-than-significant with mitigation.**

Impact HAZ-2: Would projects permitted under the General Order create significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Less-Than-Significant with Mitigation)

Project Activities could accidentally release hazardous materials and waste. For example, spills could occur during fueling or servicing equipment, or during delivery of fuels and other substances to work sites. Spills have the potential to contaminate soil, surface water, and/or groundwater, potentially resulting in toxic effects on vegetation, wildlife, workers, and the general public. Substances such as solvents, paints, and epoxies could pose similar concerns if accidentally released or improperly handled or disposed. Therefore, Project Activities could result in a significant impact to the public or environment from an accidental release of hazardous materials and hazardous wastes.

Mitigation
Implementation of Mitigation Measure HAZ-1 would require the Utility Services to conduct Project Activities in compliance with all applicable state and federal laws, regulations, and requirements for handling, storage, and transportation of hazardous materials and hazardous wastes. In addition, the General Order requirements address structural and non-structural controls to prevent and reduce discharges of hazardous waste.

Significance After Mitigation
Therefore, Project Activities impacts associated with the accidental release of hazardous materials and hazardous wastes would be **less-than-significant with mitigation**.

Impact HAZ-3: Would projects permitted under the General Order emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Less-than-Significant with Mitigation)

Utility Service facilities are located throughout the Project Area and include infrastructure that directly serves schools and their surrounding communities. Thus, Project Activities requiring the use of hazardous materials and hazardous wastes could take place within 0.25 mile of existing or proposed schools. As described above in Impact HAZ-2, the transportation, storage, and handling of hazardous materials and hazardous wastes could result in accidental leakage of these materials. Therefore, Project Activities could have a significant impact.

Mitigation
As described above in Impact HAZ-2, implementation of Mitigation Measure HAZ-1 would require Utility Services to remain in compliance with the current federal, state, and local laws and regulations for the use and storage of hazardous materials and hazardous wastes. In addition, the General Order requirements address structural and

non-structural controls to prevent and reduce impacts from discharges of hazardous waste.

Significance After Mitigation
Therefore, Project Activities impacts associated with hazardous materials and hazardous wastes near existing or proposed schools would be **less than significant-with-mitigation.**

Impact HAZ-4: Would projects permitted under the General Order be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or the environment? (Less-than-Significant with Mitigation)

Given the General Order applies to Utility Service electrical infrastructure throughout the state, Project Activities could occur on or in the vicinity of contaminated sites. Subsurface contaminants associated with nearby hazardous sites could potentially be encountered during ground disturbing activities. Utility Services would minimize the potential for encountering subsurface contaminants through the identification of these sites prior to conducting Project Activities. As described above in Impact HAZ-2, the transportation, storage, and handling of hazardous materials and hazardous wastes could result in accidental leakage of these materials on or in the vicinity of contaminated sites. Therefore, Project Activities could create a significant hazard to the public or environment on a hazardous site.

Mitigation
Implementation of Mitigation Measure HAZ-1 would require Utility Services to remain in compliance with the current federal, state, and local laws and regulations for the use and storage of hazardous materials and hazardous wastes. In addition, the General Order requirements address structural and non-structural controls to prevent and reduce impacts from discharges of hazardous waste.

Significance After Mitigation
Therefore, Project Activities conducted on or near hazardous materials sites compiled pursuant to Government Code Section 65962.5 would have a **less-than-significant impact with mitigation**.

Impact HAZ-5: For a project permitted under the General Order located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the Project Area? (Less-than-Significant with Mitigation)

Project Activities could be implemented within an area covered under an adopted airport land use plan. Depending on the proximity of Project Activities to an existing airport, there is potential for construction workers to be exposed to noise from airport operations. However, the dominant noise source for personnel working on Project

Activities near airports would be their own equipment and not aircraft in the vicinity. Therefore, Project Activities could result in a safety hazard or excess noise for people within an airport land use plan or within two miles of a public or public use airport.

Mitigation
Implementation of Mitigation Measure NOI-1 below would ensure Project Activities adhere to noise standards.

> **Mitigation Measure NOI-01: Adherence to Noise Standards and Policies per the Applicable General Plan, Noise Ordinances, or Other Agency Regulations**
> Noise-generating Project Activities would follow the applicable general plan, noise ordinances, and other agency or agencies regulations for the jurisdiction located within the vicinity of the project.

Significance After Mitigation
Therefore, impacts within an airport land use plan or within two miles of a public or public use airport would be **less-than-significant with mitigation**.

Impact HAZ-6: Would projects permitted under the General Order impair implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan? (Less-than-Significant Impact)

Project Activities are conducted in compliance with emergency response and evacuation plans adopted in the surrounding project area. As described in Section 3.17 Transportation, it is anticipated Utility Services would continue to coordinate with state and local agencies to obtain any necessary permits (e.g., Encroachment Permit and associated Traffic Control Plan) and conduct Project Activities in compliance with the permit conditions. If Project Activities require lane closures of public roadways, Utility Services would implement the required conditions to ensure access for emergency services and passage in the case of a mandatory evacuation. Therefore, Project Activities would have a **less-than-significant impact** to adopted emergency response plans or emergency evacuation plans.

Impact HAZ-7: Would projects permitted under the General Order expose people or structures, either directly or indirectly, to a significant risk involving wildland fires? (No Impact)

Project Activities are generally being performed to reduce the risk of wildfire or replace equipment. Project Activities will not expose people or structures to an increased risk involving wildland fires. Therefore, **no impacts** have been identified for this category.

3.10 HYDROLOGY AND WATER QUALITY

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			X	
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
3) Substantially alter the existing drainage pattern of the 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 which would:	-	-	-	-
i) result in substantial erosion or siltation on- or off-site;			X	
ii) substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or off-site;			X	

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
iv) impede or redirect flood flows?			X	
4) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

3.10.1 Introduction

This section describes hydrologic resources in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, potential impacts include violations of water quality standards, decreasing groundwater supplies, altering existing drainage patterns of a site or area, and projects located in flood, hazard, tsunami, or seiche zones.

3.10.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to hydrology and water quality in the Project Area.

Federal

Clean Water Act

The CWA (33 US Code Sections 1251 et seq.), formally known as the Federal Water Pollution Control Act, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of waters of the US. On August 29, 2023, the USEPA and the Department of Army issued a final rule to amend the final "Revised Definition of 'Waters of the United States'" rule, published in the Federal Register on January 18, 2023. This final rule conforms the definition of "waters of the United States" to the US Supreme Court's May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency*. The current definition of waters of the United States. can be found on the following webpage (https://www.ecfr.gov/current/title-33/chapter-II/part-328).

The term "wetlands" is defined by Title 33, Section 328.3(b) of the Code of Federal Regulations as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

Under the CWA, dischargers have responsibilities that include preventing water pollution, obtaining discharge permits, meeting applicable water quality standards, developing risk management plans, and maintaining records. The CWA also requires states to set standards to protect, maintain, and restore water quality through the regulation of point sources and certain nonpoint source discharges to surface water. Most states (including California) have been delegated the authority to implement the CWA.

Clean Water Act Sections 303 and 304 – Water Quality Standards and Impaired Waters

Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the US. (33 US Code Section 1313). Section 304(a) requires the USEPA to publish water quality criteria that accurately reflect the latest scientific knowledge on the kind of effects and extent of effects that pollutants in water may have on health and welfare (33 US Code Section 1314[a]). Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, though narrative criteria based on biomonitoring methods may be employed when numerical standards cannot be established or when they are needed to supplement numerical standards.

Section 303(c)(2)(b) of the CWA requires states to adopt numerical water quality standards for toxic pollutants for which the USEPA has published water quality criteria, and which could reasonably be expected to interfere with designated uses in a water body. Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop a list of water bodies where beneficial uses are impaired. The

waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for water segments on the lists and develop action plans (i.e., total maximum daily load plans) to improve water quality.

Clean Water Act Section 401 – Water Quality Certification

Under Section 401 (33 US Code Section 1341 of the CWA), any applicant for a federal license or permit to conduct any activity that may result in any discharge into waters of the US. must obtain a WQC to certify that the proposed activity would comply with state water quality standards. Generally, WQCs in California are issued by the Regional Water Board in which the discharge takes place. However, for projects that span multiple Regional Water Board Districts or involve FERC licensing or water diversions, the State Water Board issues the WQC.

Clean Water Act Section 402 – National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) program was established in 1972 to control discharges of pollutants from defined point sources (33 US Code Section 1342). The NPDES program can be delegated to the states. The Water Boards are authorized to issue NPDES permits in California. Coverage by an NPDES permit may be required depending on the nature of the Project Activities.

Clean Water Act Section 404 - Dredge/Fill Permitting

Section 404 of the CWA prohibits the discharge of dredge or fill material into waters of the US without a permit from the US Army Corps of Engineers.

Coastal Zone Management Act

The CZMA of 1972 encourages local government to preserve, protect, develop, and, where possible, restore or enhance the resources of the US's Coastal Zone. The CZMA encourages and helps states effectively exercise their responsibilities in the Coastal Zone through the development and implementation of management programs. California's coastal management program, discussed in the California Coastal Act section, was approved by the National Oceanic and Atmospheric Administration in 1978. The Project Area located along the coast and inland areas near the coast are covered by the CZMA. Additionally, the CZMA requires that federal actions, within and outside the Coastal Zone, which have reasonably foreseeable effects on coastal land or water use or natural resource of the Coastal Zone be consistent with the enforceable policies of a state's federally approved coastal management program. Federal actions include federal agency activities, federal license or permit activities, and federal financial assistance activities. The Federal Consistency Unit of the CCC implements the federal consistency provisions of the CZMA.

National Flood Insurance Program

The Federal Emergency Management Agency is responsible for determining flood elevations and floodplain boundaries based on US Army Corps of Engineers studies. The Federal Emergency Management Agency is also responsible for distributing the Flood Insurance Rate Maps used in the National Flood Insurance Program (42 US Code Chapter 50). A Flood Insurance Rate Map is an official Federal Emergency Management Agency-prepared map of a community. These maps identify the locations of special flood hazard areas, and the flood-risk premium zones (100-year floodplains) that are applicable to the community. Although Federal Emergency Management Agency allows nonresidential development in the floodplain, the agency has criteria to "constrict the development of land which is exposed to flood damage where appropriate" and "guide the development of proposed construction away from locations which are threatened by flood hazards." In response to the increasing cost of disaster relief, Congress passed the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The Federal Emergency Management Agency administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with Federal Emergency Management Agency regulations to limit development in floodplains. Federal regulations governing development in a floodplain are set forth in Title 44, Part 60 of the Code of Federal Regulations, enabling Federal Emergency Management Agency to require municipalities that participate in the National Flood Insurance Program to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains.

Rivers and Harbors Appropriation Act of 1899 – Section 10

Section 10 of the Rivers and Harbors Appropriation Act of 1899 (33 US Code Sections 401 et seq.) makes it unlawful to obstruct or alter a navigable river or other navigable water of the US. Construction, excavation, or deposition of materials in, over, or under such waters or any work that would affect the course, location, condition, or capacity of those waters requires a Section 10 permit and approval from US Army Corps of Engineers.

State

California Coastal Act

The CCA, enacted in 1976, governs decisions of the CCC in review and issuance of coastal development permits. The CCA is the foundation of the California Coastal Management Program. The act defines the state's coastal management goals and policies, establishes the boundaries of the state's coastal zone, and creates governmental mechanisms for carrying out the management program. The CCC, or a city or county with delegated authority through a CCC -certified Local Coastal Program, has jurisdiction over development in the Coastal Zone; development includes a variety of activities, including construction, reconstruction, demolition, or alteration of any structure, including any facility of a private, public, or municipal utility and including

roads, pipelines, and power lines. Development also includes removal of major vegetation. Development in the Coastal Zone requires a Coastal Development Permit from the CCC and/or the delegated authority of a Local Coastal Program. The Coastal Zone varies from several hundred feet inland of the mean high tide line to 5 miles inland (California Coastal Commission 2022).

California Fish and Game Code Sections 1600 through 1616

Sections 1600 through 1616 of the California Fish and Game Code require that a notification must be submitted to the CDFW for "any activity that may substantially divert or obstruct the natural flow of, or substantially change or use materials from the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the notification package and, if necessary, submits to the applicant a Draft Lake or Streambed Alteration Agreement that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFW and the applicant is a Lake or Streambed Alteration Agreement.

California Fish and Game Code Section 5650

Section 5650 of the California Fish and Game Code makes it illegal to discharge any substance that may impact fish, plants, or bird life into waters of the state, unless authorized by the Regional Water Board WDRs or a federal permit for which a WQC is issued.

Clean Water Act

The following subsections describe the responsibilities of the state in the implementation of the CWA. The CWA is described previously in the Federal section.

Clean Water Act Section 401

Under Section 401, any applicant for a federal license or permit to conduct any activity that may result in any discharge into waters of the US must provide the licensing or permitting agency with a WQC confirming that the discharge would comply with the applicable CWA provisions (33 US Code Section 1341). If a project requires a federal permit, the applicant must also obtain a WQC from the appropriate Water Board.

Clean Water Act Section 402

As discussed in the Federal section, the National Pollutant Discharge Elimination System program was established to control discharges of pollutants from defined point sources (33 US Code Section 1342). In California, the State Water Board and the Regional Water Board are authorized to issue National Pollutant Discharge Elimination System permits including:

- Construction Stormwater General Permit (2022-0057-DWQ) for projects disturbing 1 acre or more of land, or that are part of a common plan of development or sale that disturbs more than 1 acre of land.
- Order WQ 2014-0174-DWQ (Utility Vaults) for short-term intermittent discharges of pollutants to surface waters from utility vaults and underground structures.

Cobey-Alquist Floodplain Management Act

The Cobey-Alquist Floodplain Management Act (Water Code Sections 8400-8415) and Executive Order B-39-77 support the National Flood Insurance Program. The act encourages local governments to plan, adopt, and enforce land use regulations for floodplain management. The act also identifies requirements that jurisdictions must meet in order to receive state financial assistance for flood control. Porter-Cologne Water Quality Control Act (California Water Code, Division 7)

The Porter-Cologne Water Quality Control Act of 1967 (California Water Code Section 13000 et seq.) requires the Water Boards to adopt water quality criteria to protect waters of the state. These criteria include the identification of beneficial uses, narrative and numerical water quality objectives, and implementation procedures. The Regional Water Boards prepare and periodically update water quality control plans (basin plans), which provide the technical basis for determining WDRs, taking enforcement actions, and evaluating clean water grant proposals. A basin plan must include a statement of beneficial water uses that the Regional Water Boards would protect, the water quality objectives needed to protect the designated beneficial water uses, and strategies to be implemented, with time schedules for achieving the water quality objectives.

Projects that would discharge waste to waters of the state must file a report of waste discharge with the appropriate Regional Water Board if the discharge could affect the quality of waters of the state (Water Code Section 13260). The Regional Water Board would issue a WDR or a waiver of the WDR for the project. The requirement would implement any relevant basin plans that have been adopted and must take into consideration the beneficial uses to be protected and the water quality objectives that are reasonably required for that purpose (Water Code Section 13263).

In 2019 the State Water Board adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures). The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a wetland feature is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review, and approval of applications for WQCs and WDRs for dredge or fill activities.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (Water Code Sections 10720-19737.8), enacted in 2014, establishes overdraft protections and extraction regulations for California’s groundwater resources. The Sustainable Groundwater Management Act outlines groundwater basin boundaries and identifies critical, high, or medium priority groundwater basins. The act established groundwater sustainability agencies to develop groundwater sustainability plans for each of the groundwater basins identified as critical, high, or medium priority. Groundwater resources in California are required to reach a level of sustainability by 2042.

Local

The following discussion of local plans and policies is provided for information purposes and to assist with CEQA review.

General Plans and Ordinances

Government Code Section 65302, as amended (2007 California Statute 369) requires that on or after January 1, 2009, the updated safety elements of general plans must incorporate significantly enhanced geographic data, goals, and policies related to flood hazards. This enhanced assessment of flood hazards includes flood mapping information from multiple agencies, including Federal Emergency Management Agency, the US Army Corps of Engineers, the California Office of Emergency Services, California Department of Water Resources, and applicable regional dam, levee, or flood protection agencies; historical data on flooding; an inventory of existing and planned development (including transportation infrastructure) in flood zones; and new policies that comprehensively address existing and future flood risk in the planning area.

City and county municipal codes contain ordinances, policies, and permits administered by the respective city or county agency related to grading and construction that may directly or indirectly affect surface water quality.

3.10.3 Environmental Setting

Climate and Precipitation

There are five major climate types within California: Desert, Cool Interior, Highland, Steppe, and Mediterranean. These climates are influenced by topography, aspect, temperature, precipitation, latitude, and wind patterns. The Mojave Region, a Desert climate, is characterized by sweeping valleys and rugged, high elevation mountain ranges; in general, upper elevations catch more rain and snow, and are much cooler than the valleys below. California's higher elevations, the Modoc and Sierra regions, generally have two major climate types: a Cool Interior and Highland; in these areas, the conditions that determine most other climates (latitude, prevailing winds, and temperature) are strongly modified by elevation, slope, and aspect. South facing slopes catch more of sun's rays and heat, making them warmer and drier, while shaded north facing slopes are cooler and wetter. West facing slopes tend to catch more precipitation from storms moving inland from the Pacific Ocean. California's Steppe climate of the San Joaquin Valley Region is hot like a desert but averages enough moisture to support grasslands and other vegetation not commonly found in the desert. In California, the Mediterranean climate has three variations. One is the cool summer/cool winter climate found along the coast and the western slope of the Sierra Nevada. A second variation, also along the coast is similar but has frequent summer fog. The third is an interior valley version with hotter summers and cooler winters. In California's climate types, most of the precipitation falls in winter instead of summer, which is in contrast to most of the world.

Hydrology

Surface Water

Surface waters of California are located in six regions, each with similar hydrologic characteristics including distinct precipitation, runoff, and geology conditions (California Department of Water Resources, 1994). Table 3.10-1 shows seasonal patterns, precipitation, and runoff characteristics of the six regions. These surface water resources are diverse and varied, ranging from large and long-reaching perennial rivers in the north and central areas of the state, to primarily intermittent waterways along much of the southern coast, to desert washes and dry lakes in the inland east and south. Major waterways include the Trinity River system which drains the northern reaches of California's Coastal Range and the southern Cascades; the Sacramento-San Joaquin River system, the state's largest river system, which drains the southern tip of the Cascade Range, the western Sierra Nevada, the eastern Coastal Range, and the Central Valley; and the Colorado River, which flows along California's eastern border and into Mexico. There are many smaller perennial and intermittent waterways that drain California's seaboard and the eastern slope of the Sierras.

Northern portions of the state generally receive substantially more precipitation than southern portions of the state. Snowpack in the Sierra Nevada and southern Cascades serves as a significant reservoir for water storage. Snowpack accumulates over the winter and early spring months, and gradually melts in late spring and summer, feeding surface flows, filling reservoirs, and recharging groundwater. Captured snowmelt, especially east and north of the Central Valley, is highly managed, and is released from reservoirs to supply regional agriculture and urban needs, and to provide water for export to other areas of the state.

Water from the Sacramento-San Joaquin Delta is pumped from the Clifton Court Forebay into a network of aqueducts and reservoirs that supply water to Central and Southern California for agricultural and urban uses. Other state, federal, and local water projects provide water to specific cities or areas. Such projects include diversions from the Sierra Nevada to the San Francisco Bay Area, from the Owens Valley to Los Angeles, and from the Colorado River to the Imperial Valley and San Diego. Other water projects provide surface water supply to Santa Barbara, Blythe, San Luis Obispo, the northern San Francisco Bay Area, Vacaville, and other urban areas.

In recent decades, California's natural and engineered water systems have come under increasing demand pressure, in an attempt to meet urban, agricultural, industrial, and environmental water requirements. During dry years, it is almost impossible to meet the needs of all water users, and recent droughts have resulted in reductions in water supplies for urban, environmental, and agricultural uses.

Table 3.10-1 Watershed Characteristics of California

Region	Seasonal Patterns	Runoff Characteristics	Precipitation[1]
North Coast (Region 1)	Inland: distinct rainy cool winters and hot dry summers; Coastal: cool and wet year-round with little temperature variation	Highest peak discharges recorded in the state, highest total sediment yields	Dominated by rainfall. Average rainfall between 26.1-10.1-million-acre feet
Sacramento, San Joaquin, and Tulare Lake (Region 5)	Valley: hot dry summers and cool wet winters; Mountains: mild summers with intermittent thunderstorms, heavy winter snowfall above 5,000 feet	Prolonged spring runoff fed by Sierra Nevada snowpack, low sediment yields due to widespread vegetation and stable rock types/soils, locally high sediment yields due to land uses (e.g., logging, grazing, and urbanization)	Valleys receive winter rainfall, and mountains receive moderate to heavy snowfall, total average annual precipitation ranges from 25.6-17.9 million-acre-feet in the Sacramento River region to 14.1-11.2 million-acre-feet for the San Joaquin and Tulare Lake regions
San Francisco Bay and Central Coast (Regions 2 and 3)	Coast: cool and foggy year-round with rain in the winter, small seasonal temperature variations; Inland areas: warmer dry summers with cooler rainy winters	High peak runoffs due small, steep watersheds; local rivers susceptible to severe flooding during high rainfall events; some watersheds produce high sediment yields due to unstable rock types/soils	Precipitation from rainfall, average annual precipitation is 1.4-1.5 million-acre-feet

Region	Seasonal Patterns	Runoff Characteristics	Precipitation[1]
North and South Lahontan (Region 6)	Valleys: semi-arid high desert terrain, hot dry summers, locally intense thunderstorms, mild dry winters; Mountains: cool to mild summers, cold winters, regionally heavy snowfall	Valleys: high peak runoffs in ephemeral drainages; watersheds except Owens River are short, steep ephemeral drainages; stable rock types/soils result in low, coarse-textured sediment yields; Mountains: extended spring runoff with locally high sediment yields in Sierra	Valleys: low to moderate precipitation total due to rain shadow effects of Sierra Nevada and Cascade Mountains; Mountains: regionally heavy winter snowfall and intense summer thunderstorms, average annual precipitation ranges from 0.8-0.7 million-acre-feet
South Coast (Regions 4, 8, and 9)	Mediterranean climate with dry years interrupted by infrequent high precipitation years, warm dry summers, and mild wet winters; Inland: summer temperatures can exceed 90 degrees, intense subtropical storms	Watersheds are largely ephemeral and fed by rainfall, rivers susceptible to frequent flooding due to high peak discharge events, sediment yields locally high due urbanization, low vegetation cover and unstable soils, debris flows and mudflows frequent in some smaller drainages	High rainfall with insignificant snowfall contribution, locally heavy storms have highest 24- hour rainfall totals in the state, average annual precipitation is 4.4-5.1 million-acre-feet
Colorado River (Region 7)	Arid desert region with hot dry summers, locally intense thunderstorms, mild winters, rainfall is limited to a few storms per year	Low runoff due to limited rainfall; but locally heavy during infrequent storm events; overall sediment yields low, but produce debris flows during storms	All precipitation falls in the form of rain, average annual precipitation is 4.2-5.1 million-acre-feet

Sources: Mount (1995), California Department of Water Resources (1994 and 2018)
Notes: [1] Average annual precipitation range from 2011 (wet year) – 2014 (critically dry year).

Surface Water Quality

Surface water quality in California is highly variable, and ranges from very high-quality lakes and streams in the Sierra Nevada and Cascade mountains and in remote or undeveloped areas, to highly polluted drainage courses that carry municipal, agricultural, and industrial wastewater. Surface water quality is affected by agricultural, urban, and industrial sources of pollution. Point sources, which are defined as specific outfalls discharging into natural waters, are easily identified and are regulated by California's Regional Water Boards and the USEPA. Nonpoint sources, including polluted runoff from urban and agricultural sources, are more challenging to identify. Nonpoint sources generally drain into a river or waterway over an extended area, or via many individual inlets. In some instances, waterways that receive polluted runoff and wastewater discharges serve as water supply sources for downstream water users.

Surface water quality depends on seasonal hydrologic patterns, mineral composition of watershed soils, topography, and sources of contaminants. During summer low-flow conditions, surface water quality characteristics of most importance to aquatic life are temperature, dissolved oxygen, turbidity, bio-stimulatory nutrients (e.g., nitrogen and phosphorus), nuisance algae growth, and toxic constituents (e.g., un- ionized ammonia and residual chlorine). During higher stream flow conditions common during winter, water quality is influenced more by stormwater runoff and associated pollutants (e.g., sediment, oil and grease from automobiles and paved areas), nutrients from agricultural fields and livestock boarding areas, and organic litter (e.g., leaves and grass clippings). The quality of surface water used for domestic, agricultural, and industrial supply is characterized by parameters such as total dissolved solids content, turbidity, taste and odor, and levels of toxic contaminants.

The state evaluates current water quality conditions and prioritizes funding efforts for protection, cleanup, and monitoring programs through individual water quality assessments compiled into the State Water Board section 305(b) reporting process, which is mandated under the federal CWA (CWA § 303(d) List/305(b) Report). The section 305(b) report includes section 303(d) lists, which identify water bodies that do not meet applicable water quality standards or designated beneficial uses subject to technology-based controls for waste discharges.

The 2020-2022 Integrated Report for CWA Sections 305(b) and 303(d) enables users to search and view water quality assessment information about specific water bodies in California (California State Water Resources Control Board 2022). The report indicates that most of the state's surface lakes and reservoirs, rivers and streams, freshwater wetlands, and estuaries only partially support all of their designated beneficial uses. Of the water bodies not supporting all of their uses, a small fraction fail to support one or more designated beneficial uses all the time. The report also identifies physical or chemical constituents that cause beneficial uses not to be met.

In general, lake and reservoir beneficial uses are impaired predominantly by the presence of noxious weeds, trace metals, pesticides, taste, and odor problems. Rivers and streams are affected by a much larger variety of constituents, including sediment, pathogens, pesticides, and trace metals. Freshwater wetlands are affected primarily by trace metals, salinity, and other trace elements.

Groundwater Hydrology

Groundwater is used extensively in many areas of the state to support urban, agricultural, and industrial use, especially in areas where surface water supplies are limited, or infrastructure for delivery of surface water is lacking. Such areas include California's Central Valley, southern portion of the San Francisco Bay Area, greater Los Angeles area, and inland desert areas of southern California.

Approximately 40 percent of the total land area of the state is underlain by groundwater basins. The storage capacity of these basins is estimated to be approximately 1.3 billion acre-feet of water. The fraction of water that is usable from these basins, about 143 million acre-feet, is more than three times the total capacity of the state's surface storage reservoirs. About 250 important groundwater basins are present throughout California, supplying about 40 percent of the state's water needs. Statewide, more than 15 million acre-feet of groundwater are extracted for agricultural, municipal, and industrial uses. Table 3.10-2 below lists California's major groundwater basins by region.

Many of California's groundwater basins are located in arid valleys and are recharged by percolation of rainfall and surface water flows. Recharge occurs more readily in areas of coarse sediments, which are usually located near alluvial fans associated with mountain ranges.

Percolation in southern California occurs only during periods of intense precipitation, whereas northern California groundwater basins often receive direct recharge from precipitation annually (California Department of Water Resources 2003). The location and extent of impermeable, confining layers in alluvial deposits that contain groundwater basins play a major role in the amount and rate of recharge of percolating water and overall quality of groundwater.

Groundwater overdraft has been a significant problem in California for many decades. In some portions of the Central Valley, groundwater levels have been depleted by nearly 60-million-acre feet since about 1960 (Faunt 2009). Although state and local agencies are collaborating to reduce groundwater overdraft in many areas of the state, workable and realistic solutions are difficult to develop. As a result, groundwater overdraft is expected to continue for decades across the Central Valley, San Francisco Bay Area, southern desert areas, and several other areas. Over an extended period, extensive groundwater overdraft can result in irreversible land subsidence as depleted aquifers compact. Areas of significant land subsidence are characterized by reduced aquifer capacity and lowered land surfaces relative to historic conditions.

Groundwater Quality

Groundwater quality is also highly variable both by geographical area and by depth within an area. High-quality groundwater exists in the Sierra Nevada, Cascades, and along the eastern side of the Central Valley, but is in aquifers of limited extent. High-quality groundwater also exists in other locations around the state that have limited agricultural and urban development. Groundwater across much of the Coastal Range and western flank of the southern Central Valley, and southern deserts often have high levels of naturally occurring salts and metals that make the water unfit for many uses. In areas with extensive urban or agricultural activities, waste discharges have induced high levels of salts and other contaminants that make groundwater unfit for consumption or other uses unless it is treated. Major sources of groundwater pollution include historic and ongoing waste discharges, leaking USTs, and infiltration of polluted runoff from agricultural and urban areas. Nitrogen fertilizers are of particular concern, because increased nitrate levels in groundwater exceed drinking water standards in many areas of the state (Harter and Lund, 2012). Groundwater pollution can be extremely costly and difficult to remediate.

The State Water Board's Groundwater Ambient Monitoring and Assessment Program (GAMA) is California's comprehensive groundwater quality monitoring program. The GAMA program collects data by testing untreated water in different types of wells for naturally-occurring and man-made chemicals and compiles them along with data from several other agencies. The online GAMA Groundwater Information System Map (https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/) provides and displays groundwater quality data from more than 290,000 discrete well locations on an interactive Google-based map interface. The map also can display well water quality, aquifer risk, and salt and nutrient management.

Based on published hydrogeologic data from Department of Water Resources and the US Geological Survey, in 2000, the State Water Board created the Hydrogeologically Vulnerable Areas Map (https://www.waterboards.ca.gov/water_issues/programs/gama/docs/hva_map_table.pdf) that shows where soil or rock conditions may be more vulnerable (or susceptible) to groundwater contamination, referred to as "hydrogeologically vulnerable areas". The map was created to address groundwater concerns over releases of methyl tert-butyl ether from leaking Underground Storage Tanks. However, areas vulnerable to methyl tert-butyl ether may also be vulnerable to other contaminants released at the surface.

Table 3.10-2 California's Major Groundwater Basins

Regional Water Board Regions	Major Groundwater Basins	Extraction (AF/year)
1- North Coast	Tule Lake, Siskiyou Butte Valley, Shasta Valley, Scott River Valley, Hoopa Valley, Smith River Plain, Mad River Valley, Eureka Plain, Eel River Basin, Covelo Round Valley, Mendocino County	242,338
2 - San Francisco Bay	Petaluma Valley, Napa-Sonoma Valley, Suisun- Fairfield Valley, Santa Clara Valley, Livermore Valley, Marin County, San Mateo County	190,128
3 - Central Coast	Soquel Aptos, Pajaro Basin, Salinas Basin, S. Santa Clara - Hollister, Carmel Valley-Seaside, Arroyo Grande/Nipomo Mesa, Cuyama Valley, San Antonio, Santa Ynez Valley, South Central Coast, Upper Salinas, San Luis Obispo	1,075,800
4 - Los Angeles	Central Basin, West Coast Basin, San Fernando Valley, Raymond Basin, San Gabriel, Upper Ojai Valley, Fox Canyon	808,000
5 - Central Valley	Butte County, Colusa County, Tehama County, Glenn County, Sacramento County, Western Placer County, Yuba County, Sutter County, Eastern Solano County, Yolo County, Sierra Valley, Goose Lake Basin, Big Valley, Fall River Valley, Redding Basin, Almanor Lake Basin, Upper Lake Basin, Lake County/Scotts Valley, Kelseyville, Valley Basin, Coyote Valley, Middletown- Colalyomi Valley, San Joaquin County, Modesto Basin, Turlock Basin, Merced Basin, Chowchilla Basin, Madera Basin, Delta Mendota, Kings Basin, Tulare Lake Basin, Kaweah Basin, Tule Basin, Westside Basin, Pleasant Valley Basin, Kern County Basin	8,320,100
6 - Lahontan	Surprise Valley, Honey Lake Valley, Long Valley Basin, Thermo- Madeline Plains, Willow Creek Valley, Secret Valley, Owens Valley, Death Valley, Mojave River Valley, Antelope Valley	397,200
7 - Colorado River	Warren Valley, Coachella Valley, Cuckwalla	114,740
8 - Santa Ana	Orange County (also in Region 9), San Bernardino Basin Area, Riverside Basin Areas 1 and 2, Colton Basin	498,180
9 - San Diego	Temecula Valley, San Juan Valley, El Cajon Valley, Sweetwater Valley, Otay Valley, Warner Valley, San Luis Ray	34,000[1]

Sources: California Department of Water Resources (1994 and 2003)
Note: [1] total does not include Warner Valley or San LuisRey – extraction rate unknown
Abbreviations: AF = Acre-Feet

3.10.4 Impact Analysis

Methods for Analysis

Project Activity impacts to hydrology were qualitatively assessed using best professional judgment. The analysis evaluates how reasonably foreseeable Project Activities authorized by the General Order could impact hydrology. The Project Area's baseline encompasses a legacy of hydrological modification and includes disturbances that existed at the time of the Notice of Preparation. Project Activities permitted under this General Order would potentially cause additional disturbance due to the nature of enhanced wildfire prevention and post-fire response. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities that would be authorized by the General Order. This section describes impacts in terms of location, context, duration, and intensity. The analysis assumes that Utility Services will implement General Order requirements, mitigation measures (as applicable), and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to hydrology and water quality would be considered significant if projects permitted under the General Order would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrades surface or ground water quality;
2. Substantially decrease groundwater supplies or interferes substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
3. Substantially alter the existing drainage pattern of the 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 which will:
    a. result in substantial erosion or siltation on- or off-site,
    b. substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or offsite,
    c. create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or
    d. impede or redirect flood flows;
4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
5. Conflicts with or obstructs implementation of a water quality control plan or sustainable groundwater management plan.

Impacts and Mitigation Measures

For impacts 1 through 3, the following General Order requirements will avoid or minimize impacts to Hydrology:

- **Access Route Standards** – If not properly designed and maintained, unpaved access routes can be a major source of sediment and other pollutants to surface waters. These standards ensure that access routes are designed and maintained in a manner that will minimize erosion and sedimentation. Such standards include installation of drainage structures on the route surface that hydrologically disconnect road runoff from waterbodies.
- **Construction Best Management Practices** – requires implementation of appropriate BMPs to prevent construction activity impacts on natural resources, including structural controls to prevent and reduce the discharge of pollutants from runoff, spillage or leaks, and waste disposal. Best management practices also include non-structural controls such as scheduling construction to avoid special status species impacts and preserving existing vegetation.
- **Restoration Plans** – Projects have the potential to adversely impact the environment even after construction activities are complete if the project site is not appropriately restored. The intent of this requirement is to ensure that project areas are fully restored to pre-existing conditions after construction activities are complete. Restoration includes stabilizing disturbed areas, replanting native vegetation, regrading slopes to pre-construction contours, and removing all construction equipment.

In addition, in some instances, other State or Regional Water Board permits may be required for Project Activities. For example, the Construction General Permit establishes erosion and sediment control standards for activities that disturb over an acre of soil. Collectively, these requirements will avoid and minimize impacts to Hydrology from Project Activities.

Impact WQ-1: Would projects permitted under the General Order violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? (Less-than-Significant Impact)

Project Activities such as infrastructure replacement, excavation, grading, vegetation management, and drilling, involve ground disturbance. Project Activities such as equipment refueling associated with the operation of equipment, and herbicide application could result in accidental leaks or spills. Thus, Project Activities could result in accidental discharges of sediment or other pollutants that may be introduced into drainage structures or other waterbodies and could result in short-term impacts on water quality.

Contaminated groundwater may be encountered during trenching or excavation activities. If contaminated groundwater is encountered, it would be pumped into a temporary holding tank (e.g., a baker tank) and discharged in compliance with applicable permitting requirements. The issuance of this General Order, and the

expected Project Activities permitted thereunder, would not increase groundwater drafting.

Some of the activities covered by the General Order will comply with the Construction General Permit, which requires implementation of a Stormwater Pollution Prevention Plan (SWPPP) for activities disturbing one acre or more of land. Project Activities that are not subject to the Construction General Permit are required to develop an Erosion and Sediment Control Plan, that describes the location and purpose of BMPs to prevent contaminants within the Project Area from entering surface waters. Additionally, Project Activities are required to restore and stabilize disturbed areas by compacting disturbed soils and planting vegetated cover. In the event of an accidental discharge, or other noncompliance events, Utility Services are required to notify the applicable Regional Water Board within three working days and take action to eliminate or minimize water quality impacts. Collectively, General Order requirements avoid and minimize water quality impacts. Therefore, Project Activities would have a **less-than-significant impact**.

Impact WQ-2: Would projects permitted under the General Order substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? (Less-than-Significant Impact)

The issuance of this General Order, and the expected Project Activities permitted thereunder, would not substantially decrease groundwater supplies, interfere with groundwater recharge, or impede sustainable groundwater management of the basin. Although Utility Services use water for grading and compaction, dust control, horizontal directional drilling, and worker consumption, the water is typically sourced from domestic water provided by local municipal sources. The amount of water required for Project Activities is minimal because Project Activities are generally short-term. Individually or collectively, these temporary and short-term water uses would not substantially decrease groundwater supplies.

Utility Services could encounter groundwater during trenching, excavation, and drilling activities that require Utility Services to temporarily dewater a small, local, area until construction is complete; however, the dewatering process is typically short-term (a few hours) and would not significantly decrease groundwater supply. Dewatered groundwater would be tested and discharged in accordance with applicable Water Board permits, and the General Order requirements. Therefore, the impact on groundwater supplies is negligible.

Conversion of permeable surfaces (e.g., grasslands, bare soil) to impermeable surfaces (e.g., pavement, concrete) could reduce groundwater recharge. However, the General Order covers activities conducted for the purpose of wildfire mitigation, operation and maintenance, and post-fire response, all of which are associated with existing infrastructure. Aside from minor, discrete, activities (e.g., replacement of an electric utility pole), conversion of permeable to impermeable surfaces will not typically be

authorized under the General Order; thus, Project Activities are not anticipated to result in a significant net increase of impermeable surfaces.

Project Activities would not substantially decrease groundwater supplies, interfere substantially with groundwater recharge, or impede sustainable groundwater management of the basin. Therefore, impacts would be **less-than-significant**.

Impact WQ-3: Will projects permitted under the General Order substantially alter the existing drainage pattern of the 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 which will:
i. Result in substantial erosion or siltation on- or off-site? (Less-than-Significant Impact)

Project Activities such as infrastructure replacement, excavation, grading, vegetation management, and drilling, involve ground disturbance. Project Activities near surface water features and riparian areas can result in erosion and siltation that could affect water quality onsite and downstream. Repair or replacement of facilities within streambeds occasionally requires installation of riprap to stabilize infrastructure close to an incised stream channel.

For ground disturbing Project Activities, the General Order requires the Utility Services to prepare and implement a plan to control erosion and prevent the mobilization of sediment from entering surface waters. Some of the activities covered by the General Order will comply with the Construction General Permit, which requires implementation of a SWPPP for activities disturbing one acre or more of land. For Project Activities that are not subject to the Construction General Permit, the General Order requires the Utility Services to develop an Erosion and Sediment Control Plan, that describes the location and purpose of BMPs to prevent erosion and siltation within the Project Area. Additionally, the General Order requires that Utility Services restore and stabilize disturbed areas; for example, by compacting disturbed soils and planting vegetated cover. Since erosion and siltation will be controlled within the Project Area, and will not substantially alter existing drainage patterns, Project Activity impacts to water quality from substantial erosion or siltation would be **less-than-significant**.

ii. Substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or off-site? (Less-than-Significant Impact)

Project Activities include the placement of fill near and within a surface water. Utility infrastructure in surface water could vary the feature’s natural drainage and/or inundation regime. For example, riprap installation to stabilize a streambank has the potential to result in hydromodification and alteration of drainage patterns. Access route construction could alter the existing drainage by creating linear segments of impervious surfaces that intersect waters of the state and natural sheet flows. If not designed appropriately, flooding could occur on the access route’s watercourse crossings, or

could further exacerbate flooding of surface runoff. These access routes could alter the area's preexisting sheet flows, which could collect on access routes, cause erosion, and direct sedimentation into waters of the state.

The General Order includes requirements for the Utility Services specific to in-water work, including an incorporation of drainage structures and other design features that prevent hydrologic connection between the access route and surface waters, as well as effectively engineered sediment and erosion control BMPs, which would limit the impact that Project Activities would have on surface runoff. Adherence to General Order requirements would limit potential impacts to water quality and reduce the likelihood of altering drainage patterns and increasing flood risk. Additionally, Project Activities near surface waters must avoid and minimize impacts, including potential flood risk impacts, before the placement of any fill is approved. Project Activities that substantially increase flooding risk or alter existing drainage patterns would not qualify for General Order coverage. Therefore, Project Activity impacts to surface runoff which will result in flooding on- or off-site would be **less-than significant**.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? (Less-than-Significant Impact)

As described in Impact WQ-3ii, few Project Activities could result in the net addition of impervious surfaces, predominantly consisting of constructed access routes. The addition of impervious surfaces could concentrate additional surface runoff. Project Activities have the potential to incidentally introduce pollutants from equipment operation and maintenance to surface runoff, which could flow offsite or infiltrate into groundwater basins. Potential pollutant sources include diesel fuel, hydraulic fluid, oil, grease, sediment, and trash.

Utility Services would be required to comply with General Order conditions to eliminate or minimize potential impacts from construction, including waste disposal and spill prevention. Therefore, Project Activities would have a **less-than-significant** impact on water quality from polluted runoff.

iv. Impede or redirect flood flows? (Less-than-Significant Impact)

As described above in Impact WQ-3ii and -3iii, Project Activities could impede or redirect natural drainage. This could result in flooding, erosion, sedimentation, and other discharges of pollutants. In addition, Utility Service infrastructure could extend past existing footprints and equipment upgrades could potentially alter or redirect flood flows. Utility Services would be required to comply with General Order conditions specific to access road surface drainages, including the incorporation of drainage structures that adhere to specific parameters, as well as effectively engineered sediment and erosion control BMPs, which would limit the impact that Project Activities would have on flood

flows. Therefore, the impact on water quality from the redirecting or impediment of surface flows as a result of Project Activities would be **less-than-significant**.

Impact WQ-4: Would projects permitted under the General Order in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (No Impact)
Project Activities are unlikely to occur in flood hazard, tsunami, or seiche zones. Furthermore, any Project Activities within these zones would not result in the release of pollutants due to project inundation. Therefore, there would be **no impact.**

Impact WQ-5: Would projects permitted under the General Order conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (No Impact)
Project Activities will be conducted in adherence with water quality control plans and/or sustainable groundwater management plans. This General Order does not authorize any project that would obstruct implementation of a water quality control plan, or sustainable groundwater management plan. Therefore, there would be **no impact**.

3.11 LAND USE AND PLANNING

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Physically divide an established community?				X
2) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

3.11.1 Introduction

This section discusses land use and planning resources in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, Project Activities will result with no impacts to physically divide an established community or cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation.

3.11.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to land use and planning in the Project Area.

Federal

The Project Area contains federally owned lands each with their own specific land use plans. These include land under jurisdiction of the USFS, US Bureau of Land Management, US National Parks Service, USFWS, and the US Department of Defense.

Coastal Zone Management Act

The authority to evaluate projects conducted, funded, or permitted by the federal government is granted to coastal states through the federal CZMA of 1972, as amended in 1990 under the Coastal Zone Act Reauthorization Amendments (16 US Code 1451 et seq.). The act requires that federal actions be consistent to the maximum extent practicable with federally approved state coastal plans.

Habitat Conservation Plans

Per Section 10 of the federal ESA, Habitat Conservation Plans are developed when permitting take of federally listed species. Authorized incidental take is mitigated by measures specified in each plan, which generally include habitat conservation and management to offset permitted take. Conservation plan conditions are applicable to plan participants (which generally include land use agencies or private entities). For Project Activities that would occur in a plan area of an adopted Habitat Conservation Plan or Natural Community Conservation Plan, an eligible applicant could acquire and Incidental Take Permit through voluntary participation if plan coverage and permit issuance is available; for proposed Project Activities that are not covered by the plan, the Utility Service would need to pursue individual project permitting.

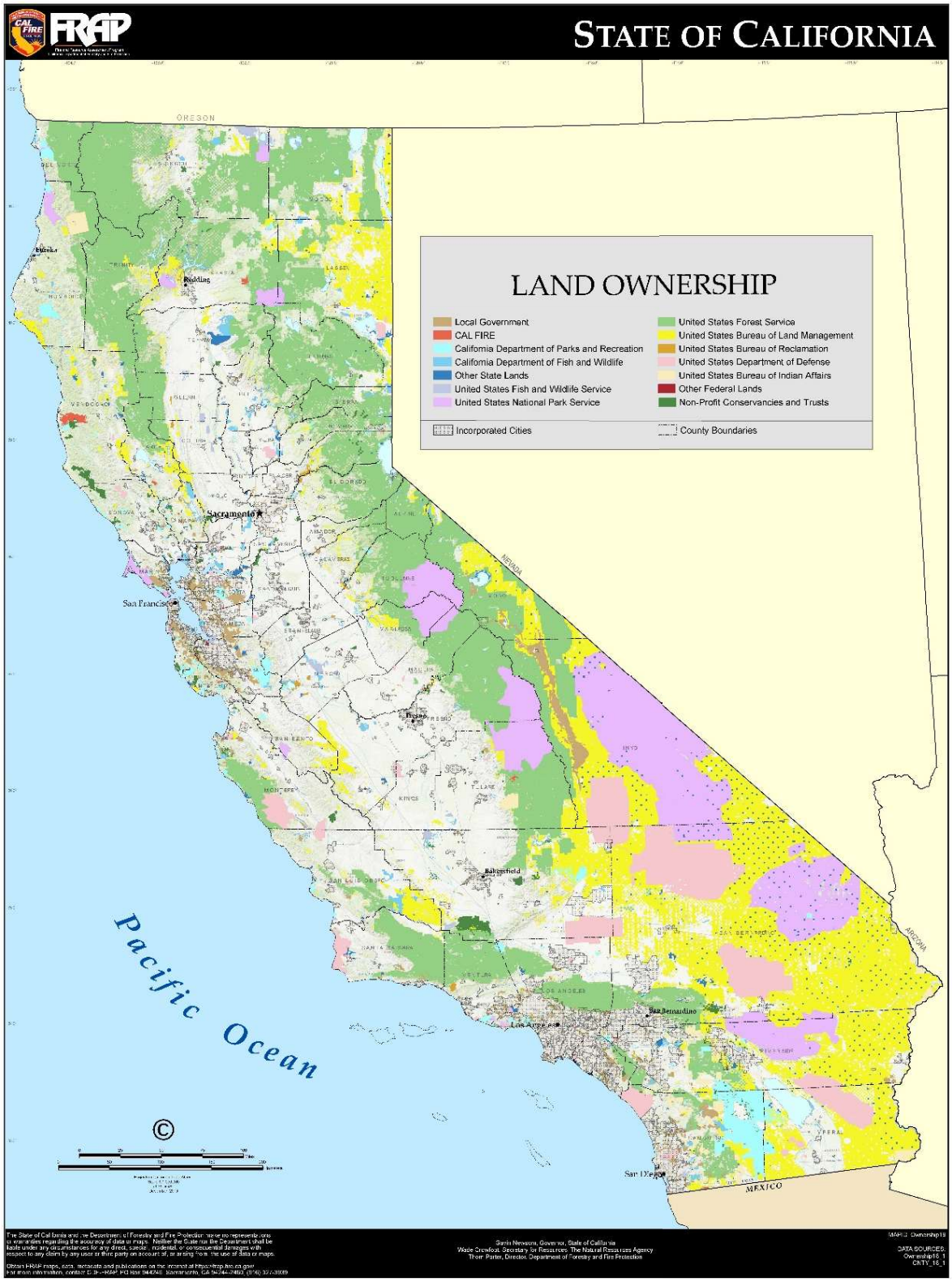
Wild and Scenic Rivers Act of 1968

This act established a National Wild and Scenic Rivers System for the protection of rivers with important scenic, recreational, fish and wildlife, and other values. The act contains procedures and limitations for control of lands in federally administered components of the System and for disposition of lands and minerals under federal ownership.

State

Project Activities could occur in state-owned and managed lands, each with its own specific land use regulations. These include land under jurisdiction of the California State Lands Commission, California Department of Parks and Recreation, CDFW, and CAL FIRE (Figure 3.11-1).

Figure 3.11-1: California Land Ownership



Source: California Department of Forestry and Fire Protection 2019

California Coastal Act

The CCA regulates coastal development throughout the state. The Coastal Act created a "coastal management zone" that generally extends 3 miles seaward and up to 5 miles inland from the mean high tide line. In particularly important and generally undeveloped areas where there can be considerable impact on the coastline from inland development, the coastal zone may extend to a maximum allowable limit. In developed urban areas, the coastal zone generally extends inland for a much shorter distance. Each city or county government whose jurisdiction includes land in the coastal zone develops a Local Coastal Program for the area, which guides the planning, conservation, and use of coastal resources, must be consistent with the CCA, and must be certified by the CCC. Any entity wishing to develop land within the coastal zone must obtain a Coastal Development Permit from the relevant city or county with an approved Local Coastal Program, and the development plan must be consistent with the policies of the Local Coastal Program.

California Public Utilities Commission Acts and Regulations

Article VII, Paragraph 5 of the California Constitution, through the state Legislature, vests the CPUC with exclusive jurisdiction over the siting and design of gas and electrical facilities. Electrical utility facilities are regulated under General Order 131-D, which is similarly aimed at ensuring safety and reliability of service, and which establishes requirements for project review and approval, depending upon the nature and scope of the project.

Article XII, Section 8 of the California Constitution explicitly prohibits municipalities from regulating "matters over which the Legislature grants regulating power to the Commission" California Public Utilities Code Section 1007.5 and other California statutes and case law detail the nature and extent of this sole discretionary permitting authority. Because state law has preempted local permitting authority, Utility Services are not subject to local land use planning or zoning requirements.

Natural Community and Conservation Plans

The Natural Community and Conservation Planning Act allows for the creation of Natural Community and Conservation Plans to protect state-listed species, usually in connection with the issuance of a Section 2081 Incidental Take Permit under the California ESA. Utility Services would commit to obtaining permits as necessary on a case-by-case basis.

Local

General Plans

The most comprehensive local land use planning for the Project Area is provided by city and county general plans, which local governments are required by state law to prepare as a guide for future development (Government Code Section 65300 et seq.). General plans are divided into elements, of which seven are required: land use, circulation, housing, conservation, open space, noise, and safety. Other elements that local

governments frequently choose to include in general plans address public facilities, parks and recreation, community design, and growth management.

Zoning

The city or county zoning code is the set of detailed requirements that implement the general plan policies at the level of the individual parcel. The zoning code presents standards for different uses and identifies which uses are allowed in the various zoning districts of the jurisdiction. State law requires the city or county zoning code to be consistent with the jurisdiction's general plan (Government Code Section 65860).

Utility Services would regularly consult with local cities and counties in locating its projects to ensure that local concerns and issues are considered during the project planning process; Project Activities are developed and implemented in such a way as to be consistent with existing local zoning ordinances, when feasible.

3.11.3 Environmental Setting

Habitat Conservation Plans/Natural Community Conservation Plans

Habitat Conservation Plans and Natural Community Conservation Plans have been adopted for portions within the state. In addition to major conservation plans, numerous small project-specific Habitat Conservation Plans have been developed to address localized effects of individual projects.

Wetland and Water Resources

Waters of the state include freshwater, estuarine, and coastal wetlands and non-wetland waters. There are approximately 3 million acres of wetlands in California. The state has 10 major drainage basins, also known as the state's hydrologic regions. From north to south the basins are: North Coast, Sacramento River, North Lahontan, San Francisco Bay, San Joaquin River, Central Coast, Tulare Lake, South Lahontan, South Coast, and Colorado River. In addition, there are hundreds of rivers and streams and more than 1,500 lakes and reservoirs in California. The state's largest estuarine waters from north to south are the Smith River, Klamath River, Eel River, Mad River, Noyo River, Russian River, San Francisco Estuary, Elkhorn Slough, Moro Bay Estuary, and Santa Monica Bay. Major groundwater basins of California are listed in Section 3.10 Hydrology and Water Quality.

Zoning and Land Use Designations

The city and county general plan-designated land uses and zoning vary significantly within the state. In undeveloped and rural areas, the primary designated land uses and zoning allow for agriculture, low-density rural residential uses, public lands, and open space. Designated land uses and zoning in more urban areas include commercial, industrial, and medium- to high-density residential uses.

3.11.4 Impact Analysis

Methods for Analysis

Project Activity impacts to land use and planning were analyzed qualitatively based on how the actions typically impact existing land use and planning resources. The impact analysis evaluates how Project Activities could increase potential impacts on land use with the issuance of the General Order. The Project Area's baseline encompasses a legacy of disturbance from Utility Service operation and maintenance and wildfire mitigation activities. The analysis assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to land use would be considered significant if projects permitted under the General Order would:

1. physically divide an established community; or
2. cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impacts and Mitigation Measures

The General Order would authorize projects related to wildfire mitigation and operations and maintenance of Utility Service infrastructure. Project Activities will not physically divide an established community, or conflict with any land use plan, policy, or regulation. Therefore, Project Activities will result in **no impacts** to land use and planning.

3.12 MINERAL RESOURCES

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
2) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

3.12.1 Introduction

This section discusses mineral resources in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, Project Activities will result in no impacts to mineral resources of local, regional, and statewide importance.

3.12.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to minerals in the Project Area.

Federal

No federal regulations related to mineral resources are applicable to the project.

State

Surface Mining and Reclamation Act of 1975

The California Surface Mining and Reclamation Act of 1975 requires that the State Geologist classify land into mineral resource zones according to the known or inferred mineral potential of the land. California Surface Mining and Reclamation Act of 1975 was enacted by the California Legislature to address the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. The Department of Conservation's Division of Mine Reclamation and the California State Mining and Geology Board are jointly charged with ensuring proper administration of the California Surface Mining and Reclamation Act requirements.

California Surface Mining and Reclamation Act of 1975 mandates the California Geological Survey to provide economic-geologic expertise to assist in the protection and development of mineral resources through the land-use planning process; the primary products are mineral land classification maps and reports. Local agencies are required to use the classification information when developing land-use plans and when making land-use decisions.

Per the California Surface Mining and Reclamation Act of 1975, the California Geologic Survey evaluates mineral resources through classification of mineral resource zones, which reflect the known or inferred presence and significance mineral resources. The mineral resource zones are categorized by available geologic information, including geologic mapping and other information on surface exposures, drilling records, mine data, and socioeconomic factors (e.g., market conditions and urban development patterns). The mineral resource zones classifications are defined in Table 3.12-1: Mineral Resource Zone Definitions.

Table 3.12-1: Mineral Resource Zone Definitions

Mineral Resource Zone Type	Definition
Mineral Resource Zone-1	Areas where available geologic information indicates there is little likelihood for the presence of mineral resources.
Mineral Resource Zone-2a	Areas that contain significant measured or indicated reserves.
Mineral Resource Zone-2b	Areas where geologic information indicates that significant inferred resources or demonstrated subeconomic resources are present.
Mineral Resource Zone-3a	Areas likely to contain undiscovered mineral deposits similar to known deposits in the same producing district or region (hypothetical resources).
Mineral Resource Zone-3b	Areas judged to be favorable geologic environments for mineral resource occurrence, but where mineral discoveries have not been made in the region (speculative resources).
Mineral Resource Zone-4	Areas where geologic information does not rule out either the presence or absence of mineral resources.

Source: California Geological Survey, 2000

California Assembly Bill 3098 List

The Department of Conservation's Division of Mine Reclamation publishes daily a list of mines regulated under California Surface Mining and Reclamation Act that are in compliance with PRC Section 2717(b). Generally referred to as the "Assembly Bill 3098 List" in reference to the legislation that established it, this list sets out conditions that mining operations must meet. To be included on the list, an operation must:

a) have an approved reclamation plan,
b) have approved financial assurance,
c) have filed its annual report,
d) have paid its reporting fee, and
e) have had its annual inspection by the lead agency that reflects the operation is in full compliance with the law.

Local

General Plans

California law requires local jurisdictions (including counties and cities) to develop comprehensive, long-term general plans to guide their land use decision making and physical development. Of the seven required "elements," or chapters, in a general plan, the conservation and open space elements are most applicable to mineral resources. The minerals section of the conservation element would locate an inventory mineral resource designated by the California State Mining and Geology Board under the California Surface Mining and Reclamation Act, and include polices that plan for the protection, use, and development of mineral resources. The element would also locate and plan for the protection, use, and development of rock, sand, and gravel resources, one of the optional issues listed in Government Code Section 65302(d)(2) if those resources are found in the jurisdiction. The open space element would identify areas containing major mineral deposits, including those in short supply.

3.12.3 Environmental Setting

Based on the active mine listing criteria detailed in AB 3098 and 3257, there are 761 active mines in California (California Department of Conservation 2022). These mines vary in size and are primarily aggregate mines, which produce sand, gravel, and other materials used in building and road construction.

3.12.4 Impacts Analysis

Methods for Analysis

Project Activity impacts to mineral resources or a locally important mineral resource recovery site were qualitatively analyzed based on how actions typically impact existing mineral resources. The analysis assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA. Impacts to mineral resources would be considered significant if projects permitted under the General Order would:

1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
2. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Impacts and Mitigation Measures

The General Order would authorize projects related to wildfire mitigation and operations and maintenance of Utility Service infrastructure. Project Activities will not result in loss of availability of either a known mineral resource that would be of value to that region and the residents of the state; or a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, Project Activities will result in **no impacts** to mineral resources.

3.13 NOISE

Would Projects Permitted Under the General Order result in:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
2) Generation of excessive groundborne vibration or groundborne noise levels?		X		
3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, will the project expose people residing or working in the project area to excessive noise levels?		X		

3.13.1 Introduction

This section discusses noise in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, potential impacts to noise standards in applicable general plan, local noise ordinances, and other agency regulations are evaluated.

3.13.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to noise in the Project Area.

Federal

US Environmental Protection Agency Office of Noise Abatement

The USEPA's Office of Noise Abatement and Control was originally established to coordinate federal noise control activities. The Office of Noise Abatement and Control subsequently enforced the Federal Noise Control Act of 1972, which established programs for identifying and addressing the effects of noise on public health, welfare, and the environment.

In 1981, agency administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982, responsibilities for regulating noise control policies were transferred to state and local governments. However, federal action is essential for dealing with major noise sources in commerce, control of which requires nationally uniform treatment. Congress has directed the USEPA to coordinate the programs of all federal agencies related to noise research and noise control.

State

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate the noise levels of motor vehicles, sound transmission through buildings, occupational noise, and noise insulation. Though not adopted by law, the *State of California General Plan Guidelines 2017,* published by the California Governor's Office of Planning and Research, provides guidance for project compatibility in areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been identified to help guide new land use decisions in California communities. Many local jurisdictions use these guidelines to derive local noise standards and guidance.

Generally, residential uses (e.g., mobile homes) are considered acceptable in areas where exterior noise levels do not exceed a 60 a-weighted decibel day-night average sound level. Residential uses are normally unacceptable in areas where exterior noise levels exceed 70 a-weighted decibels day-night average sound levels and conditionally acceptable where day-night average sound levels are in the range of 55–70 a-weighted decibels. Schools are normally acceptable in areas with exterior noise levels up to 70 a-weighted decibels at day-night noise levels and normally unacceptable where with levels exceed the threshold. Industrial uses are normally acceptable in areas with exterior noise levels up to 75 a-weighted decibels community noise equivalent level. Day-night noise levels between 70 and 80 a-weighted decibels for industrial uses are conditionally acceptable, depending on the noise insulation features and noise reduction requirements. The guidelines also present adjustment factors that may be used to determine noise acceptability standards that reflect the particular community's noise

control goals, sensitivity to noise, and assessment of the relative importance of noise pollution.

Local

General Plans and Local Noise Ordinance

Cities and counties adopt noise elements in their general plans to identify land use compatibility standards, goals, and policies, to achieve land use compatibility between noise and development. The noise element typically assesses current and projected future noise levels associated with local noise sources, including traffic, trains, aircraft, and industrial operations. Local jurisdictions may adopt their own noise exposure goals and policies, which may or may not be the same or similar to those recommended by the state.

In general, noise-sensitive land uses are compatible with exterior transportation-related noise exposure not exceeding 65 decibels for the day-night average sounds level/community noise equivalent level. Additionally, interior noise exposure (from transportation sources) should not exceed 45 decibels day-night average sounds level/ community noise equivalent level within noise-sensitive spaces. General plan noise element standards are for planning purposes and are not generally intended to address noise complaints or other code compliance issues. Cities and counties often provide noise level performance standards for non-transportation noise sources (e.g., commercial/industrial facilities, mechanical equipment). These standards are used to address intermittent noise exposure and are often expressed in terms of equivalent continuous sound level or the highest noise level reached during a measurement period or a noise event. These criteria are generally tied directly to the standards presented in the noise ordinance of the city or county code.

In addition to the general plan noise element, local jurisdictions often regulate noise exposure through noise ordinance enforcement. The noise ordinance is generally applied to address noise complaints associated with non-transportation sources (e.g., public address systems, mechanical equipment), and often addresses construction noise exposure and production limits. Noise exposure criteria presented within local codes would match any performance criteria that may be presented in the noise element of the general plan. Although exact time periods differ, most jurisdictions exempt construction noise from local noise limits during daylight hours or a similar restriction from Monday through Saturday.

3.13.3 Environmental Setting

The Project Area’s existing noise environment has two primary noise sources: transportation and non-transportation. Transportation sources include surface vehicle traffic, aircraft operations, and railroad operations, including light rail and commuter trains. Non-transportation sources include commercial/industrial equipment, construction equipment, and any other sources not associated with the transportation of

people or goods. In addition to generating noise, various sources can generate groundborne vibration. Existing noise and vibrational exposure in the Project Area associated with these primary noise and vibration sources and their proximity to sensitive receptors[5] are presented in the following subsections.

Noise

Rail Noise Sources

A common noise source is rail noise from freight and passenger rail operations. Although these operations can generate substantial noise levels in the immediate vicinity of the railways, train operations are intermittent, and railways are widely dispersed in the Project Area. The contribution of rail noise to the overall ambient noise environment in the Project Area is relatively minor compared with other sources such as traffic. Train operations may be a source of groundborne vibration near the tracks, and vibration-sensitive receivers within 100 feet of rail operations may be adversely affected by vibration exposure during train events. However, because railways are widely dispersed in the Project Area, train vibration does not affect the majority of sensitive land uses in the Project Area.

Aircraft Noise Sources

Many airports are located within the Project Area, including public use, private use, and military facilities; these facilities include large and small airports. All airport operations contribute to the overall ambient noise environment. In general, the proximity of the receiver to the airport and aircraft flight path determines the noise exposure. Other contributing factors include the type of aircraft operated, altitude of the aircraft, and atmospheric conditions. Noise levels from aircraft activity are generally higher in close proximity to airports. Not all sensitive receptors in the Project Area are located close enough to airports to be affected by aircraft noise.

Operation and Maintenance Noise Sources

New development and implementation of infrastructural improvements generally require activities that result in short-term noise increases. Noise associated with heavy equipment can dominate the noise environment in the vicinity of operation and maintenance activity sites. Stationary sources such as generators, pumps, and compressors also contribute to the overall noise environment. However, the noisiest operation and maintenance activities are those requiring the use of impact equipment (e.g., pile driving, pavement breaking); these types of activities generally produce the highest noise levels of any construction equipment and may also produce vibration that can be perceptible in the vicinity of the operation and maintenance activities.

[5] Sensitive noise receptors are defined as persons, places, or wildlife that could be adversely affected by noise or vibration.

Industrial and Other Non-Transportation Noise Sources

A wide variety of industrial and other non-transportation noise sources are located within the Project Area. These types of facilities include manufacturing plants, landfills, water and wastewater treatment plants, power generation facilities, food packaging plants, and aggregate mining facilities. The noise levels generated by these sources vary and generally contribute noise in the immediate vicinity of the source.

Table 3.13-1 reports sound levels of common outdoor sources. For comparison, Table 3.13-2 below reports the sound levels of commonly used construction equipment 50 feet from the source.

Table 3.13-1 Typical Sound Levels Measured in the Environment and Industry

Common Outdoor Activities	Sound Level (dBA)	Common Indoor Activities
-	110	Rock band
Jet flyover at 1,000 feet	100	-
Gas lawn mower at 3 feet	90	-
Diesel truck moving at 50 mph at 50 feet	80	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, Gas lawn mower at 100 feet	70	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, heavy traffic at 300 feet	60	-
Quiet urban daytime	50	Large business office, Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library, bedroom at night, concert hall (background)
Quiet rural nighttime	20	Broadcast/recording studio

Source: Caltrans, 2013

Abbreviations: dBA = A-weighted decibels
mph = miles per hour

Table 3.13-2 Typical Noise Generation for Commonly Used Construction Equipment

Equipment	Typical L_{max} Noise Level 50 Feet from Source (dBA)
Air compressor	78
Backhoe	78
Bulldozer	82
Chainsaw	85
Compactor	80
Concrete mixer	85
Concrete pump	82
Vibratory concrete mixer	80
Crane	85
Concrete saw	90
Dump truck	84
Excavator	85
Generator	82
Grader	85
Helicopter (single rotor)[1]	91
Jackhammer	85
Front-end loader	80
Paver	85
Pile driver (impact)	101
Pile driver (vibratory)	101
Pneumatic tool	85
Pump	77
Rock drill	85
Roller	85
Scraper	85

Source: Federal Transit Administration, 2018

Notes: [1]Single-rotator helicopter at 500 feet under level flight conditions

Vibration

Generally speaking, vibration is energy transmitted in waves through the ground. Because energy is lost during its transfer from one particle to another, vibration energy is reduced with increasing distance from the source. Vibration attenuates at a rate of approximately 50 percent for each doubling of distance from the source. This approach only takes into consideration the attenuation from geometric spreading. Because additional factors reduce vibration over distance (e.g., damping from soil conditions), this approach tends to provide for a conservative assessment of vibration level at the receiver.

Human perception of vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels (e.g., people in an urban environment) may tolerate a higher vibration level.

The Caltrans Transportation and Construction Vibration Guidance Manual (2020) provides practical guidance to engineers, planners, and consultants who must address vibration issues associated with road projects. Continuous or frequent intermittent vibration sources, such as impact pile drivers, are significant when their peak particle velocity exceeds 0.1 inch per second. Caltrans has developed more specific criteria for human annoyance and would be used to evaluate potential program vibration sources. Reported below, Table 3.13-3 lists Caltrans's thresholds of perception for transient vibration.

Table 3.13-3: Human Response to Transient Vibration

Human Response	Peak Particle Velocity Inches Per Second
Severe	2.0
Strongly Perceptible	0.9
Distinctly Perceptible	0.24
Barely Perceptible	0.035

Source: California Department of Transportation, 2020

Existing Vibration Sources

Vibration in the Project Area is generated by a variety of existing sources. During Project Activities, heavy equipment used to perform this work would be the dominant source of vibration in the vicinity. Impact pile drivers, small hand-held soil compactors (e.g., plate compactors), equipment that breaks and re-seats pavement (e.g., crack-and-seat equipment), excavation equipment, static compaction equipment, tracked vehicles, vehicles on roadways, vibratory pile drivers, pile-extraction equipment, and vibratory compaction equipment are typically associated with continuous vibration. The activities that are typically associated with single-impact (i.e., transient) or low-rate,

repeated impact vibration include blasting and the use of drop balls or dropped metal plates.

Pile driving and similar activities impact the ground and create vibrational waves that radiate outward and downward from the point of impact. Such an effect can be an annoyance to nearby noise-sensitive receptors and has the potential to cause structural damage to nearby buildings. Blasting and/or the use of impact equipment (e.g., pile drivers) would be uncommon during Project Activities and would be subject to the Utility Service's environmental review process. A review of these activities and surrounding conditions would be conducted to ensure that damage to surrounding structures would be avoided. In addition, these activities would be linear in nature and are phased appropriately so it is unlikely that a single receptor would be subjected to these impacts for an extended period of time.

Noise-Sensitive Receptors

Noise-sensitive receptors generally are defined as locations where people reside or where the presence of unwanted sound may adversely affect the existing land use. Typically, noise-sensitive land uses include residences, hospitals, places of worship, libraries, performance spaces, offices, and schools, as well as nature and wildlife preserves, recreational areas, and parks. During Project Activities, sensitive receptors would be subject to temporary increases in ambient noise and vibration levels. However, due to the phasing and linear nature of Project Activities, no single receptor would be subjected to this impact for an extended period of time.

3.13.4 Impact Analysis

Methods for Analysis

Project Activity noise and vibration impacts were assessed qualitatively based on professional judgment of activities and methods currently implemented by Utility Services. The Project Area's environmental baseline encompasses noise disturbance from Utility Service operation and maintenance and wildfire mitigation activities that were ongoing at the time of the Notice of Preparation. The impact analysis focuses on evaluating potential impacts to noise from the projected increased pace and scale of Project Activities. The analysis assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Noise impacts would be considered significant if projects permitted under the General Order would:

1. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
2. Generate excessive groundborne vibration or groundborne noise levels; or
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Impacts and Mitigation Measures

Impact NOI-1: Would projects permitted by the General Order result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Less-than-Significant with Mitigation)

Noise associated with ongoing Project Activities would primarily be generated by the following sources:

a) Vehicles (e.g., trucks, helicopters, and fixed-wing light aircraft, all-terrain vehicles) used for inspection patrols and employee access trips
b) Heavy machinery (e.g., cranes, excavators, scrapers) used for maintenance
c) Smaller equipment (e.g., chainsaws, generators) used for a vegetation management and a variety of Project Activities

Project Activities would generally be conducted in compliance with local noise standards and ordinances and the work would be temporary and of short duration. In addition, the linear nature of many Utility Service projects reduces the construction time in any single location and reduces the duration any one receptor would be exposed to sounds. However, Project Activities could still have a significant noise impact through exceeding local general plan standards, noise ordinances, or applicable standards.

Mitigation

Implementation of Mitigation Measure NOI-1 would ensure Project Activities adhere to noise standards which would likely include limitations to the duration, frequency, and timing of noise generation.

Mitigation Measure NOI-01: Adherence to Noise Standards and Policies per the Applicable General Plan, Noise Ordinances, or Other Agency Regulations

Noise-generating Project Activities would follow applicable general plans, noise ordinances, and other agency or agencies regulations for the jurisdiction located within the vicinity of the project.

Significance After Mitigation

Noise impacts exceeding local general plan standards, noise ordinances, or applicable standards would be **less-than-significant with mitigation**.

Impact NOI-2: Would projects permitted under the General Order result in generation of excessive groundborne vibration or groundborne noise levels? (Less-than-Significant with Mitigation)

The noise generated from groundborne vibration or noise levels should be similar to the types of noise associated with routine operation and maintenance activities that are regularly occurring and incorporated into the project baseline. But issuance of this General Order may result in an increase in the pace and scale of Utility Service operation and maintenance and wildfire mitigation activities. Vibration from most construction and earthmoving activities is typically below the "distinctly perceptible" threshold of 0.04 peak particle velocity for continuous sources of vibration (refer to Table 3.13-3: Human Response to Transient Vibration) at distances of more than about 50 feet; any such occurrences above that threshold would be unusual, intermittent, and temporary. Adverse effects related to vibration are most often associated with "high impact" activities, such as pile driving, that may impact the ground and create vibrational waves that radiate outward and downward, away from the point of impact. Project Activities include high impact activities that could result in vibrational waves. Although it is unlikely that any high impact activities would be close to human receptors and because this Project authorizes activities throughout the state, this analysis assumes that it is possible that pile driving could occur within range of a sensitive receptor. While temporary and short-lived, sensitive receptors could be exposed to excessive groundborne vibration or noise levels during Project Activities. Therefore, Project Activity pile-driving could generate groundborne vibration and sound levels that could have a significant impact.

Mitigation

Implementation of Mitigation Measure NOI-1 would ensure Project Activities adhere to noise standards in applicable general plans, local noise ordinances, and other agency regulations, which would likely include limitations to the duration, frequency, and timing of groundborne vibration and sound generation.

Significance after Mitigation

Therefore, impacts to groundborne vibration or groundborne noise levels would be **less-than-significant with mitigation**.

Impact NOI-3: For projects located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would projects permitted under the General Order expose people residing or working in the project area to excessive noise levels? (Less-than-Significant with Mitigation)

Project Activities could be implemented within an area covered under an adopted airport land use plan. Depending on the proximity of Project Activities to an existing airport, there is potential for construction workers to be exposed to noise. However, the dominant noise source for personnel working on Project Activities near airports would be their own equipment. Therefore, Project Activities within an airport land use plan or within two miles of a public or public use airport could create excessive noise for people residing or working within the area.

Mitigation

Implementation of Mitigation Measure NOI-1 would ensure Project Activities adhere to noise standards in the applicable general plan, local noise ordinances, and other agency regulations, which would likely include limitations to the duration, frequency, and timing, which would likely include limitations to the duration, frequency, and timing of noise generation.

Significance After Mitigation

As a result, impacts for Project Activities within an airport land use plan or within two miles of a public or public use airport would be **less-than-significant with mitigation**.

3.14 POPULATION AND HOUSING

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X

3.14.1 Introduction

This section discusses population and housing resources in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, Project Activities will result with no impacts to unplanned population growth, and displacement of housing.

3.14.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to Population and Housing in the Project Area.

Federal

Fair Housing Act

The Fair Housing Act (42 US Code § 3601 et seq.) affects municipal land use throughout the state of California. The Fair Housing Act prohibits discrimination by direct providers of housing, including landlords, real estate companies, municipalities, banks or other lending institutions, and homeowner's insurance companies. The Fair Housing Act prohibits discrimination by race or color, religion, sex, national origin, familial status, or disability.

State

California Government Code Section 65302 requires that each city and county adopt a land use and housing element as part of its general plan. Section 65302(a) outlines land use elements requirements and states that it must include the proposed general distribution, general location, and extent of land uses for housing, business, industry, open space, agriculture, natural resources, greenways as defined in Section 816.52 of the Civil Code recreation, enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. Section 65302(b) outlines requirements for the housing element, which include the following:

a) An assessment of housing needs and an inventory of resources and constraints relevant to meeting those needs.
b) A statement of the community's goals, quantified objectives, and policies relative to the maintenance, preservation, improvement, and development of housing.
c) A program with a schedule of actions during the planning period that the local government will undertake to implement the housing element's policies and achieve the element's goals and objectives.

California Department of Housing and Community Development

The State Tenement House Act of 1909 was California's first housing regulation. The law applied only to apartment houses and hotels in cities. Later laws such as the State Dwelling Act and the State Housing Law (formerly known as the State Housing Act) were applied to a wider range of housing types and eventually led to the formation of the California Department of Housing and Community Development in 1965. Housing and Community Development develops and enforces statewide minimum construction regulations for all types of housing and is responsible for promoting and maintaining adequate housing and decent living environments for all of California's citizens (California Department of Housing and Community Development 2019).

Senate Bill 330—Housing Crisis Act (2019)

The Housing Crisis Act of 2019 accelerates the approval process for housing projects, curbs local government's ability to downzone, limits fee increases for housing applicants, and executes accountability provisions, among other actions. The act would be in effect until 2025.

Senate Bill 8—Housing Crisis Act of 2019 (2021)

Senate Bill 8 extends the provisions of the Housing Crisis Act of 2019 through 2030.

Senate Bill 9—California Housing Opportunity and More Efficiency Act (2021)

Senate Bill 9 gives homeowners tools to split single-family lots into two lots and place up to two units in each newly created lot, among other measures.

Senate Bill 10—Planning and Zoning: Housing Development and Density (2021)
Senate Bill 10 launches voluntary, stream-lined processes for cities to zone multi-unit housing to make it easier and faster to construct housing. Senate Bill 10 enables local governments to zone up to ten homes per parcel in transit-rich areas or urban infill sites.

Regional and Local
The Project Area encompasses the counties and cities of California. Each county and city have local regulations and a general plan containing goals and policies for housing and population that promote investments and land use decisions to address future growth and existing needs.

3.14.3 Environmental Setting

Population and Population Growth
Up until recently, the state of California's population has steadily increased since its admittance to the Union in 1850. At the beginning of 2022, the California Department of Finance (2022a) estimated California's population totaled 39,185,605. From January 1, 2021, to January 1, 2022, its estimated California's population decreased by 117,552, (-0.003%) (2022a). From April 1, 2020, to January 1, 2021, it is estimated California's population decreased by 235,066 (-0.006%). Table 3.14-1 lists California's 10 largest counties and their percentage of the state's population.

Table 3.14-1: California Counties with the Highest Population, 2022

County	Population Estimate	Percent of State
Los Angeles	9,861,224	25.17
San Diego	3,287,306	8.39
Orange	3,162,245	8.07
Riverside	2,435,525	6.22
San Bernardino	2,187,665	5.58
Santa Clara	1,894,783	4.84
Alameda	1,651,979	4.22
Sacramento	1,576,618	4.02
Contra Costa	1,156,555	2.95
Fresno	1,011,273	2.58

Source: California Department of Finance, 2022a

Housing
Housing distribution and household conditions are expected to evolve and change as the population fluctuates. Despite the recent slight decrease in California's population, the California Department of Finance estimated the number of housing units available between 2018 (14,325,000 units) and 2020 (14,392,140) increased by 67,140, a 0.004% increase (California Department of Finance 2019 and 2022b). Ranked by the counties with the greatest number of housing units, its estimated Los Angeles contains

3,591,981 with 4.8% vacancy, San Diego contains 1,228,505 with 5.7% vacancy, Orange County contains 1,129,785 with 4.9% vacancy, Riverside County contains 848,549 with 10.0% vacancy, and San Bernardino County contains 731,899 with 8.8% vacancy. The counties with the greatest average number of persons per household in California is estimated to be Imperial at 3.30, Merced and Tulare Counties with 3.29, and San Benito and Madera Counties with 3.27.

3.14.4 Impact Analysis

Methods of Analysis

Project Activity impacts to population and housing were qualitatively analyzed based on how the actions typically impact existing public resources. The impact analysis focuses on evaluating potential impacts on population and housing with the issuance of the General Order. The analysis assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to population and housing resources would be considered significant if projects permitted under the General Order would:

1. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Impacts and Mitigation Measures

The General Order would authorize only system hardening and maintenance activities for existing electricity infrastructure. Project Activities do not include expansion of electricity infrastructure that could indirectly induce population growth. Therefore, Project Activities will result in **no impacts** to population and housing.

3.15 PUBLIC SERVICES

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	-	-	-	-
i) Fire protection?				X
ii) Police protection?				X
iii) Schools?				X
iv) Parks?				X
v) Other public facilities?				X

3.15.1 Introduction

This section discusses public services in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, Project Activities will result in no impacts to government facilities and response times for any public services.

3.15.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to public services in the Project Area.

Federal

Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972, better known as the CWA, established the institutional structure for the USEPA to regulate discharges of pollutants into waters of the US, establish water quality standards, conduct planning studies, and fund grant projects. Congress has amended the CWA several times since 1972.

For a more detailed discussion of the CWA, see Section 3.4, Biological Resources, and Section 3.10, Hydrology and Water Quality.

Resource Conservation and Recovery Act

Subtitle D of the Resource Conservation and Recovery Act (42 US Code 6901 et seq.) contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills. USEPA's waste management regulations are listed in Volume 40, Parts 239–282 of the Code of Federal Regulations. Resource Conservation and Recovery Act Subtitle D is implemented by Title 27 of the PRC, approved by the USEPA.

Safe Drinking Water Act

The Safe Drinking Water Act authorizes the USEPA to establish minimum standards to protect tap water and underground sources of drinking water. It also requires all owners and operators of public water systems to comply with health-related standards.

Under the Safe Drinking Water Act, state governments can be authorized to implement rules established by USEPA.

State

Assembly Bill 341

To reduce greenhouse gas emissions from disposal of recyclables in landfills, AB 341 requires local jurisdictions to implement commercial solid waste recycling programs. Businesses that generate four cubic yards or more of solid waste per week or multifamily dwellings of five units or more must arrange for recycling services. To comply with AB 341, jurisdictions' commercial recycling programs must include education, outreach, and monitoring of commercial waste generators and must report on the process to CalRecycle. Jurisdictions may enact mandatory commercial recycling ordinances to outline how the goals of AB 341 will be reached.

For businesses to comply with AB 341, they must arrange for collection of recyclables by self-hauling, subscribing to a franchised hauler for collection, or subscribing to a recycling service that may include mixed waste processing that yields diversion results comparable to source separation (CalRecycle 2022).

Assembly Bill 1220

California Department of Resources Recycling and Recovery (CalRecycle) and the State Water Board completed parallel rulemaking as a result of AB 1220 (Chapter 656, Statutes of 1993). Assembly Bill 1220 required clarification of the roles and responsibilities of CalRecycle and the State Water Board, the Regional Water Board, and CalRecycle's local enforcement agencies in regulating solid waste disposal sites. The approved regulations in California Code of Regulations Title 27 combine the prior disposal site/landfill regulations of CalRecycle and the State Water Board, which were maintained in California Code of Regulations Title 14 and California Code of Regulations Title 23, Chapter 15 (which contains requirements for disposal of hazardous waste).

The purpose of CalRecycle's regulatory standards is to protect public health and safety and the environment. The regulations apply to active and inactive disposal sites, including facilities or equipment used there. These standards clarify that the local enforcement agency has primary responsibility for enforcing the state's minimum standards, working in cooperation with the Regional Water Board or other oversight agencies.

The California Code of Regulations Title 27 regulations also include the following operating criteria and requirements for landfills and disposal sites:

a) Sufficient materials to cover waste to prevent a threat to human health and the environment;
b) Proper handling of waste and the equipment needs of solid waste facilities;
c) Control of activities on-site;
d) Control of landfill gas that is made from the decomposition of wastes on-site; and
e) Proper operation of the site to protect the site from fire threats.

Assembly Bill 1826

Assembly Bill 1826 reduces greenhouse gas emissions generated from the disposal of organic materials in landfills. Depending on the amount of solid waste generated per week, the bill requires certain businesses to recycle their organic waste with required recycling services. Similar to AB 341, jurisdictions must implement an organic waste recycling program that includes the education, outreach, and monitoring of businesses that must comply. Organic waste refers to food waste, green waste, landscaping and pruning waste, nonhazardous wood waste, and food-soiled paper that is mixed with food waste.

California Public Utilities Commission

The CPUC regulates privately owned water, energy, and telecommunications utilities. The commission is also responsible for safety enforcement, which includes investigating accidents occurring on the property of any public utility. The CPUC's Division of Ratepayer Advocates has a statutory mandate to obtain the lowest possible utility rates for service consistent with safe and reliable service levels.

Essential Services Building Seismic Safety Act

The Essential Services Building Seismic Safety Act of 1986 (California Health and Safety Code, Sections 16000–16022) applies to fire stations, police stations, and other public facilities that respond to emergencies. This law is intended to ensure that essential-services buildings can continue to serve the public after a disaster and are designed and constructed to minimize fire hazards. In addition, these buildings and the nonstructural components vital to their operation must be able to resist, insofar as practical, the forces created by earthquakes, gravity, fire, and wind.

Integrated Waste Management Act (Assembly Bill 939)

The regulations affecting solid waste disposal in California can be found in Title 14 of the California PRC, the Integrated Waste Management Act. Originally enacted in 1989 through AB 939, the law is designed to increase the life of landfills by requiring diversion of solid waste from landfills in the state and conservation of other resources through increased recycling programs and incentives.

Assembly Bill 939 requires counties to prepare integrated waste management plans to implement landfill diversion goals and requires cities and counties to prepare and adopt source reduction and recycling elements. These elements must establish a program for managing solid waste generated within the cities or county's jurisdiction. Each source reduction and recycling element must include, but is not limited to, all the following components for solid waste generated within the plan's jurisdictional area:

a) Waste characterization
b) Source reduction
c) Recycling
d) Composting
e) Solid waste facility capacity
f) Education and public information
g) Funding
h) Special waste

Source Reduction and Recycling Element programs are designed to achieve landfill diversion goals by encouraging recycling in the manufacture, purchase, and use of recycled products. Assembly Bill 939 also requires California cities to implement plans designed to divert the total solid waste generated within each jurisdiction by 50 percent based on a base year of 2000. The diversion rate is adjusted annually for population and economic growth when calculating the percentage achieved in a particular jurisdiction.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) established the Water Boards as the principal state agencies with primary responsibility for the coordination and control of water quality (Water Code Section 13001), including the enforcement of applicable laws and regulations. In addition to overseeing the efforts of

the Regional Water Boards, the State Water Board is responsible for allocating surface water rights.

For a more detailed discussion of the Porter-Cologne Water Quality Control Act, see Section 3.4, Biological Resources, and Section 3.10, Hydrology and Water Quality.

Public Resources Code Section 41780

The California Legislature set a policy goal that at least 75 percent of solid waste generated in the state would be source reduced, recycled, or composted commencing by January 1, 2020. A 50 percent diversion rate will be enforced for local jurisdictions.

State Water Board's Division of Drinking Water

The State Water Board's Division of Drinking Water is responsible for regulating public water systems; oversees water recycling projects; permits water treatment devices; supports and promotes water system security; and performs a number of other functions. The State Water Board's Division of Drinking Water consists of three branches: The Northern California Field Operations Branch, the Southern California Field Operations Branch, and the Program Management Branch. The Northern California and Southern California Field Operations Branches are responsible for the enforcement of the federal and California Safe Drinking Water Acts and regulatory oversight of public water systems within California. In this undertaking, staff perform field inspections, issue operating permits, review plans and specifications for new facilities, take enforcement actions for non-compliance with laws and regulations, review water quality monitoring results, and support and promote water system security. The Field Operations Branches also participate in funding infrastructure improvements, conducting source water assessments, overseeing water recycling projects, and promoting public water systems in drought preparation and water conservation.

Uniform Fire Code

The Uniform Fire Code provides regulations governing the construction, maintenance, and use of buildings. The code addresses fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, storage and use of hazardous materials, provisions for protecting and assisting fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Uniform Fire Code contains specialized technical regulations related to fire and life safety. The code provides sprinkler system standards and requirements for different types of buildings, including hospitals.

Regional and Local

Policies and regulations governing utilities and public services are found in each county's adopted general plan and can vary from county to county.

3.15.3 Environmental Setting

This section broadly discusses the public services that occur throughout the Project Area. The public services vary depending on a location's population, economy, and proximity to other cities and infrastructure. Public services are provided by counties, cities, or community services/special districts, and in some cases by private entities under contract with local governments.

Law Enforcement

Unincorporated areas of the state are generally served by county sheriff's departments, which typically operate county jails, coroner's offices, and by the Governor's Office of Emergency Services. Incorporated cities have their own police departments that provide law enforcement within the city limits, generally including responses to calls, investigations, surveillance, and routine patrols. The California Highway Patrol, the primary law enforcement agency for state highways and roads, provides law enforcement, traffic school, accident investigations, and management of hazardous materials spills. The CDFW is responsible for enforcing laws governing hunting and fishing.

Fire Protection and Emergency Medical Services

Fire Protection

Emergency medical rescue and fire protection services are provided by cities, counties, and special districts. Some agencies provide advanced life support via fire department ambulances, paramedic squads, and/or the placement of firefighters/paramedics on fire engines. Fire districts respond to an abundance of calls for medical emergencies and fire. Multiple fire districts and departments serve counties, cities, and communities in California. These districts and departments are located strategically to fulfill targeted response times. These response goals are affected by geographic distance (shorter in urban locations, longer in rural areas), circulation, development, and population growth.

Emergency Medical Services

Emergency medical services in California include emergency dispatch (911), ambulances, and hospitals and other medical care services.

Ambulances

Ambulance services are provided by local fire districts or contracted through private companies. Private ambulance companies must obtain operating permits to provide advanced life support and transportation services. In some cases, fire departments are equipped to provide advanced life support until ambulance services arrive, but they mostly provide basic life support and other first responder services.

Hospitals and Medical Care Services

Numerous hospitals and medical care services in the Project Area offer emergency services, social services, radiation therapy, comprehensive outpatient rehabilitation services, home health care services, and many others.

Other Public Facilities

Numerous public-school districts operate in the Project Area, serving students from preschool through high school. These districts are typically found in more densely populated areas. Public libraries are typically funded by local property taxes, state funds, library fines and fees, grants, and donations. County libraries generally provide additional community services such as internet access, mobile book services, children's programs, and adult literacy programs.

According to 42 US Code 5122, a "public facility" is defined as a facility owned by the state or local government:

a) A flood control, navigation, irrigation, reclamation, public power, sewage treatment and collection, water supply and distribution, watershed development, or airport facility
b) A non-federal-aid street, road, or highway
c) Any other public building, structure, or system, including those used for educational, recreational, or cultural purposes
d) Any park

The General Order would include the use of such public facilities such as access and haul routes consisting of public roads, nature preserves, and other public facilities found throughout the state.

3.15.4 Impact Analysis

Methods of Analysis

Project Activity impacts to public services were analyzed qualitatively using best professional judgment. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities related to the proposed project. The analysis assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

The thresholds for significant impacts to public services were derived from Appendix G of the CEQA Guidelines. Impacts to Public Services would be significant if projects permitted under the General Order would:

1. Result in substantial adverse physical impacts associated with new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
    a. Fire protection
    b. Police protection
    c. Schools
    d. Parks
    e. Other public facilities

Impacts and Mitigation Measures

The General Order authorizes Project Activities related to electric utility infrastructure. system hardening for electric utility infrastructure should not adversely affect any services related to fire protection, police protection, schools, parks, or other public facilities. To the extent that fire protection is affected, Project Activities should have a positive effect on fire protection because they will reduce the risk of uncontrolled megafires. To the extent that electric utility infrastructure may be considered other public facilities, Project Activities should have a positive effect on service as system hardening will make electricity services more reliable and help to reduce any interruptions in service due to wildfire. Therefore, issuance of this General Order will result in **no impacts** to public services.

3.16 RECREATION

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
2) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

3.16.1 Introduction

This section discusses recreation resources in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, Project Activities will result with no impacts to existing neighborhoods and recreational facilities.

3.16.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to recreation in the Project Area.

Federal

Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972, better known as the CWA, established the institutional structure for the USEPA to regulate discharges of pollutants into waters of the US, establish water quality standards, conduct planning studies, and fund grant projects. Congress has amended the CWA several times since 1972.

For a more detailed discussion of the CWA, see Section 3.4, Biological Resources, and Section 3.10, Hydrology and Water Quality.

Federal Land and Water Conservation Fund Act

The Land and Water Conservation Fund, created by Congress in 1964, provides money to federal, state, and local governments to purchase land, water, and wetlands for the benefit of all Americans. Lands and waters purchased through the Land and Water Conservation Fund do all of the following:

a) Provide recreational opportunities
b) Provide clean water
c) Preserve wildlife habitat
d) Enhance scenic vistas
e) Protect archaeological and historical sites
f) Maintain the pristine nature of wilderness areas

Federal Water Project Recreation Act

Under the Federal Water Project Recreation Act (US Code Title 16, Sections 460[L][12] through 460[L][21]), recreation, fish, and wildlife enhancement should be given full consideration during federal water development projects if non-federal public bodies agree to the following:

a) Bear no less than half the separable costs allocated for recreational purposes or 25 percent of the cost for fish and wildlife enhancement.
b) Administer project land and water areas devoted to these purposes.
c) Bear all costs of operation, maintenance, and replacement.

Where federal lands or authorized federal programs for fish and wildlife conservation are involved, cost-sharing is not required.

The Federal Water Project Recreation Act also authorizes using federal water project funds for land acquisition to establish refuges for migratory waterfowl when recommended by the Secretary of the Interior. The law further authorizes the Secretary to provide facilities for outdoor recreation and fish and wildlife at all reservoirs under his control, except within national wildlife refuges.

State

California Department of Parks and Recreation

The mission of the California Department of Parks and Recreation is to provide the public the health, inspiration, and education by helping to preserve the state's extraordinary biological diversity, protects its most valued natural and cultural resources, and create opportunities for high-quality outdoor recreation. In addition to the lands, it directly owns, the California Department of Parks and Recreation has certain jurisdiction over granted or ungranted tidelands or submerged lands abutting State Park System lands (PRC Section 5003.5).

California Division of Boating and Waterways

The California Division of Boating and Waterways, part of the California Department of Parks and Recreation, has a mission to provide safe and convenient public access to California's waterways and leadership in promoting the public's right to safe, enjoyable, and environmentally sound recreational boating. The California Division of Boating and Waterways endorses boating safety and education, assists local boating law enforcement agencies, ensures uniformity in boating regulations, and licenses boat operators and brokers. The division is also responsible for reviewing, updating, and adopting state boating regulations to reflect changes in federal and state boating laws, and planning and designing state boating facilities. The California Division of Boating and Waterways has been the lead agency for controlling water hyacinth (*Eichhornia crassipes*) (since 1982) and Brazilian water weed (*Egeria densa*) (since 1997) (California Department of Parks and Recreation 2018).

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) established the State Water Board and the Regional Water Boards as the principal state agencies with primary responsibility for the coordination and control of water quality (Water Code Section 13001), including the enforcement of applicable laws and regulations. In addition to overseeing the efforts of the Regional Water Boards, the State Water Board is responsible for allocating surface water rights.

For a more detailed discussion of the Porter-Cologne Water Quality Control Act, see Section 3.4, Biological Resources, and Section 3.10, Hydrology and Water Quality.

State Lands Commission

The California State Lands Commission was established in 1938 and provides stewardship of the lands and waterways of California (2022). The State of California owns nearly 4 million acres of "sovereign lands," which include the beds of navigable rivers, lakes, and streams, tidal waterways, and tidelands up to the ordinary high-water mark and submerged lands along the coastline extending from the shoreline out to 3 miles offshore. The State Lands Commission may lease sovereign lands for any public trust purpose, including recreation, navigation, fisheries, commerce, and open space. For instance, a public or private entity must lease sites for marinas and recreational piers that fall within sovereign lands. In addition, the State Lands Commission issues permits for dredging lands that fall under its jurisdiction.

Regional and Local

The Project Area encompasses the counties and all cities of California. Each county and city have local regulations and a general plan with unique goals and policies that preserve and guide development of recreation and recreational resources within their local jurisdictions and may identify mitigation measures to protect these resources.

3.16.3 Environmental Setting

This section describes existing recreational resources and opportunities in the Project Area. Given its size and range of landscapes and water features, the Project Area contains a wide variety of recreation resources and opportunities. For instance, snowmelt from the Sierra Nevada and other mountain ranges feeds the network of rivers throughout the state, which in turn may spill into floodways. Although the Project Area encompasses all of California, projects permitted under the General Order would occur mainly in areas of aquatic, riparian, and floodplain habitats.

Aquatic Features

Rivers and Streams

River and stream recreation facilities in the Project Area vary by location, property ownership, and ease of access. In the foothills and mountains, whitewater kayak put-in and take-out locations are frequently available on an opportunity basis along public ROW at crossings and often lack improved facilities. National, state, and local parks have been developed at many riverside and stream locations and generally provide improved parking, picnicking, boat launching, sanitation, drinking water facilities, and sometimes camping and developed trails. A few examples include Bidwell–Sacramento River State Park and Woodson Bridge State Park along the Sacramento River, Burton Creek State Park on Burton Creek, and the Merced River within Yosemite National Park.

Private marinas, launch ramps, and campgrounds can also be found along rivers throughout the Project Area. Rivers at higher elevations with steeper profiles and often-uncontrolled springtime runoff provide a wide range of whitewater kayak recreation opportunities for individuals and commercial rafters and kayakers.

In addition, the corridors of some rivers and adjacent land areas have been designated as open space parkways, often expanding the value of river corridors for recreation; the American River Parkway and San Joaquin River Parkway are examples. These river parkways are unique, however, in that many river corridors, banks, and adjacent habitats are under private ownership. The American River Parkway extends more than 25 miles from the confluence with the Sacramento River to recreation lands at Folsom Lake State Recreation Area, which in turn connects to Auburn State Recreation Area, effectively creating a public recreation corridor that extends for approximately 50 miles.

Lakes and Ponds

More than 9,000 lakes, reservoirs, and countless ponds are scattered throughout the Project Area. Lake and pond recreation facilities vary by location, property ownership, and ease of access. Most of the lakes in California are US Navigable Waterways, where areas up to 2 feet past the high-tide line are not available for private ownership as part of the Federal Navigation Act of 1892.

Ponds in California often act as local swimming holes or offer aesthetic views containing a wide variety of wildlife and aquatic species. Lakes are typically surrounded by recreational activities such as campgrounds, cabins, resorts, parking, picnicking, boat launching, sanitation, drinking water facilities, and hiking trails. Some of the state's largest lakes include the Salton Sea in Southern California, Lake Tahoe in Northern California, Goose Lake located along the border of California and Oregon, Mono Lake in central California, and Honey Lake in northeastern California.

Ocean

The Pacific Ocean is located along California's western border, which results in the state having approximately 3,427 miles of shoreline (National Oceanic Atmospheric Administration 1975). Shoreline is defined as outer coast including offshore islands, sounds, bays, rivers, and creeks where tidal waters narrow to a width of 100 feet.

Recreational activities along the coast vary by location, property ownership, and ease of access. A majority of the coastline provides access to beachfront locations to walk along the beach, swim, fish, canoe, surf, and participate in aquatic activities. Tide pools located along the shore's intertidal zones offer visitors a chance to see small fish, eels, crabs, and sea anemones, among the diversity of tidepool creatures. Some of the most popular beaches in the state include La Jolla Shores Beach, Santa Monica State Beach, Carmel City Beach, Moonstone Beach, San Gregorio State Beach, and Salt Creek Beach. Along with public access spots, California has designated marine protected areas scattered along its coastline that allow varied amounts of activities and protections (e.g., marine reserves, marine conservation areas, and marine parks) as part of the Marine Life Protection Act passed in 1999 (California Department of Fish and Wildlife 2022).

Amusement parks and piers are common tourist attractions located along the state's shoreline. They offer waterfront seafood restaurants, shopping, attractions, and bay views, along with wildlife viewing for seas lions, sea otters, whales, and other marine wildlife. Some popular attractions along California's coast include Pier 39 in San Francisco, Alcatraz Island in San Francisco Bay, the Santa Cruz Beach Boardwalk, Hearst Castle located in the Los Padres National Forest, and Carmel-by-the-Sea.

Wetlands

California has approximately 454,000 acres of nonagricultural wetlands, with over 91 percent of its historical wetlands being developed and/or drained for primarily agricultural purposes (US Geologic Survey 2022). Wetlands provide countless recreational activities such as botanizing, hiking, boating, hunting, fishing, trapping, birdwatching, and wildlife photography. Wetlands often co-occur with and are integral to the health and recreational value of rivers and streams, lakes and ponds, and the ocean. Some wetlands in California include the Sacramento–San Joaquin Delta, Laguna Wetlands Preserve, Bolsa Chica Ecological Reserve, Los Angeles River, and Ballona Wetlands.

Wildlife-Orientated Recreation

Hunting, wildlife viewing, and birdwatching, compose wildlife-oriented recreation opportunities throughout the Project Area. Many wildlife areas and nature observation areas are operated in partnership with other state or local agencies. Types of wildlife areas and hunting facilities include national wildlife refuges, state wildlife areas, private hunting clubs, and private nonprofit wildlife preserves. Popular seasonal recreational activities include waterfowl and pheasant hunting, wildlife viewing, birdwatching, and fishing. Seasonal hunting on private lands requires permission from the landowner, whereas hunting and duck clubs are open only to members and their guests. In the Central Valley, areas along river floodplains have been established as wildlife refuges, like Gray Lodge Wildlife Area. Sequoia and Kings Canyon National Parks offer wildlife viewing opportunities for animals such as coyotes, badgers, black bears, sheep, deer, opossums, wolverines, beavers, frogs, muskrats, mountain lions, snakes, foxes, turtles, birds, and fish. These areas provide opportunities for wildlife viewing, fishing, and hunting.

Fishing

The aquatic and riparian habitats in the Project Area are home to a variety of fish species desirable for recreational fishing. Examples of non-commercial fishing activities include bait fishing, bait casting/spin fishing, and fly fishing, which can occur from the shore/bank, wading, or watercraft. Shore/bank and wading fishing can include fishing from piers, levees, and waterway banks. Fly fishing can be done from both land or watercraft, or anglers can stand in the waterways. Fishing opportunities exist throughout the Project Area, along the coast, valley, and mountains.

Deserts

California contains three main deserts: the Mojave Desert near the Tehachapi Mountains, the San Gabriel and San Bernardino Mountains, and California's borders with Arizona and Nevada; the Colorado Desert in the southeast corner of the state; and the Great Basin Desert, which is located to the east of the Sierra Nevada range and extends through to Nevada. Deserts provide a wide range of landscapes such as mountains, canyons, sand dunes, and dry cracked earth. Desert recreational activities include hiking, rock climbing, bouldering, sightseeing, and off-roading. Another desert recreational location includes playas (e.g., the Death Valley Playa), which are evaporated lakes whose formation depends on climate and location. Commonly in deserts, ephemeral stream flows briefly each season and are fed by rainfall. When these arid streams are dry, they become popular spots for camping and both legal and illegal off-highway motor vehicles. Playas are also a type of ephemeral water.

Roadways

Caltrans manages the State Scenic Highway Program and assists local government agencies, community organizations, and citizens with the process of officially designating scenic highways. In some cases, scenic highways may be located adjacent

to aquatic and riparian habitats where Project Activities could occur. Visitors may drive along these scenic roadways to enjoy their aesthetic attributes, such as scenic vistas of waterways and farmland dotted with historic sites. For example, State Route 1 crosses the Carmel River, which offers aesthetic value. Another example is State Route 89, which crosses the Sierra Nevada and is a designated scenic highway between the El Dorado–Placer County line to a point 3.2 miles west of US Highway 395.

Parks

Parks provide outdoor areas for gathering and recreation and are generally developed and maintained by state or local governments. They include local, small parks and larger parks such as state recreation areas. California has approximately 300 state parks and many more local parks. The National Park System operates a large and diverse group of parks, monuments, and recreation areas including nine national parks, 10 national monuments, three national recreation areas, 850 federally recognized areas under the National Landscape Conservation System, and four National Marine Sanctuaries. In addition, California includes the Point Reyes National Seashore and the Mojave National Preserve. Park amenities may include restrooms, picnic tables, fishing access, playgrounds, boat launches, trails, and historic site interpretation.

Hiking, Biking, and Trail Use

Trails and paths are often located in areas along the edge of waterways, throughout foothills and mountain ranges, and can be found in parks or wildlife areas, or along shorelines in urban areas. For example, the cities of Sacramento and West Sacramento have public trails along the Sacramento River; trails along the San Joaquin River can be found in the cities of Antioch, Pittsburg, Oakley, and Bay Point; and bike and jogging paths in the city of Stockton occur along the Calaveras River.

Camping

Tent camping and recreational vehicle sites are located throughout the Project Area. For example, numerous campsites are located along the North Yuba River and State Route 49. Campsites may offer recreational amenities that provide a variety of activities during vacations or visits. Examples of this type of multi-use facility include recreational vehicle and/or tent camping sites, picnic and barbecue facilities, cafés, fishing, and water access. Camping is also offered in the national parks such as Redwood National Park where tent campgrounds, recreational vehicle campgrounds, and cabins are available.

Historic Sites

The National Register of Historic Places is the official list of the nation’s historic places, structures, objects, sites, and districts that have been deemed worthy of preservation because of their architecture, archaeology, engineering, and culture (i.e., historical significance). Designated California historical landmarks are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military,

political, architectural, economic, scientific or technical, religious, experimental, or other value. National historic places or California historical landmarks may be located near waterways where there are aquatic or riparian habitats. For example, Sutter's Landing (California Historical Landmark No. 530) is part of Marshall Gold Discovery State Historic Park and located along the South Fork of the American River in Coloma.

3.16.4 Impact Analysis

Methods of Analysis

Project Activity impacts to recreation resources were qualitatively analyzed based on how the actions typically impact existing recreation resources. The impact analysis focuses on evaluating potential impacts to recreation with the issuance of the General Order. The analysis assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to recreation resources would be considered significant if projects permitted under the General Order would:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment directly or indirectly disrupt recreational activities within designated recreation areas.

Impact and Mitigation Measures

The General Order would authorize projects related to wildfire mitigation and operations and maintenance of Utility Service infrastructure. Project Activities will not include recreational facilities, increase use of neighborhood and regional parks and other recreational facilities, or cause expansion of recreation facilities. Therefore, Project Activities will result in **no impacts** to recreation.

3.17 TRANSPORTATION

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
2) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			X	
3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
4) Result in inadequate emergency access?				X

3.17.1 Introduction

This section discusses transportation resources in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, potential impacts include acquiring proper permits and temporary traffic delays.

3.17.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to transportation in the Project Area.

Federal

Federal Highway Administration

The Federal Highway Administration is an agency of the US Department of Transportation that supports the construction and preservation of the nation's highways, tunnels, and bridges. Federal Highway Administration also researches methods to enhance highway safety and efficiency. The Federal Highway Administration provides

financial and technical assistance to state and local governments to provide the resources to develop and maintain safe and efficient transportation. The Federal Highway Administration provides regulations and guidance for standard work requirements related to work zone safety, mobility, and temporary traffic control device implementation.

Transportation of Hazardous Materials

The US Department of Transportation and the Caltrans are the administrating agencies for the following regulations:

a) Title 49 Code of Federal Regulations Parts 171–177 govern the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
b) 49 Code of Federal Regulations 350–399 and Appendices A through G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.
c) 49 Code of Federal Regulations 397.9, the Hazardous Materials Transportation Act of 1974, directs the US Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

State

Streets and Highways Code

Caltrans owns the State Routes ROW, including any on- and off-ramps. The use of California state highways for purposes other than normal transportation may require written notification or an encroachment permit from Caltrans. California Streets and Highways Code Section 660 allows Caltrans to issue encroachment permits authorizing activities within, under, or over state highway ROW. Caltrans reviews all requests from utility companies that plan to conduct activities within state highway ROW. Caltrans encroachment permits may include conditions or restrictions on the timeframe for construction activities performed within or above roadways that are in Caltrans jurisdiction.

The Streets and Highways Code also contains regulations intended to protect the condition of State Routes and other roadways. The code requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways. Sections 700 through 711 contain provisions that are specific to utility providers. Additionally, the California Streets and Highways Code outlines directions for cooperation with local agencies, guidelines for permits, and general provisions relating to highways in Caltrans' jurisdiction.

Local

General Plans

California law requires counties and cities to develop comprehensive, long-term general plans to guide their land use decision making and physical development. Elements, or chapters, in a general plan relate directly or indirectly to transportation. The circulation element is directly related and includes a strategy addressing infrastructure needs for the circulation of people, goods, energy, water, sewage, storm drainage, and communications. By statute, the circulation element must correlate directly with the land use element, but also has direct relationships with other elements. Creating accessible, connected, and complete circulation networks and ensuring access to opportunities within a community requires coordination between land use and circulation planning. The Sustainable Communities and Climate Protection Act of 2008 supports the state's climate action goals to reduce greenhouse gas emissions through coordinated transportation and land use planning with the goal of making communities more sustainable for the long term. In addition to identifying transportation routes, the circulation element must identify the location and necessity of public utilities and facilities. General plans can contain additional elements on topics of concern to the local community; some jurisdictions have adopted transportation and bicycle elements. Some communities also adopt ordinances or municipal code provisions in support of specific transportation-related goals.

3.17.3 Environmental Setting

Roadways

California's roads are categorized into the groups listed below:

a) *Interstates*: arterial roads that provide the highest level of mobility and speeds over the longest uninterrupted range, limited access, typically posted speeds of 55 to 75 miles per hour.
b) *Other Freeways and Expressways*: high-mobility roads with limited on- and off-access points (e.g., ramp locations or at-grade intersections) and whose directional travel lanes are generally separated by a physical barrier.
c) *Other Principal Arterials*: High-mobility, limited-access roads that typically have four lanes or more and posted speeds of 50 to 70 miles per hour. This roadway type is classified as either urban or rural (Federal Highway Administration 2017).
d) Minor Arterials: Moderate-mobility, limited-access roads that typically have two or three lanes and include turn lanes to benefit through traffic.
e) *Collectors:* Moderate-mobility, moderate-access roads that connect local roads to arterials with few businesses, and that typically have posted speed limits between 35 and 55 miles per hour.
f) *Local Roads and Streets:* High-access, limited-mobility roads that emphasize access to abutting land and typically have posted speed limits between 20 and 45 miles per hour.
    i. Urban classification:

1. Serves major activity centers; has the highest traffic volume corridors and longest trip demands.
2. On minimum mileage, carries a high proportion of total urban travel.
3. Provides interconnection and continuity for major rural corridors to accommodate transportation through, to, and from urban areas.
4. Serves demand for travel between central business districts and outlying residential areas.

ii. Rural classification:

1. Connects all or a majority of urbanized areas and urban clusters of populations 25,000 or more.
2. Provides an integrated network of continuous routes.

Interstate highways were designed to be high-speed interregional connectors and include sections of the National Highway System. Local roads provide the greatest amount of access to adjacent land through driveways and other roadways, and therefore tend to be smaller. Arterials emphasize a high level of traffic flow for through movement, and as a result, have a higher capacity and speed with little accessibility to adjacent land. Collector roads provide a combination of both functions.

Interstate highways and state routes are typically labeled as intercity highways or principal arterials. In California, interstate highways contain a larger percentage of vehicular traffic than local arterials and roadways, as shown in Table 3.17-1 (California Department of Transportation 2019). State routes connect centers of commerce, industry, agriculture, and mineral wealth for communities and regions of the state (California Streets and Highways Code, Division 1, Chapter 2).

Federal highways (i.e., interstate highway system and freeways) and state highways (i.e., interstate highway system, state highways, and freeways) are maintained by Caltrans. Federal and state highways are generally classified according to the Federal Highway Administration’s Functional Classification Guidelines based on the designated level of mobility and land access. Designated truck routes are also located throughout the state and are maintained and located primarily on major federal, state, county highways, and major local arterials. These routes provide alternative routes for large trucks from mainline routes that are ill-suited for large-truck travel because of obstacles (low-clearance bridges, sharp turns, or steep grades) or conditions that could be unsafe for smaller vehicles.

Table 3.17-1. Maintained Miles, Lane Miles, and Annual Vehicle Miles of Travel by Functional Classification in California 2018.

Functional Classification	Maintained Miles	Lane Miles	Annual Vehicle Miles of Travel (in Millions)
Interstate	2,455.94	15,299.25	92,010.08
Principal Arterial (other freeways and expressways)	1,919.03	10,996.64	67,979.73
Principal Arterial (other)	9,959.67	35,116.22	64,750.34
Minor Arterial	17,099.99	44,497.90	56,936.26
Major Collector	24,945.03	51,615.58	34,336.53
Minor Collector	7,854.28	15,836.18	1,692.16
Local	111,655.15	225,798.80	29,489.85
Statewide Total	**175,589.10**	**399,157.56**	**347,194.95**

Source: California Department of Transportation, 2019

Roadways in the Project Area include approximately 71,650 miles of maintained county roads, which in terms of mileage, account for the largest percentage of all roadways (California Department of Transportation 2019). The most heavily populated areas in California are generally along interstate or state highway corridors. Future projects permitted under the General Order are anticipated to occur adjacent to waterbodies. Some projects could occur in rural areas and include two-lane rural arterials, local roads, and levee roads.

Traffic Control

A variety of traffic control devices, such as signs, signals, and markings, are used to regulate, warn, and guide traffic. Traffic control devices are placed on, over, or adjacent to streets, highways, pedestrian facilities, bikeways, or private roads open to public traffic. Traffic controls might include but are not limited to speed limits, speed bumps, varying numbers of lanes, lane striping, and metering at freeway on-ramps. Intersection traffic may be controlled through stop signs, yield signs, traffic circles, traffic signals, and other measures.

Bridges

California had the fourth largest state inventory of bridges (25,657) in the US behind Texas, Ohio, and Illinois (American Society of Civil Engineers 2018). More than 17,000 of California's cross over waterways and generally range from one to six lanes. Caltrans owns and operates about half of the state's bridges; the remainder are owned and maintained by local jurisdictions. The following are some of the most iconic bridges in the state:

a) The Golden Gate Bridge, connecting San Francisco and Marin Counties along US Highway 101, is 4,200 feet long. The bridge was opened in 1937 and has a total of six lanes. More than 100,000 vehicles cross the Golden Gate Bridge

every day.

b) The Bixby Creek Bridge was opened in 1932. Located in Big Sur along State Route 1, this bridge is 714 feet long with one lane in each direction. Its aesthetic design makes the Bixby Creek Bridge one of the most photographed bridges in California.
c) The Foresthill Bridge in Auburn was constructed in 1973. With two lanes each way, the Foresthill Bridge is the state's tallest bridge, spanning 2,428 feet in length and 730 feet in height.

Airports

In California, there are roughly 900 airports, around 600 are private and 200 are for public. The state is served by 11 major international airports. Each of these airports provides national and international mobility for people and freight. The state is also served by smaller airports with limited commercial service. There are public use airports within 0.5 mile of utility services that occur within waters of the state.

3.17.4 Impact Analysis

Methods of Analysis

Project Activity impacts to transportation resources were qualitatively analyzed based on how the actions typically impact existing transportation resources. The Project Area's environmental baseline encompasses a legacy of disturbance from Utility Service operation and maintenance and wildfire mitigation activities, the impact analysis focuses on evaluating potential impacts on transportation with the issuance of the General Order. The analysis assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Project Activity impacts to transportation resources would be considered significant if projects permitted under the General Order would:

1. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
2. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b);
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
4. Result in inadequate emergency access

Impacts and Mitigation Measures

Impact Trans-1: Would projects permitted under the General Order conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? (Less-Than-Significant)

Implementation of Project Activities would not contribute to long-term or permanent increases in vehicular traffic because Project Activities are already ongoing, and the work is temporary. Project Activities could result in temporary increases in vehicular traffic on roadways providing access to the work area. The Project Activity-related vehicular trips would consist of hauling heavy equipment, supplies, and delivering the crew to the construction site. For example, the Board of Forestry and Fire Protections' Final Program EIR for the California Vegetation Treatment Program (2019), describes needing at most 20-40 workers onsite for their vegetation management activities that do not include prescribed burning. These trips would be short-term and construction workers commonly carpool. However, the number of trips required is subject to the activity being conducted, the location of the work, and the size of the work area. Consequently, it is not feasible to estimate the total mileage of Project Activities that could be enrolled in the General Order and this impact analysis is qualitative.

Project Activities would commonly occur in rural areas on roads in mountain terrain that can be narrow, winding, have low speed limits, and limited shoulder space. The transport of heavy equipment could result in delays to residential traffic flow. However, if traffic generated by proposed Project Activities could result in obstructions or delays that exceed the location's traffic regulations, it is assumed the Utility Service would acquire the necessary Encroachment Permit and develop a Traffic Control Plan. The Traffic Control Plan would include notification of the Project Activities, with temporal vehicular restrictions, temporary traffic control signage, and flaggers for lane closures. Use of the Traffic Control Plan would minimize potential traffic complications associated with Project Activities. As a result, the short-term and temporary nature of the Project Activities and implementation of Traffic Control Plan, as applicable, would prevent conflicts with any plan, policy, or ordinance related to circulation—including transit, roadway, bicycle, and pedestrian facilities—in the Project Area. Therefore, Project Activity impacts would be **less-than-significant.**

Impact Trans-2: Would projects permitted under the General Order conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)? (Less-Than-Significant)

CEQA Guidelines Section 15064.3(a) calls for evaluation of a project's transportation impacts in terms of vehicle miles travelled (VMT), which refers to the amount and distance of automobile travel attributable to a project. CEQA Guidelines Section 15064.3(b) states that VMT exceeding an applicable threshold of significance may indicate a significant impact. Vehicle travel associated with Project Activities is currently ongoing and has potential for a slight increase as a result of the General Order. Projects

permitted under the General Order would not result in a significant increase in VMT. As a result, Project Activity impacts would be **less-than-significant**.

Impact Trans-3: Would projects permitted under the General Order substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (No Impact)

Project Activities would primarily occur in existing utility ROW, similar to existing operation and maintenance activities. Any minor expansion of existing roads (e.g., spurs to access infrastructure in a post-wildfire setting) would be designed in compliance with existing laws and regulations and would not increase transportation hazards. Therefore, there would be **no impact**.

Impact Trans-4: Would projects permitted under the General Order result in inadequate emergency access? (No Impact)

Project Activities will be temporary in nature and have been ongoing. Utility Services would continue coordinating with the pertinent emergency service providers and provide through access for emergency vehicles. Therefore, there would be **no impact**.

3.18 TRIBAL CULTURAL RESOURCES

Would Projects Permitted Under the General Order:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
1) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC § 5020.1(k); or ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC § 5024.1. In applying the criteria set forth in subdivision (c) of PRC § 5024.1, the lead agency will consider the significance of the resource to a California Native American tribe?	X			

3.18.1 Introduction

This section describes tribal cultural resources in the Project Area and the potential impacts of activities that would be permitted under the General Order, as described in Section 2.0: Project Activities. Potential impacts to a resource listed or eligible for listing in the California Register of Historical Resources, or a resource of significance to a California Native American tribe are discussed below.

3.18.2 Regulatory Setting

The following subsections describe federal and state regulations regarding tribal cultural resources in the Project Area.

Federal

American Indian Religious Freedom Act of 1978

The American Indian Religious Freedom Act establishes a federal policy of respect for, and protection of, Native American religious practices. It also contains provisions that allow limited access to Native American religious sites.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (25 US Code Sections 3001 to 3013) requires federal agencies to consult with the appropriate Native American tribes prior to any activity that could result in the intentional or inadvertent excavation of human remains and funerary objects on federal and tribal lands. The act requires the development of a Plan of Action.

National Historic Preservation Act

Any activity that requires a federal action or permit (e.g., CWA Section 404 permit or a conditional use permit from a federal land manager) is subject to compliance with Section 106 of the National Historic Preservation Act (16 US Code Section 470 et seq.). Section 106 requires an analysis of potential impacts on historic properties. Under the act, resources that are eligible for listing on the National Historic Register of Historic Places are considered historic.

State

California Environmental Quality Act (CEQA)

CEQA (PRC Section 21000 et seq.) is the principal statute governing environmental review of projects occurring in California. CEQA requires lead agencies to determine whether a proposed project would have a significant effect on the environment, including a significant effect on tribal cultural resources. Under CEQA (PRC Section 21084.2), a project that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.

California Health and Safety Code and Public Resources Code

Broad provisions for the protection of Native American cultural resources are contained in California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010 through 8030).

Several provisions of the PRC also govern archaeological finds of human remains and associated objects. Procedures are detailed under PRC Sections 5097.98 through 5097.996 for actions to be taken whenever Native American remains are discovered. Furthermore, Section 7050.5 of the California Health and Safety Code states that any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the PRC. Any person removing human remains without authority of law or written permission of the person or persons having the right to control the remains under PRC Section 7100 has committed a public offense that is punishable by imprisonment.

Chapter 1.7, Sections 5097.5 to 5097.9 of the PRC define any unauthorized disturbance or removal of a fossil site or remains on public land as a misdemeanor and specify that state agencies may undertake surveys, excavations, or other operations as necessary on state lands to preserve or record paleontological resources.

California Native American Historic Resources Protection Act

The California Native American Historic Resources Protection Act of 2002 imposes civil penalties, including imprisonment and fines up to $50,000 per violation, on persons who unlawfully and maliciously excavate upon, remove, destroy, injure, or deface a Native American historic, cultural, or sacred site that is listed or may be listed in the California Register of Historical Resources.

California Register of Historical Resources

The California Register of Historical Resources is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1[a]). Under PRC Section 5024.1, certain resources are automatically included in the California Register of Historical Resources, including California properties formally determined eligible for, or listed in, the National Register of Historic Places.

To be eligible for the California Register of Historical Resources, a cultural resource must be significant at the federal, state, and/or local level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
2. Is associated with the lives of persons important in our past.

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register of Historical Resources must be of sufficient age and retain enough of its historic character or appearance (integrity), to convey the reason for its significance. The California Register of Historical Resources consists of resources that are listed automatically and those that must be nominated through an application and public hearing. The California Register of Historical Resources automatically includes the following resources:

a) California properties listed in the National Register of Historic Places and those formally determined eligible for the National Register of Historic Places
b) California Registered Landmarks from No. 770 onward
c) California Points of Historical Interest that have been evaluated by the California Office of Historic Preservation and have been recommended to the State Historical Commission for inclusion in the California Register of Historical Resources

The following other resources may be nominated to the California Register of Historical Resources:

a) Historical resources with a significance rating of Category 3, 4, or 5 (properties identified as eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, and/or a local jurisdiction register)
b) Individual historic resources
c) Historic resources contributing to historic districts
d) Historic resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone

Executive Order B-10-11

In 2011, Governor Edmund G. Brown Jr. issued Executive Order B-10-11 requiring all state agencies and departments to encourage early communication and consultation with California Tribes in developing legislation, regulations, rules, and policies on matters that may affect Tribes and their communities. Executive Order B-10-11 recognizes and reaffirms the inherent right of Native American Tribes to exercise sovereign authority over their members and territories, establishes the Governor's Tribal Advisor position within the Governor's Office, reaffirms the state's commitment to working with Tribes, and encourages communication and consultation with Tribes.

Native American Historic Resource Protection Act (Assembly Bill 52) and Tribal Cultural Resources

Assembly Bill 52, enacted in September 2014, recognizes that California Native American Tribes have expertise with regard to their tribal history and practices. The law established a new category of resources in CEQA, tribal cultural resources, to consider tribal cultural values when determining the impacts of projects (PRC Sections 21080.3.1, 21084.2, and 21084.3).

Public Resources Code Section 21074(a) defines a tribal cultural resource as any of the following:

a) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following:
    i. Included or determined to be eligible for inclusion in the California Register.
    ii. Included in a local register of historical resources, as defined in PRC Section 5020.1(k).
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying these criteria, the lead agency would consider the significance of the resource to a California Native American Tribe.

A cultural landscape that meets the criteria of PRC Section 21074(a) is also a tribal cultural resource if the landscape is geographically defined in terms of the size and scope. A historical resource as described in PRC Section 21084.1, a unique archaeological resource as defined in PRC Section 21083.2, or a non-unique archaeological resource as defined in PRC Section 21083.2 may also be a tribal cultural resource under CEQA if it meets the criteria identified in PRC Section 21074(a).

Assembly Bill 52 requires CEQA lead agencies to analyze the impacts of projects on tribal cultural resources separately from impacts on archaeological resources (PRC Sections 21074 and 21083.09) because tribal cultural resources have cultural values beyond their ability to yield data important to prehistory or history. AB 52 also defines tribal cultural resources in a new code section (PRC Section 21074; discussed above). Lead agencies must engage in additional consultation with California Native American Tribes (PRC Sections 21080.3.1, 21080.3.2, and 21082.3).

A substantial adverse change to a tribal cultural resource constitutes a significant effect on the environment unless mitigation reduces the effect to a less-than-significant level.

Local

The Project Area encompasses California. Many of these counties and cities have local regulations and general plans with tribal cultural resources goals and policies that guide development and encourage providing and maintaining open space resources and preserving areas of outstanding cultural value in their communities.

3.18.3 Environmental Setting

This section describes the types of indigenous resources, some of which could qualify as tribal cultural resources, that could be affected by Project Activities. The area of analysis covers the entire geographic extent of California and includes many types of tribal cultural resources.

Ethnographic Setting

Section 3.5 Cultural Resources provides the prehistory and ethnographic information pertaining to the local Native American populations and resources, as well as a general history of region.

Record Search Results

The Project Area for the General Order includes numerous facilities and potential work sites statewide, with specific locations of work sites to be determined on a project-by-project basis. As a result, a cultural resources records search could not be carried out for the Project. Instead, record searches would be performed by Utility Services for individual projects.

Native American Consultation

The State Water Board sent a notification via certified mail to 179 tribes (certified mail was sent to both AB 52 and Executive Order B-10-11 tribes) on January 14, 2022. As a result of the notification eight (8) tribes requested consultation with the State Water Board. Comments were received on a range of topics that included a request that the State Water Board continue to provide updates on development of the General Order and consider tribal input and comments as the CEQA document and General Order were drafted. In addition, it was asked that the State Water Board include tribal cultural resource requirements in the General Order to require a records search for potential tribal cultural resources, notification of projects to tribes, an opportunity to consult where there is a potentially affected tribal cultural resource, and documentation of compliance with these requirements. As a result of the tribal consultations, the State Water Board has included measures for tribal cultural resources as conditions of the General Order.

3.18.4 Impact Analysis

Methods for Analysis

Project Activity impacts to tribal cultural resources are evaluated based on how typical Utility Service methods could impact tribal cultural resources. Additional consideration was given to the mechanisms of direct impacts from Project Activities to tribal cultural resources, including disturbing, materially altering, or demolishing tribal cultural resources. However, the precise locations and detailed characteristics of potential Project Activities are yet to be determined. Therefore, Project Activity impacts to tribal cultural resources were qualitatively and conservatively analyzed. While most Project Activities would be contained to existing infrastructure where tribal cultural resources are presumed to be already known and avoided or mitigated, the construction of access routes and minor expansion of facilities would expand the ground disturbance footprint to locations that were potentially not previously evaluated.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. Impacts to tribal cultural resources would be considered significant if projects permitted under the General Order cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a size, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k); or
2. a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency will consider the significance of the resource to a California Native American tribe.

Impacts

Impact TCR-1: Impacts to tribal cultural resources would be considered significant if projects permitted under the General Order cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Code Section 21074 as either a size, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or

ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency will consider the significance of the resource to a California Native American tribe (Potentially Significant Impact).

Project Activities could involve ground disturbance and vibration through equipment maintenance, repair, and/ or replacement; access route construction and reconstruction; and vegetation management. However, the precise locations and detailed characteristics of potential Project Activities are yet to be determined. Therefore, this analysis focuses on reasonably foreseeable changes from implementation of the types of Project Activities authorized by this General Order and qualitatively and conservatively analyzed Project Activity impacts to tribal cultural resources. The construction of access routes and minor expansion of facilities would potentially expand the ground disturbance footprint. Construction of new infrastructure or modifications to existing infrastructure could result in significant impacts on tribal cultural resources by introducing new visual elements to landscapes associated with or comprising tribal cultural resources. Construction activities and vegetation management could alter the makeup of biological communities (e.g., fishes, riparian vegetation) that comprise tribal cultural resources (e.g., traditional hunting/fishing/gathering areas). Ground-disturbing activities could result in significant impacts on tribal cultural resources through their partial or complete destruction of the resources. If existing infrastructure is near tribal cultural resources, it may not be possible to upgrade, repair, or maintain the existing infrastructure without also disrupting the tribal cultural resource. Any impacts of these construction activities on such tribal cultural resources could be significant.

Individual projects subject to the tribal cultural resources requirements in the General Order would be required to conduct a records search to identify any potentially affected tribal cultural resources and where that search yielded a positive result, consult with any of the affected tribes upon request. During consultation, tribes could identify potential protective measures that could avoid or minimize the impact to the tribal cultural resource. Depending on the specific Project Activity, it may be possible to avoid or

minimize the impact to the tribal cultural resource by, for example, avoidance of the site, confidentiality of the site location, fence off or cap-in place areas of high sensitivity, avoid ground disturbance or route around tribal cultural resource sites, and provide worker training. These requirements reduce the impact on tribal cultural resources but cannot reduce the impact to a less-than-significant level for all possible Project Activities. Project Activities may result in either a direct impact (e.g., physical modification, damage, or destruction) or an indirect impact (e.g., alteration to setting, biological community, or visual setting) on a tribal cultural resource as defined in PRC Section 21074 may be significant. Thus, the impact would be potentially significant.

In some instances, an impact on a tribal cultural resource that the tribe would deem significant would be unavoidable. In addition, Project Activities that are necessary to restore essential public services or facilities in response to ongoing or recent wildfire activity are subject to streamlined requirements where power needs to be restored such that a potential for impacts to tribal cultural resources are possible for such projects. These impacts would not include the impacts caused by the wildfire itself but rather the Project Activities necessary to restore utility services. For projects that are necessary to restore essential public services or facilities in response to ongoing or recent wildfire activity, potential minimization measures would include a records search, consultation and notification with the potentially affected tribe(s). Such consultation and notification may not be possible to complete prior to beginning such projects, given the public safety urgency associated with those projects and the amount of time it typically takes to identify potential tribal cultural resources. Without the specific location, activity, and resource at issue, it is not possible to identify feasible mitigation measures that are not already included as requirements related to tribal cultural resources in the General Order. Because the extent and location of Project Activities are not known at this time, it is not possible to conclude that the General Order requirements or equally effective mitigation measures would reduce significant impacts to a less-than-significant level in all cases. Therefore, this impact would be **significant and unavoidable**.

3.19 UTILITIES AND SERVICE SYSTEMS

Would Projects Permitted Under the General Order:	Potentially Significant	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
1) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
2) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
3) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
4) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
5) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

3.19.1 Introduction

This section discusses utilities and service systems in the Project Area and evaluates the potential impacts of the types of activities that would be permitted under the General Order, as described in Section 2.0: Project Description. As discussed below, potential impacts include generating vegetation management that exceeds landfill or biomass facilities and complying with all applicable regional and local solid waste policies.

3.19.2 Regulatory Setting

This section describes the regulations and regulatory agencies relevant to utilities and services in the Project Area.

Federal

Clean Water Act (CWA)

The Federal Water Pollution Control Act Amendments of 1972, better known as the CWA, established the institutional structure for the USEPA to regulate discharges of pollutants into waters of the US, establish water quality standards, conduct planning studies, and fund grant projects. Congress has amended the CWA several times since 1972.

For a more detailed discussion of the CWA, see Section 3.4, Biological Resources, and Section 3.10, Hydrology and Water Quality.

Resource Conservation and Recovery Act

Subtitle D of the Resource Conservation and Recovery Act (42 US Code 6901 et seq.) contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills. USEPA's waste management regulations are listed in Volume 40, Parts 239–282 of the Code of Federal Regulations. Resource Conservation and Recovery Act Subtitle D is implemented by Title 27 of the PRC, approved by USEPA.

Safe Drinking Water Act

The Safe Drinking Water Act authorizes USEPA to establish minimum standards to protect tap water and underground sources of drinking water. It also requires all owners and operators of public water systems to comply with health-related standards.

Under the Safe Drinking Water Act, state governments can be authorized to implement rules established by USEPA.

State

Assembly Bill 341

To reduce greenhouse gas emissions from disposal of recyclables in landfills, AB 341 requires local jurisdictions to implement commercial solid waste recycling programs. Businesses that generate 4 cubic yards or more of solid waste per week or multifamily dwellings of five units or more must arrange for recycling services. To comply with AB 341, jurisdictions' commercial recycling programs must include education, outreach, and monitoring of commercial waste generators and must report on the process to CalRecycle. Jurisdictions may enact mandatory commercial recycling ordinances to outline how the goals of AB 341 will be reached.

For businesses to comply with AB 341, they must arrange for collection of recyclables by self-hauling, subscribing to a franchised hauler for collection, or subscribing to a recycling service that may include mixed waste processing that yields diversion results comparable to source separation (CalRecycle 2021).

Assembly Bill 1220

California Department of Resources Recycling and Recovery and the State Water Board completed parallel rulemaking as a result of AB 1220 (Chapter 656, Statutes of 1993). Assembly Bill 1220 required clarification of the roles and responsibilities of CalRecycle and the State Water Board, the Regional Water Board, and CalRecycle's local enforcement agencies in regulating solid waste disposal sites. The approved regulations in California Code of Regulations Title 27 combine the prior disposal site/landfill regulations of CalRecycle and the State Water Board, which were maintained in California Code of Regulations Title 14 and California Code of Regulations Title 23, Chapter 15 (which contains requirements for disposal of hazardous waste).

The purpose of CalRecycle's regulatory standards is to protect public health and safety and the environment. The regulations apply to active and inactive disposal sites, including facilities or equipment used there. These standards clarify that the local enforcement agency has primary responsibility for enforcing the state's minimum standards, working in cooperation with the Regional Water Board or other oversight agencies.

The California Code of Regulations Title 27 regulations also include the following operating criteria and requirements for landfills and disposal sites:

a) Sufficient materials to cover waste to prevent a threat to human health and the environment.
b) Proper handling of waste and the equipment needs of solid waste facilities.
c) Control of activities on-site.
d) Control of landfill gas made from the decomposition of wastes on-site.
e) Proper operation of the site to protect the site from fire threats.

Assembly Bill 1826

To further reduce greenhouse gas emissions from disposal of organic materials in landfills, AB 1826 required certain businesses to recycle their organic waste beginning on April 1, 2016, with required recycling services dependent on the amount of solid waste generated per week. Similar to AB 341, jurisdictions must implement an organic waste recycling program that includes the education, outreach, and monitoring of businesses that must comply. Organic waste refers to food waste, green waste, landscaping and pruning waste, nonhazardous wood waste, and food-soiled paper that is mixed with food waste.

California Government Code

Section 4216 of the California Government Code protects underground structures during excavation. Under this law, excavators are required to contact a regional notification center at least 2 days prior to excavation of any subsurface installations. Underground Service Alert notifies utility providers with buried lines within 1,000 feet of the excavation, and those providers are required to mark the specific location of their facilities prior to excavation. The code also requires excavators to probe and expose existing utilities, in accordance with state law, before using power equipment.

California Occupational Safety and Health Administration

In accordance with 8 California Code of Regulations Section 1270, Fire Prevention, and 8 California Code of Regulations Section 6773, Fire Protection and Fire Equipment, the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. Among the standards are guidelines on the handling of highly combustible materials; requirements for the sizing of fire hoses; restrictions on the use of compressed air; access roads; and testing, maintenance, and use of all firefighting and emergency medical equipment.

California Public Utilities Commission

The CPUC regulates privately owned water, energy, and telecommunications utilities. The commission is also responsible for safety enforcement, which includes investigating accidents occurring on the property of any public utility. The CPUC's Division of Ratepayer Advocates has a statutory mandate to obtain the lowest possible utility rates for service consistent with safe and reliable service levels.

Essential Services Building Seismic Safety Act

The Essential Services Building Seismic Safety Act of 1986 (California Health and Safety Code, Sections 16000–16022) applies to fire stations, police stations, and other public facilities that respond to emergencies. This law is intended to ensure that essential-services buildings can continue to serve the public after a disaster and are designed and constructed to minimize fire hazards. In addition, these buildings, and the nonstructural components vital to their operation, must be designed to resist the forces created by earthquakes, gravity, fire, and wind.

Integrated Waste Management Act (Assembly Bill 939)

The regulations affecting solid waste disposal in California can be found in Title 14 of the California PRC, the Integrated Waste Management Act. Originally enacted in 1989 through AB 939, the law is designed to increase the life of landfills by requiring diversion of solid waste from landfills in the state and conservation of other resources through increased recycling programs and incentives.

Assembly Bill 939 requires counties to prepare integrated waste management plans to implement landfill diversion goals and requires cities and counties to prepare and adopt source reduction and recycling elements. These elements must establish a program for managing solid waste generated within the cities or county's jurisdiction. Each source reduction and recycling element must include, but is not limited to, all of the following components for solid waste generated within the plan's jurisdictional area:

a) Waste characterization
b) Source reduction
c) Recycling
d) Composting
e) Solid waste facility capacity
f) Education and public information
g) Funding
h) Special waste

Source Reduction and Recycling Element programs are designed to achieve landfill diversion goals by encouraging manufacturing, purchasing, and use of recycled products. Assembly Bill 939 also requires California cities to implement plans designed to divert the total solid waste generated within each jurisdiction by 50 percent based on a base year of 2000; the diversion rate is adjusted annually for population and economic growth for the respective jurisdictions.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) established the State Water Board and the Regional Water Boards as the principal state agencies with primary responsibility for the coordination and control of water quality (Water Code Section 13001), including the enforcement of applicable laws and regulations. In addition to overseeing the efforts of the Regional Water Boards, the State Water Board is responsible for allocating surface water rights.

For a more detailed discussion of the Porter-Cologne Water Quality Control Act, see Section 3.4, Biological Resources, and Section 3.10, Hydrology and Water Quality.

Public Resources Code Section 41780

The California Legislature set a policy goal that more than 75 percent of solid waste generated in the state would be source reduced, recycled, or composted commencing by January 1, 2020. A 50 percent diversion rate would be enforced for local jurisdictions.

State Water Board's Division of Drinking Water

The State Water Board's Division of Drinking Water is responsible for regulating public water systems; oversees water recycling projects; permits water treatment devices; supports and promotes water system security; and performs a number of other functions. The Division of Drinking Water consists of three branches: The Northern California Field Operations Branch, the Southern California Field Operations Branch, and the Program Management Branch. The Northern California and Southern California Field Operations Branches are responsible for the enforcement of the federal and California Safe Drinking Water Acts and regulatory oversight of public water systems within California. In this undertaking, staff perform field inspections, issue operating permits, review plans and specifications for new facilities, take enforcement actions for non-compliance with laws and regulations, review water quality monitoring results, and support and promote water system security. The Field Operations Branches also participate in funding infrastructure improvements, conducting source water assessments, overseeing water recycling projects, and promoting public water systems in drought preparation and water conservation.

Uniform Fire Code

The Uniform Fire Code provides regulations governing the construction, maintenance, and use of buildings. The code addresses fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, storage and use of hazardous materials, provisions for protecting and assisting fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Uniform Fire Code contains specialized technical regulations related to fire and life safety. The code provides sprinkler system standards and requirements for different types of buildings, including hospitals.

Regional and Local

Policies and regulations governing utilities services are found in each county's adopted general plan.

3.19.3 Environmental Setting

Water supply and distribution systems, wastewater collection and treatment systems, solid waste collection and disposal, and public services (law enforcement, emergency medical services, and other public facilities) are described here to support a program-level analysis of environmental impacts.

Utilities and Service Systems

Water Supply and Distribution Systems

In California, water service is provided by cities, counties, special districts, and private utilities. Most service providers get their water from surface water, groundwater, or a combination of both. Water rights, water contract agreements, groundwater pumping limitations, and the infrastructure required to treat, pump, and deliver water are the factors that limit the amount of water available to service providers.

Wastewater Collection and Treatment Systems

A variety of federal and state laws regulate wastewater in California; however, wastewater collection and treatment services are provided by cities, counties, and special districts. Urban areas generally contain collection systems at wastewater facilities. Where sewer service is unavailable, residents and businesses in some rural areas dispose of wastewater in on-site septic systems. In some areas, individual nonindustrial developments also have treatment plants to treat localized wastewater from mobile home parks, apartment complexes, and resorts.

Municipal sewer systems consist of sewer collection pipelines, treatment facilities, and outfall structures or disposal systems. Secondary or tertiary-treated effluent is generally discharged into rivers, streams, creeks, and sloughs. Land disposal includes evaporation and percolation plants, or application to irrigated agricultural lands. During the summer, recycled effluent is used for industrial purposes or agricultural irrigation. In addition, municipalities may provide wastewater collection infrastructure and services that discharge to regional facilities owned and operated by other municipalities.

Solid Waste Collection and Disposal

Counties and cities oversee solid waste management planning, administration, and facility approval. Under the California Integrated Waste Management Act, local enforcement agencies are responsible for permitting solid waste facilities. Where authorized local enforcement agencies are missing, permitting falls under the jurisdiction of CalRecycle.

Many municipalities enter into franchise agreements with private waste management businesses. Planning and operation of solid waste management facilities is typically coordinated regionally; some communities do not have landfill sites within their boundaries, thus making it necessary for such communities to haul waste to a facility outside the county or city for disposal. These communities use transfer stations and recycling facilities that are a component of local waste management solutions.

Resource recovery measures such as recycling, composting, and waste-to-energy are implemented to comply with state diversion regulations, extend the life of landfills, reduce the environmental impacts of solid waste disposal, and reuse resources. These activities are often subject to performance measures and requirements identified in local integrated waste management plans.

Telecommunication

The CPUC develops and implements policies for the telecommunication industry to achieve the following goals:

a) Ensure fair, affordable universal access to necessary services.
b) Develop clear rules and regulatory tools to allow flexibility without compromising due process.
c) Remove barriers that prevent a competitive market.
d) Reduce or eliminate burdensome regulations.

In California, telecommunication facilities are being shifted to wireless facilities such as small cells and distributed antenna systems. Many of these facilities are proposed for installation in public ROW. US Code Title 47, Section 332 maintains local authority over local decisions regarding the placement, construction, and modification of personal wireless telecommunication facilities.

Natural Gas

Natural gas consists of many different compounds including methane and natural gas liquids (ethane, propane, butanes, and pentanes). It is formed through the decomposition of historic organic matter that has been converted to hydrocarbon fuels by high pressure and temperatures deep under the earth's surface.

In 2020, California consumed 6,923 trillion British Thermal Units, which is the second most in the US (US Energy Information Administration 2022). However, California ranked 48th in the US for total consumption per capita. California is the largest consumer of jet fuel and the second-largest consumer of gasoline in the US, which accounts for 15% and 10% of the nation's jet fuel and gasoline consumption, respectively.

The state's natural gas facilities provide residents with electricity, heat for buildings, fuel for vehicles, and many other uses. Natural gas is generally delivered to residents and users through pipelines and tanks in the form of compressed natural gas.

Electric Power

In 2021, California produced approximately 21,7222 thousand mega-watt hours of electricity and received approximately 30% of its electricity supply from outside of California (US Energy Information Administration 2022). Generally, electric power is generated by power plants or renewable energy resources, including hydropower, geothermal, biomass, and solar energy. Energy is transferred through electricity

substations, transformers, and power lines that relay the energy from the producer to the consumer.

California is part of the western transmission system that maintains reliable energy supply in the western US. On a more local scale, balancing authorities help to ensure that demand and supply are regionally balanced. California has eight balancing authorities:

1. Balancing Authority of Northern California
2. California Independent System Operator
3. Imperial Irrigation District
4. Los Angeles Department of Water & Power
5. PacifiCorp West
6. NV Energy
7. Turlock Irrigation District
8. Western Area Lower Colorado

The California Independent System Operator operates in all 58 California counties and operates the flow of electricity through three main investor-owned utilities (Pacific Gas and Electric Company, Southern California Edison, and San Diego Gas and Electric Company) in addition to several other municipal operators.

Public Services

Public services are provided by counties, cities, or community services/special districts, and in some cases by private entities under contract with local governments. The level of demand for public services depends on the population requiring such services. Additional factors that affect demand and the cost of delivering services include development density and the economic circumstances of the region.

Law Enforcement

Incorporated cities have their own police departments that provide law enforcement within the city limits, generally including responses to calls, investigations, surveillance, and routine patrols. Unincorporated areas of the state are generally served by county sheriff's departments, which typically operate county jails and coroner's offices, and by the Governor's Office of Emergency Services. The California Highway Patrol, the primary law enforcement agency for state highways and roads, provides law enforcement, traffic school, accident investigations, and management of hazardous materials spills. The CDFW is responsible for enforcing laws governing hunting and fishing.

Fire Protection and Emergency Medical Services

Fire Protection

Multiple fire districts and departments serve counties, cities, and communities in California. These districts and departments are located strategically to fulfill targeted response times. Fire districts receive and respond to an abundance of calls, most for medical emergencies, with fire suppression making up the remaining calls. Emergency medical rescue and fire protection services are provided by cities, counties, and special districts. Some agencies provide advanced life support via fire department ambulances, paramedic squads, and/or the placement of firefighters/paramedics on fire engines. Special squads or response units are operated by fire districts, fire departments, and county sheriff's office.

Emergency Medical Services

Emergency medical services in California include emergency dispatch (911), ambulances, and hospitals and other medical care services.

Ambulances

Ambulance services are provided by local fire districts or contracted through private companies. To provide advanced life support and ambulance transport services in a region, private ambulance companies must obtain operating permits. In some cases, fire departments are equipped to provide advanced life support until an ambulance service arrives, but they mostly provide first responder services such as basic life support.

Hospitals and Medical Care Services

Numerous hospitals and medical care services are located within the Project Area with services ranging from emergency services, social services, radiation therapy, comprehensive outpatient rehabilitation services, home health care services, and many others.

Other Public Facilities

Numerous public-school districts operate in the Project Area, serving students from preschool through high school. These districts are typically found in more densely populated areas. Public libraries are typically funded by local property taxes, state funds, library fines and fees, grants, and donations. County libraries generally provide additional community services such as internet access, mobile book services, children's programs, and adult literacy programs. Each county generally provides public library services to its residents in coordination with the cities.

According to 42 US Code 5122, a “public facility” is defined as a facility owned by the state or local government such as:

a) A flood control, navigation, irrigation, reclamation, public power, sewage treatment and collection, water supply and distribution, watershed development, or airport facilities.
b) A non-federal-aid street, road, or highway.
c) Any other public building, structure, or system, including those used for educational, recreational, or cultural purposes.
d) Parks

The General Order would include the use of such public facilities such as access and haul routes consisting of public roads, nature preserves, and other public facilities found throughout the state.

3.19.4 Impact Analysis

Methods of Analysis

Project Activity impacts to utilities were analyzed qualitatively using best professional judgment. The Project Area’s environmental baseline encompasses a legacy of disturbance from Utility Service operation and maintenance and wildfire mitigation activities. Project Activities permitted under this General Order would potentially cause additional disturbance due to the nature of enhanced wildfire prevention and post-fire response. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities related to the proposed project. This section describes impacts in terms of location, context, duration, and intensity, and recommends mitigation measures, when necessary, to avoid or minimize impacts. The analysis assumes that Utility Services will implement mitigation measures and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

The thresholds for significant impacts to utilities were derived from Appendix G of the CEQA Guidelines. Impacts to utilities would be significant if projects permitted under the General Order would:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
2. Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
3. Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it does not have adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments;

4. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
5. Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste

Impacts and Mitigation Measures

Impact UTIL-1: Would projects permitted under the General Order require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? (No Impact)

Project Activities do not involve development of residential communities or other similar types of development that would require the construction, relocation, or expansion of water, wastewater treatment or stormwater drainage, electric power, natural gas or telecommunication activities. Nor would Project Activities induce population growth in an area that would affect the quantity or quality of wastewater, treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities. Project Activities would not include the construction of septic tanks or wastewater treatment systems. Therefore, implementation of these activities would result in **no impact**.

Impact UTIL-2: Would projects permitted under the General Order have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (No Impact)

Project Activities do not have an effect on water supplies. No new or expanded entitlements for water would be required. Therefore, implementation of these activities would result in **no impact**.

Impact UTIL-3: Would projects permitted under the General Order result in a determination by the wastewater treatment provider, which serves or may serve the project, that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (No Impact)

Project Activities would not impact existing water and wastewater treatment facilities. Given the Project Activities would not result in an increase of wastewater from current baseline conditions, wastewater treatment providers are expected to continue to treat wastewater with no additional demand. Water would be temporarily required during construction for worker consumption, compaction of substation soils, and dust control. Water consumed by construction workers would be obtained from municipal sources; thus, it would already be treated and not require further treatment. Water used for soil compaction activities is not anticipated to require treatment; however, should treatment be required, it would be conducted on site in accordance with Regional Board

requirements. Water to be used for dust control would be dispersed onsite to be absorbed into the ground and does not need to be treated. As a result, existing water treatment facilities would not be affected, nor would they require expansion. Therefore, the Project will result in **no impact** to wastewater treatment providers throughout the state.

Impact UTIL-4: Would projects permitted under the General Order generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? (Less-Than-Significant Impact)

Solid waste produced by Project Activities would include damaged and outdated infrastructure that has been replaced, equipment packaging, spent welding rods, vegetation management waste, and many other items. When feasible, materials would be recycled to reduce the waste generated.

Project Activities include the Utility Services' ongoing vegetation management of their ROW per the California Public Utilities clearance standards; these actions include trimming, mowing, removal, pesticide application, and other methods to manipulate vegetation below and adjacent to existing circuits, electrical structures, and facilities. The Utility Service ROW environmental baseline entails a history of vegetation management. As a result, the ROW contains young trees and shrubs that are routinely trimmed to a conservative height threshold with respect to their distance from the powerline. The small size of the treated trees and shrubs coupled with the narrow extent of the ROW does not often warrant biomass transportation to organic waste facilities, but instead the vegetation management waste is left on the ground, burned, or chipped onsite.

CAL FIRE Final Program EIR for the California Vegetation Treatment Program (2019) determined the volume of vegetation management waste generated by the program could have a significant and unavoidable impact because the waste could exceed the capacity of biomass facilities. However, CAL FIRE's vegetation treatment program intends to reduce significant forest understory fuel loads that have accumulated from decades of fire suppression, which strongly contrasts Project Activity vegetation management of routinely maintained ROW. As a result, the volume of Project Activity vegetation management waste generated with potential to be delivered to landfills is not equivalent to waste generated by CAL FIRE's Vegetation Treatment Program. Electrical utilities could widen their treatable landscape to conservatively include mature trees and problematic adjacent burned areas, which could require delivery to biomass facilities. However, the small increase in scale of treatment would not likely exceed the current baseline conditions for vegetation management. As a result, Project Activities would not result in an excess volume that exceeds the biomass facilities intake capacity.

Because Project Activities have been conducted in the Project Area for the life of the equipment, the impacts of waste generated from Project Activities represent baseline environmental conditions that would not change following the issuance of the General Order. Therefore, Project Activities are not anticipated to generate vegetation management that exceeds landfill or biomass facilities and potential impacts resulting from issuance of the General Order would be **less-than-significant**.

Impact UTIL-5: Would projects permitted under the General Order comply with federal, state, and local statutes and regulations related to solid waste? (Less Than Significant Impacts)

Solid waste generated from system hardening, vegetation management, and access route construction and reconstruction, among other Project Activities, would be subject to federal, state, and local statutes and regulations, including those listed above in this section's Regulatory Setting. These include the Resource Conservation and Recovery Act, the state Integrated Waste Management Act, California PRC Section 41780, California AB 1220, California AB 341, California AB 1826, and regional and local solid waste policies and regulations throughout the state. Utility Services are anticipated to continue complying with all applicable regional and local solid waste policies, which would be determined on a project-by-project basis. This impact would be **less-than-significant**.

3.20 WILDFIRE

Would Projects Permitted Under the General Order:	Potentially Significant	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would projects permitted under the General Order:	-	-	-	-
1) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
2) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
3) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
4) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

3.20.1 Introduction

This section discusses the potential wildfire impacts from the types of activities that would be permitted under the General Order, as described in Section 2.0 Project Description. This analysis is specific to Project Activities located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zones. As discussed below, Project Activities will result in no impacts that would increase the risk of wildfire.

3.20.2 Regulatory Settings

This section describes the regulations and regulatory agencies relevant to wildfire in the Project Area.

Federal

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission requires utilities to adopt and maintain minimum clearance standards between vegetation and transmission voltage power lines. These clearances vary depending on voltage. In most cases, the minimum clearances required in state regulations are greater than the federal requirement. For example, California has adopted the CPUC's General Order 95 rather than the North American Electric Reliability Corporation Standards as the electric safety standard for the state.

Federal Wildland Fire Management Policy

In 1995, the Federal Wildland Fire Management Policy established a consistent and coordinated fire management policy across multiple federal jurisdictions (US Department of Agriculture and US Department of the Interior 1995); the policy was updated in 2001 and guidance for implementation was provided in 2009. An important component of the Federal Wildland Fire Management Policy is the acknowledgment of the essential role of fire in maintaining natural ecosystems.

National Fire Plan

In 2000, the President directed the Secretaries of Agriculture and the Interior to develop a response to severe wildfires, reduce fire impacts on rural communities, and ensure future firefighting capacity. Congress also mandated the implementation of the National Fire Plan. It is a long-term strategy to protect natural resources and communities, as well as a long-term commitment based on cooperation and communication among federal agencies, states, local governments, tribes, and members of the public. The five key areas addressed under the National Fire Plan are firefighting and preparedness, rehabilitation and restoration, hazardous fuels reduction, forest health management, and rural community assistance.

State

Board of Forestry and Fire Protection

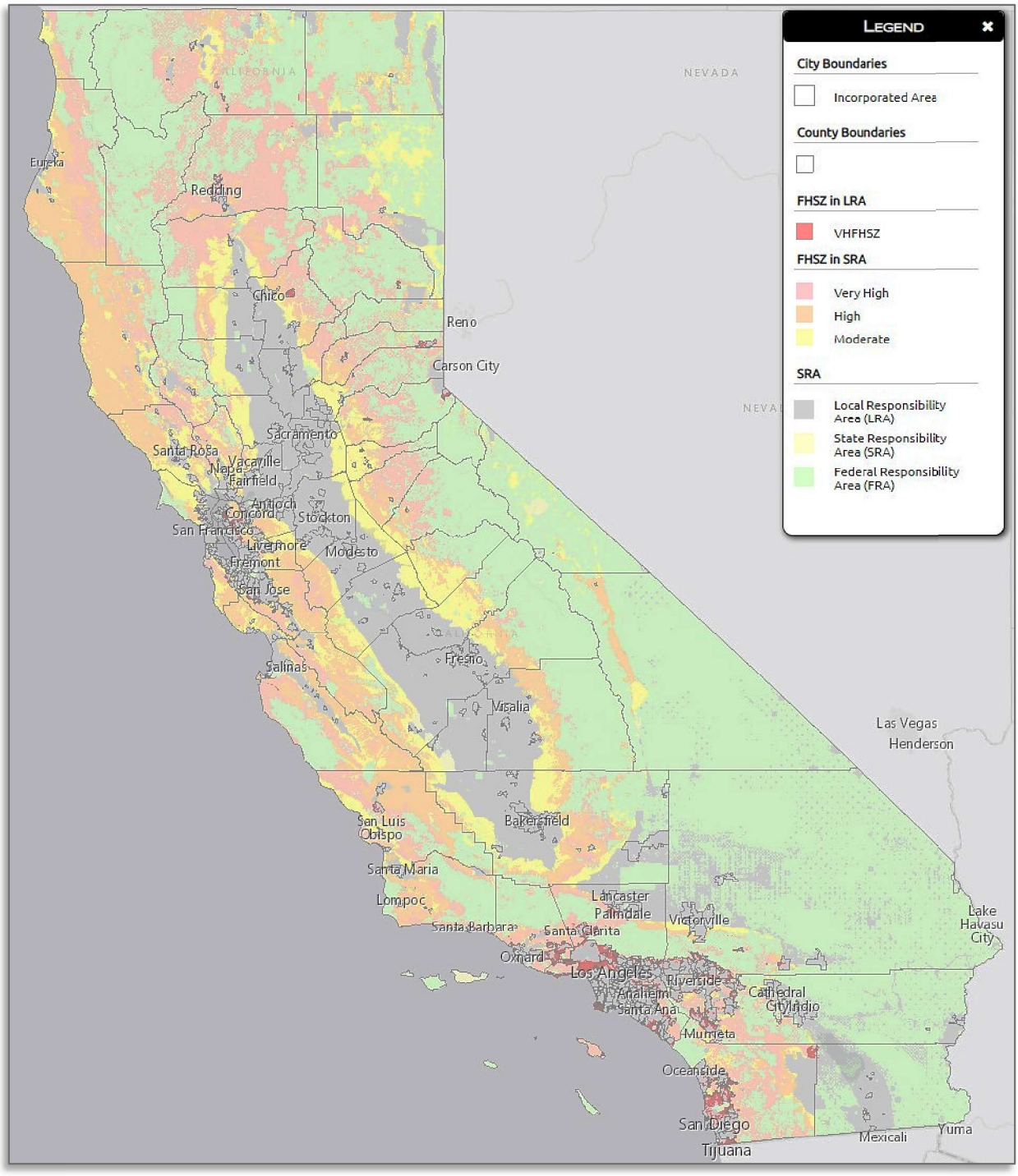
The Board of Forestry and Fire Protection is a Governor-appointed body within CAL FIRE. CAL FIRE is responsible for creating the state's general forest policies and representing the state's interest in the federal forestlands of California. CAL FIRE and the Board of Forestry and Fire Protection work to implement California's legislature mandating protection and enhancement of the state's unique forest and wildland resources. The Board of Forestry and Fire Protection regulates and protects wildland forest resources that are not under federal jurisdiction, including commercial and noncommercial timber, forests reserved for parks and recreation, woodlands, brush-range watersheds, and all private and state lands contributing to California's forest resource wealth.

California Department of Forestry and Fire Protection

CAL FIRE provides fire protection and stewardship to over 31 million acres of privately-owned wildlands in the state. In addition, CAL FIRE provides emergency services in 36 of the state's 58 counties via contracts with local governments. Per California PRC Sections 4201 to 4204, CAL FIRE developed and maintains Fire Hazard Severity Zone (FHSZ) Maps, which depict locations with a high probability of fire and the locations for which state or local jurisdictions have the responsibility to prevent or suppress fires; the probability of fire is informed by fuels, terrain, weather, and other environmental conditions (Figure 3.20-1; CALFIRE 2022a). Public Resources Code Sections 4790 to 4799.04 designates CALFIRE's regulatory authority to administer the California Forest Improvement Program.

Pursuant to PRC 4113 and 4125, CAL FIRE has the responsibility of preventing and extinguishing wildland fires in the State Responsibility Areas. Inversely, local agencies, including cities and counties, are primarily financially responsible for preventing and suppressing forest fires in Local Responsibility Areas (California Government Code Sections 51175-51189). Public Resources Code 4427 provides fire safety statutes that restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on construction equipment with internal combustion engines; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire suppression equipment that must be provided on site for various types of work in fire-prone areas.

Figure 3.20-1: Fire Hazard Severity Zones Map



Source: CAL Fire, 2022

California Public Utilities Commission

According to the CPUC's General Order 95, the CPUC regulates all characteristics of design, construction, operation, and maintenance of electrical powerlines subject to their jurisdiction. In 2017, CPUC issued fire safety regulations that apply to the High Fire-Threat Districts, which consist of the following three types (Figure 3.20-2; CPUC 2021):

1. Tier 1 High Hazard Zones depicted on the USFS and CAL FIRE joint map of Tree Mortality High Hazard Zones
2. Tier 2 locations on the CPUC Fire Threat Map, which have an elevated risk of utility-associated wildfire
3. Tier 3 locations on the CPUC Fire Threat Map, which have an extreme risk of utility-associated wildfire

In 2018, CPUC published an Order Instituting Rulemaking to Implement Electric Utility wildfire mitigation plans to facilitate SB 901's requirement that electrical utilities submit wildfire mitigation plans.

Per the CPUC fire safety regulations, electrical utilities are required to implement the following measures:

a) Prioritize the correction of safety hazards with a focus on High Fire-Threat Districts
b) Resolve non-immediate fire risks within 12 months in Tier 2 High Fire-Threat Districts and within 6 in Tier 3 High Fire-Threat Districts
c) Maintain the increased clearance between powerlines and vegetation in High Fire-Threat Districts
d) Maintain stringent wire-to-wire clearances for reconstructed and new facilities in Tier 2
e) Conduct annual inspection of overhead distribution facilities in rural areas of Tier 2 and 3
f) Prepare and implement an annual fire-prevention plan if overhead facilities occur in High Fire-Threat Districts

Executive Order B-52-18

Executive Order B-52-18 was issued in 2018 to support the state's wildfire resilience efforts, address extensive three mortality, improve forest management, and reduce associated impacts from climate change. The Executive Order calls for an increase in vegetation management and fuel reduction and outreach and education for California landowners.

Senate Bill 901

In 2018, SB 901 was passed by the California legislature in response to the increasing frequency and intensity of California's wildfires. The bill requires electrical utility companies or electrical cooperatives to implement wildfire mitigation plans to prevent,

combat, and respond to wildfire-causing ignitions resulting from interactions of vegetation with electrical utility infrastructure in their service territories. Activities detailed in the wildfire mitigation plans include vegetation management, system hardening, pole replacement, and access road improvements.

Senate Bill 1260

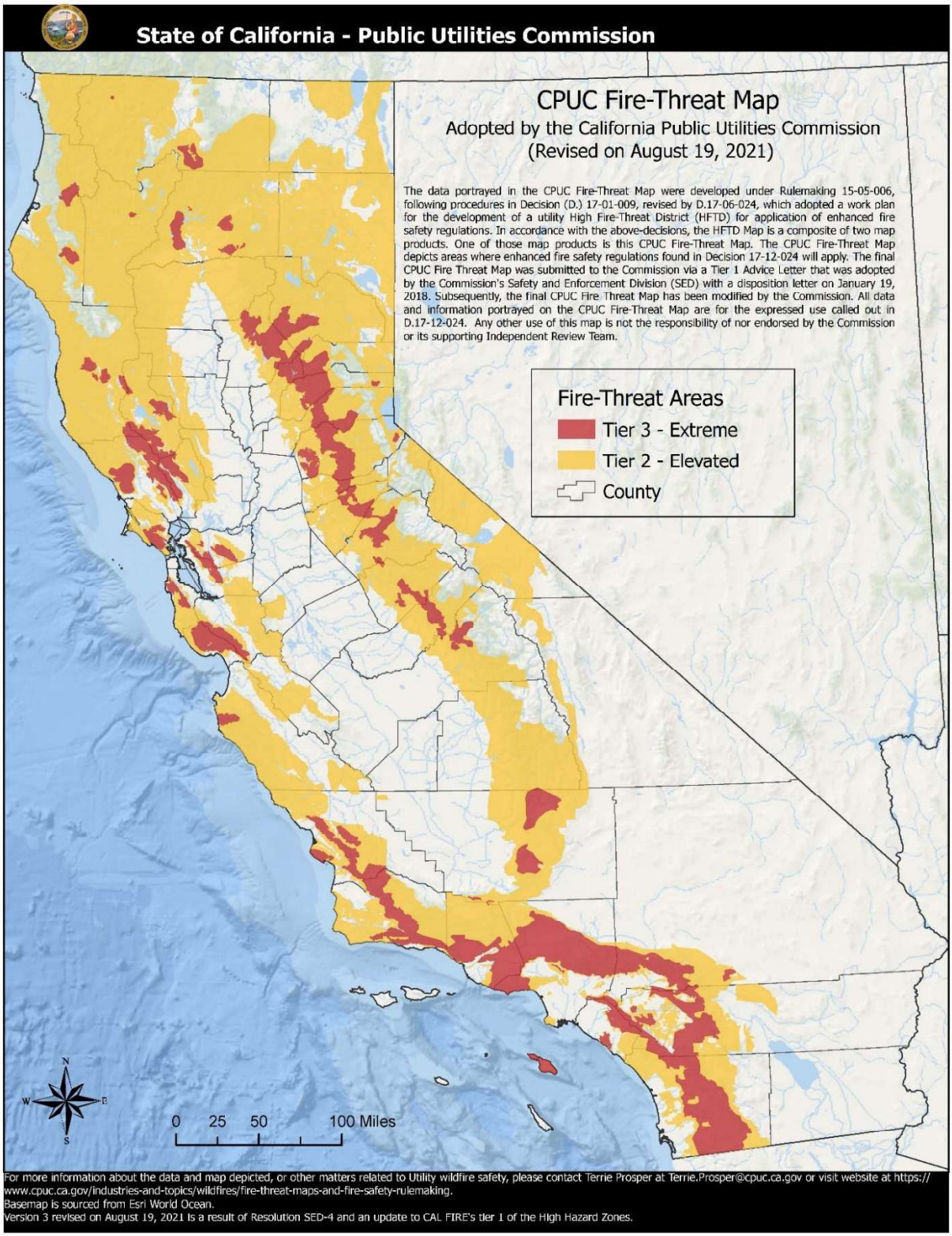
On February 15, 2018, Governor Brown signed SB 1260, which is intended to support and protect California communities from catastrophic wildfire by improving forest management practices to reduce the risk of wildfires due to climate change. Senate Bill 1260 recognizes that prescribed burns are an important tool to help reduce and prevent the impacts of wildfires and includes provisions that encourage more frequent use of prescribed fire in managing California's forest lands.

Local

County Fire Plans

The study area encompasses multiple counties with multiple cities throughout California. Each county and city have local regulations and a general plan with health and safety goals and policies that guide development and encourage conformance with fire regulations.

Figure 3.20-2: California Public Utilities Commission Fire-Threat Map



3.20.3 Environmental Setting

Wildfire Behavior

Wildfire is influenced by numerous variables, but the primary factors are weather and climate, vegetation, topography, and human intervention. These factors blend to produce local and regional fire regimes that influence the fire's origin, duration, and location. A specific location's fire regime represents the legacy of fire frequency, intensity, severity, and acreage previously burned; fire intensity refers to the heat released from the fire and the speed it traveled, while fire severity refers to the extent ecosystems and existing conditions are altered. The variables influencing wildfire and the location's fire regime are important considerations for evaluating a location's wildfire risk.

Fire is a cyclic driving force in ecosystem establishment and succession. Each local ecosystem is adapted to a respective fire-regime. A given ecosystem is not a static environment in time, rather, it represents a continuum of succession and development between habitat types since the last major disturbance. For example, the fire-adapted chaparral habitats may replace a burned forest, but over time the neighboring forest could eventually encroach, overshadow, and replace the chaparral.

Intense wildfires drastically alter watershed runoff. Intense wildfires can reduce the soil's water storage capacity through the removal of vegetation and litter that would generally absorb precipitation and through the creation of subsurface hydrophobic soils (Geertsema and Highland 2011; Moody and Martin 2001; Cannon et al. 2003). Hydrophobic soils can be created during high-intensity fires on coarse-textured soils topped with a thick layer of acidic plant litter; during an intense fire's prolonged high temperatures, the plant litter's resins, oils, and fats are vaporized and these vapors condense below the soil's surface where its cooler to create a hydrophobic layer (Geertsema and Highland 2011). As a result, high intensity fires can create soils with limited water uptake capacity, loose ash and debris at the soil's surface, and a hydrophobic layer 1 to 10 centimeters below the surface. When it rains on these burnt environments with steep slopes and hydrophobic soils, massive debris flows can occur, especially in mountainous areas.

Modern Human Influence on Wildfire

Humans have drastically increased fire frequency. Humans were determined the cause of 82% of US fires from 1992 to 2012 (Balch et al. 2017). CAL FIRE reported humans caused 57 percent of the fires in 2021, including the determination that electrical power caused 7% of the fires (CAL FIRE 2021). However, CAL FIRE's 57 percent statistic excludes the following causes for fire: lightening (3% of the time), miscellaneous (25% of the time), and undetermined (16% of the time); the miscellaneous and undetermined fires could have also been caused by humans.

Prior to human intervention, a fire would more commonly burn through forest understory vegetation and extinguish before reaching the canopy. The legacy of land management practice, fire suppression, has contributed to an immense buildup of forest fuels and a resulting higher probability of a fire igniting the canopy for severe, stand-replacing fires (Westerling et al. 2006). Thus, legacy fire suppression has shifted California's environmental setting to experience increased fire frequency, intensity, and severity that impacts ecological, economic, and human health (California Board of Forestry and Fire Protection and California Department of Forestry and Fire Prevention 2018).

Invasive plant species have also altered the natural fire regime. Disturbance is a primary driver in facilitating the dominance of invasive species (Schooler et al. 2010). Many California invasive plants are annuals adapted to a more frequent and intense regime of disturbance compared to the native flora. The invasive annual plants are flammable during the driest parts of the year and their seeds are capable of germinating in the spring following fire. Invasive species are typically prevalent in developed and disturbed areas. Coincidently, the burned natural landscapes along Wildland Urban Interface are especially susceptible to invasive species. Between 1990 and 2010 nationwide, the number of houses in the Wildland Urban Interface increased by 41 percent (Radeloff et al. 2018). Invasive annual plant species can set seed in their first year, whereas native woody species take years to mature and reproduce (Keeley 2001). As a result, a fire could kill native woody species and initiate germination of their progeny the following year after the fire. If invasive plant seeds are disbursed into the burned landscape and germinate the following year after fire, the dry invasive biomass could contribute fuel for a second subsequent year of fire, which could extirpate the native species before they set seed; however, the invasive would have been able to set seed, which can create an environment that supports frequent fires. In conclusion, the frequently disturbed and invaded landscapes can produce large quantities of flammable invasive plant biomass annually, which can increase the probability the location burns.

Climate Change Exacerbates Wildfire

Climate change is anticipated to result in higher temperatures, longer droughts, and more intense precipitation and flooding events (Mann and Gleick 2015); despite the forecasted increases in precipitation and flooding events, the anticipate higher temperatures and longer droughts will increase wildfire frequency. Wildfires tend to be larger under drier atmospheric conditions with drier fuel sources (Balch et al. 2017). Climate change's increases in temperature have resulted in earlier spring snowmelt and a longer dry season, which is coupled with a lower overall precipitation (Westerling et al. 2006). Therefore, climate change is likely to exacerbate California's wildfire severity, intensity, and frequency through creating hotter, drier environments capable of supporting larger fires.

The largest and most destructive wildfires in California's history have occurred in the past 10 years as reported in Table 3.20-1 below. Climate change will continue to perturb environmental conditions and facilitate longer fire seasons and drier conditions.

Table 3.20-1: Top 10 Largest Fires in California (Includes Federal, State, and Local responsibility)

Fire Name (*Cause*)	Date	County	Acres	Structures	Deaths
1. August Complex *(Lightning)*	August 2020	Mendocino, Humboldt, Trinity, Tehama, Glenn, Lake, & Colusa	1,032,648	935	1
2. Dixie *(Powerlines)*	July 2021	Butte, Plumas, Lassen, Shasta & Tehama	963,309	1,311	1
3. Mendocino Complex *(Human Related)*	July 2018	Colusa, Lake, Mendocino & Glenn	459,123	280	1
4. SCU Lightning Complex *(Lightning)*	August 2020	Stanislaus, Santa Clara, Alameda, Contra Costa, & San Joaquin	396,625	225	0
5. Creek *(Undetermined)*	September 2020	Fresno & Madera	379,895	858	0
6. LNU Lightning Complex *(Lightning/Arson)*	August 2020	Napa, Solano, Sonoma, Yolo, Lake, & Colusa	363,220	1,491	6
7. North Complex *(Lightning)*	August 2020	Butte, Plumas & Yuba	318,935	2,352	15
8. Thomas *(Powerlines)*	December 2017	Ventura & Santa Barbara	281,893	1,060	2
9. Cedar *(Human Related)*	October 2003	San Diego	273,246	2,820	15
10. Rush (*Lightning*)	August 2012	Lassen	271,911: CA; 43,666: NV	0	0

Source: CALFIRE, 2022b

3.20.4 Impact Analysis

Methods of Analysis

Project Activity impacts on wildfire risk were qualitatively assessed based on professional judgment. The baseline includes the risk of wildfire posed by electric infrastructure as it existed at the time of the Notice of Preparation. The General Order does not include the expansion of electrical infrastructure into new areas. The analysis assumes that Utility Services will implement General Order requirements, mitigation measures (as applicable), and BMPs that comply with relevant federal, state, and local ordinances and regulations to the extent the project is subject to them.

Thresholds of Significance

Standards of significance were derived from Appendix G of the CEQA Guidelines. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, projects permitted under the General Order would have significant impacts if the project:

1. Substantially impairs an adopted emergency response plan or emergency evacuation plan;
2. Due to slope, prevailing winds, or other factors, exacerbates wildfire risks, and thereby exposes project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
3. Requires the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or
4. Exposes people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Impacts and Mitigation Measures

An EIR needs to analyze only an adverse change in the environment. (Pub. Resources Code, §§ 21068, 21100.) Project Activities authorized under the General Order are designed to reduce wildfire risk associated with utility infrastructure. Even operation and maintenance activities that are not specifically designated as wildfire mitigation activity reduce the risk of wildfire because faulty or uninspected equipment increases the risk of wildfire. Therefore, applying the thresholds of significance identified above, adoption of the General Order will result in **no impacts** to wildfire risk.

4.0 OTHER CEQA CONSIDERATIONS

4.1 Overview

This chapter addresses cumulative impacts, growth-inducing impacts, and significant irreversible environmental changes, the discussion of which is required by CEQA Guidelines Section 15126.2 subdivisions (b) and (d).

4.2 Cumulative Impacts

CEQA requires an evaluation of a proposed project's potential to contribute to cumulative effects in the Project Area. Cumulative impact refers to two or more individual effects that, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable, probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. The purpose of the cumulative effects analysis is to determine whether the proposed project's incremental contribution is cumulatively considerable and thus significant.

A cumulative effects analysis broadens the scope of the analysis to include effects beyond those attributable solely to the implementation of the project. The process of analyzing cumulative effects, or impacts, requires consideration of cumulative effects in each of the resource categories in the EIR. The incorporation of a cumulative effects analysis also aids in the development of alternatives and appropriate mitigation measures.

The status of affected resources is based on the information provided in Chapter 3 – Impact Analysis. The geographic boundaries of the cumulative effects area were determined based on the nature of the resources affected and the distance that such effects may travel and impact waters of the state. As an example, increased sedimentation of waterways that results from a project is limited to the watershed in which sedimentation increases. Therefore, it is only necessary to examine water quality effects within that watershed. In contrast, air quality emissions from a project can travel far greater distances and, therefore, could necessitate analyses on county, air basin, or regional levels. For some resources (e.g., biological resources, cultural resources), smaller, natural, or cultural boundaries are used for the analysis.

4.2.1 Approach to Analysis

The analysis addresses the change in the environment that results from the incremental impact of a project when added to other closely related past, present, or reasonably foreseeable, probable future projects. There are two approaches to identifying cumulative projects and their associated impacts. The list approach identifies individual projects in order to identify potential cumulative impacts. The projection approach uses a summary of projections in adopted general plans or related planning documents to identify potential cumulative impacts. This EIR uses a combined approach, evaluating a representative subsample of projects that include activities similar to the proposed Project Activities, as well as an evaluation of existing plans. There are several reasons for this approach. First, the Project Area covers a large and diverse geographic area and numerous local jurisdictions, each of which establishes land use plans and determines whether projects within their jurisdictions would be approved and proceed to construction. Second, the Project Activities described in Chapter 2 – Project Description, does not include project-specifics, including project location, project acreages, and project timing, because this General Order would authorize future Project Activities proposed for enrollment by Utility Services. Project Activities could be implemented concurrently with other construction projects implemented by both public and private entities.

4.2.2 Related Current and Past Projects

The cumulative impact analysis used a combination approach and evaluated a representative subsample of projects that include activities similar to the proposed Project Activities, in addition to a list of plans. However, this General Order's cumulative effects assessment first must consider California's environmental baseline as it relates to ongoing electrical utility work and California forest fire regimes. First, some Utility Service wildfire mitigation and operation and maintenance that would be included in covered Project Activities have already been conducted and resulted in disturbances. Operations and maintenance must be conducted on Utility Service infrastructures for the life of the equipment (i.e., years to decades). The General Order would facilitate the pace and scale of such operations and maintenance and wildfire mitigation and response, and this EIR focused its analysis on the incremental increase in Project Activities.

Second, California's natural fire regimes have been altered through historic land management practices to create the potential for more frequent catastrophic fires. Fire is a cyclic driving force in ecosystem establishment and succession. Each ecosystem is adapted to a respective fire-regime, with frequency and intensity varying by region and habitat. Prior to human intervention, a fire would more commonly burn through forest understory vegetation and extinguish before reaching the canopy. The legacy of fire suppression land management practices has contributed to an immense buildup of

forest fuels, which has resulted in a higher probability of fires igniting the forest canopy for severe, stand-replacing fires (Westerling et al. 2006). The suppression of fires has degraded, damaged, or destroyed native fire-adapted plant communities, leaving them vulnerable to extirpation by invasive species that can persist annually with severe fires. Thus, legacy fire suppression has shifted California's environmental setting to experience increased fire severity that impacts ecological, economic, and human health (California Board of Forestry and Fire Protection 2018). Therefore, this General Order's analysis of cumulative impacts incorporates the understanding that California's baseline environment has a significant fuel load capable of severe fires, risking human health.

To assess the potential cumulative impacts from this General Order, in combination with other related actions, similar projects and plans that are collectively working to reduce the risk of severe fires and/or provide essential services to the public were analyzed. The following list describes plans currently being implemented related to wildfire mitigation and forest management statewide.

- CAL FIRE's Vegetation Management Program (2022a)
- CAL FIRE's California Forest Improvement Program (2022b)
- US Department of Agriculture's National Cohesive Wildland Fire Management Strategy (US Department of Agriculture and US Department of Interior 2014)
- CAL FIRE's Final Program EIR for the California Vegetation Treatment Program (2019)
- Timber Harvest Plans, which are required for proposed timber harvesting on non-federal land and are subject to several permitting and mechanisms under Forest Practice Rules with CAL FIRE as the lead agency.
- Public Resources Code 4291 mandates a defensible space of 100 feet around all buildings on non-federal state responsible areas, non-federal forest-covered lands, and brush, grass-covered, or any lands covered with flammable material.
- CAL FIRE's eight Demonstration Forests encompass 72,000 acres, grow approximately 75 million board feet per year, and support the harvest of approximately 20 million board feet each year. The Demonstration Forests also host research and demonstration projects on forest management.
- Executive Order B-42-17 expedites the removal of dead and dying trees by allowing Licensed Timber Operators to conduct tree removal, which previously required a tree service contractor's license. Attributed to drought stress, competition for water, and pests, California contains millions of dead or dying trees that are potential fire fuel.
- Executive Order N-05-19 recommends immediate, medium, and long-term actions to help prevent destructive forest fires. The immediate actions have a focus on protecting populations that are especially vulnerable to destructive fires from a backlog in fuels management.
- The 2030 Natural and Working Lands Climate Change Implementation Plan recognizes the amount of carbon released by wildfires contributes to climate

change and directs vegetation management practices to reduce fuel load (California Air Resources Board et al 2018).

- The California Forest Carbon Plan targets carbon storage and reducing fire-related greenhouse gas emissions through bolstering forest resilience via restoration and fuels management (Forest Climate Action Team 2018).
- Pacific Gas and Electric's San Joaquin Valley Operation and Maintenance Habitat Conservation Plan (California Department of Fish and Game 2006).
- Pacific Gas and Electric's Draft Multiple Region Operation and Maintenance Habitat Conservation Plan (2019).
- Pacific Gas and Electric's Bay Area Operations and Maintenance Environmental Impact Report (2020).
- State Water Board's Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the US Army Corps of Engineers to be Outside of Federal Jurisdiction (Water Quality Order Number 2004-0004-DWQ)

Additionally, the Water Boards currently issues permits for some electric utility activities that will be covered by the General Order. Table 4-1 below is a summary of electric utility projects regulated by the Water Boards' WQC program over the past five years. Utilities are required to fully restore temporary impacts to pre-project conditions. Permanent impacts are offset through a beneficial project.

Data from previous permits provides a limited reflection of activities that will be authorized by the General Order because the data are limited to those that result in a direct impact to surface waters. Because ground disturbing activities on steep slopes and moderately erodible soils may also impact water quality, the General Order covers activities in these settings in addition to those that require work within the boundaries of a waterbody. Though the data are limited because projects are not tracked in accordance with the General Order scope, the data provides an idea of the number of related projects regulated by the Water Boards, associated impacts to surface waters, and shows that the Water Boards does not generally authorize large amounts of permanent impacts for electric utility activities.

Table 4-1: Impacts From Electric Utility Activities Authorized by Project Year

Year	Projects (N)	Temporary Impacts (Acres)	Permanent Impacts (Acres)
2023	19	44.15	1.51
2022	23	8.80	0.53
2021	23	16.59	2.01
2020	23	36.68	0.21
2019	19	6.77	0.48

Source: State Water Board (2019-2023)

In addition, the Water Boards authorizes specific, small, electric utility activities through enrollment under an existing General Order that certifies a subset of the US Army Corps of Engineers Nationwide Permit 57 for Electric Utility Line Activities (Certification of Nationwide Permit 57; Order No. 2020-0039-EXEC). Projects eligible for the Certification of Nationwide Permit 57 will continue to be authorized under that exemption, but the authorized impact quantities reflect a similar relationship between temporary and permanent impacts. Table 4-2 shows the number and acreage of direct impacts to waters from Certification of Nationwide Permit 57 enrollees between 2019 and 2023.

Table 4-2: Nationwide Permit 57 Impacts to Waters

Year	Projects (N)	Temporary Impacts (Acres)	Permanent Impacts (Acres)
2023	61	3.23	0.008
2022	41	1.11	0.013
2021	10	0.84	0.013

Source: State Water Board (2019-2023)

Specific examples of projects similar to those referenced above that have been permitted by the Water Boards are presented in Table 4-3: Related Historical Documents below. The table shows historical projects authorized by the Regional Water Boards that required water quality certification authorization and serve as an example of future, similar projects that may be eligible for General Order coverage.

Table 4-3: Related Historical Documents

Region	Effective Year	Project Name	Project Description	Impact Quantity[6]	County
1	2023	5G83 North Weed-Part 3 Reconductor Project	Replacement of three wooden electric utility poles.	Temporary: 1,899 linear feet, 0.64 acres to wetlands. Permanent: 4 linear feet, 0.001 acres to wetlands	Siskiyou
1	2020	PG&E Rio Dell Junction-Bridgeville Structure 038/007	Restore areas impacted by previous unauthorized PG&E activities by excavating unauthorized fill to two tributaries, revegetating riparian and upland areas, grading hillside areas, and decommissioning the access road.	Temporary: 0.0449 acres, 67 linear feet to stream channel	Humboldt
2	2023	Ignacio Mare Island Phase 2 Tower Replacement Project, Marin and Sonoma Counties	Reconstruct four electrical transmission towers across Marin and Sonoma counties. The four existing electrical towers are in danger of failure on the Ignacio-Mare Island circuit and need replacement.	Temporary: 3.74 acres to ocean/bay estuary Permanent: 0.003 acres to wetlands	Marin Sonoma

[6] Impact quantities show direct dredge or fill discharges of fill to waters of the state. Temporary impacts are fully restored to pre-project conditions. Permanent impacts are offset by compensatory mitigation.

Region	Effective Year	Project Name	Project Description	Impact Quantity[6]	County
2	2020	2019 Bay Waters Boardwalk Maintenance Project	Replace approximately 98,330 feet of existing boardwalks and decommission approximately 4,380 feet of existing boardwalk.	Temporary: 20.42 acres, 102,710 linear feet to wetlands. Permanent: 0.05 acres to wetlands	San Mateo
3	2011	PG&E 70 kV Power Line Reconductoring Project	Improve transmission reliability by replacing existing poles. The project entails installing seven temporary bridge stream crossings, one temporary culvert, and one permanent culvert; replacing 132 wood poles with new low-density steel (LDS) poles; and replacing 36 new lattice steel towers.	Temporary: 0.003 acres to stream channels.	San Luis Obispo

Region	Effective Year	Project Name	Project Description	Impact Quantity[6]	County
3	2011	PG&E Hollister 115 kV Power Line Reconductoring	Replace conductor wires, install new lattice steel towers, and replace wooden poles with a combination of tubular steel poles and light duty steel poles. In addition, upgrade the Hollister substation by relocating two existing poles, updating the relay settings, and changing the 115 kV bus conductors.	Temporary: 0.138 acres wetlands. Permanent: 0.08 acres to stream channels; 0.0014 acres to wetlands.	San Benito Monterey
4	2021	TD1585158/TD 1585161 Arroyo Seco Deteriorated Pole Replacement	Replace four deteriorated poles associated with two H-frame structures in the Arroyo Seco wash to ensure reliability to the power grid as mandated by the California Public Utilities Commission.	Temporary: 3.166 acres, 1465 linear feet to stream channels. Permanent: 0.001 acres, 16 linear feet to stream channels.	Los Angeles
4	2022	TD1721125 Gonzalez Deteriorated Pole Replacement Project	Replace one deteriorated pole with a new wood pole.	Temporary: 0.045 acres, 50 linear feet to wetlands. Permanent: 0.00009 acres, 2 linear feet to wetlands.	Ventura

Region	Effective Year	Project Name	Project Description	Impact Quantity[6]	County
5	2021	SMUD Bradshaw Road 69kV Extension Project	Replace 38 existing poles located in roadside ditches.	Temporary: 0.021 acres to wetlands. Permanent: 0.001 acres to wetlands.	Sacramento
5	2022	Pacific Power 5G76 Deetz Road Reconductoring Project	Perform maintenance on 3.09 miles of overhead distribution line, including reconductoring, pole replacement, and updating system protection. Existing wood poles were replaced with fiberglass. This project was done in accordance with Pacific Power's fire mitigation program and SB 901.	Temporary: 0.26 acres, 696 linear feet to wetlands. Permanent: 0.00009 acres, 5 linear feet to wetlands	Siskiyou
6	2021	Liberty Utilities Bridge Tract Christmas Valley Wildfire Prevention	Improve one mile of powerline approximately parallel to the Upper Truckee River in Christmas Valley to prevent utility-caused wildfires. Twenty-four power poles were replaced, the line was reconductored, and other minor upgrades were made.	Permanent: 0.001 acres to wetlands.	El Dorado

Region	Effective Year	Project Name	Project Description	Impact Quantity[6]	County
6	2024	Southern California Edison TD1750719 and TD1750720 Power Plant Tioga Pole Replacement	Remove and replace four wood H-frame transmission poles.	Temporary: 1.62 acres, 720 linear feet to wetlands	Mono
7	2020	Southern California Edison Pioneertown 12kV Rural/Yucca Valley Distribution Substation	Install 11 new interest poles along an existing circuit along Pioneertown Road.	Temporary: 0.447 acres, 636 linear feet to stream channels. Permanent: 0.002 acres, 33 linear feet to stream channels.	San Bernardino
7	2021	Southern California Edison Havasu Landing Whipple 66 Kilovolt Sub transmission Line Infrastructure Replacement Project	Replace 1 wood pole with 1 tubular steel pole, and to install 12 guy wire anchor points for 7 of the new poles, develop two construction laydown yards, replace 10.33 miles of cable for the entire alignment, and performing maintenance blading of the existing maintenance roads as needed.	Temporary: 0.19 acres to stream channels	San Bernardino

Region	Effective Year	Project Name	Project Description	Impact Quantity[6]	County
8	2016	Southern California Edison Prado Dam (TD531381) Area Deteriorated Pole Replacement Project	Replace five deteriorated wooden power poles.	Temporary: 0.021 acres, 60 linear feet to wetlands	San Bernardino
8	2019	SCE Cardiff-Greenspot SAR 33kV Pole Replacement	Remove eight deteriorated wood poles on the Cardiff-Greenspot SAR 33kV and replace them with seven light-weight steel poles, and improve the existing access road.	Permanent: 0.039 acres, 107 linear feet to stream channels	San Bernardino
9	2020	SDG&E eTS 21206 Access Road Repair Marine Corps Air Station Miramar Project	Repair and improve four locations on a maintenance access road.	Temporary: 0.005 acres, 70 linear feet to stream channels. Permanent: 0.023 acres, 192 linear feet to stream channels.	San Diego

Region	Effective Year	Project Name	Project Description	Impact Quantity[6]	County
9	2019	SDG&E Power Line Replacement Projects- TL 625 Project	Replace and reconductor existing power lines and distribution lines to reduce fire risk. Wood poles were replaced with steel poles, while other parts of the line were relocated, removed, or undergrounded.	Temporary: 0.05 acres to wetlands Permanent: 0.0003 acres to wetlands	San Diego

Source: State Water Board (2019-2023)

4.2.3 Cumulative Effect Analysis

CEQA requires that an EIR analyze a project's contribution to a cumulative impact when that contribution would be cumulatively considerable, meaning that it is considerable (i.e., significant) when viewed in connection with the effects of other past, current, and probable future projects (CEQA Guidelines § 15130, subds. (a) & (b)). This requirement ensures that EIRs fully analyze any project effects that are less than significant on an incremental (i.e., project-specific) scale but may be considerable in combination with the related effects of other projects. The requirement also serves to focus EIR analysis only on those cumulative impacts to which a project has the potential to make an important contribution.

In practice, the lead agency typically identifies past, current, and foreseeable projects and programs related to the undertaking being analyzed and evaluates their cumulative effects on the environment. If any cumulative impacts are identified as significant, the lead agency must then assess the degree to which the proposed undertaking would contribute to those impacts and identify ways of avoiding or reducing any contribution evaluated as "cumulatively considerable" (CEQA Guidelines § 15130, subd. (b)). This analysis used the summary of planning projections approach to identify existing and foreseeable cumulative impacts (based on local jurisdiction general plans and prior project experience) that may occur in the Project Area.

Aesthetics

As noted above, California's natural fire regimes have been altered through historic land management practices to create the potential for more frequent catastrophic fires. As fires. Particularly in response to megafires in the last decade, forest management practices have begun to include more prescribed burns, more vegetation management,

and defensible spaces. Aside from utility companies, it is likely that state and federal agencies, municipalities, timber companies, and private landowners will undertake additional vegetation management projects. As a result, it is likely that some landscape views, particularly of forests and other undeveloped areas, will, by design, be altered to be less dense and may change the type of vegetation. These alterations may not necessarily be adverse, but because the Project Area is statement and vegetation management activities may occur near sensitive receptors, this analysis conservatively assumes that the changes may be potentially significant. Changes to reflective surfaces, such as changing wooden utility poles to light-duty steel poles, can be mitigated to less than significant on an individual project basis and are not expected to result in cumulative changes in reflective surfaces. In contrast to vegetation management, changing to more reflective surfaces is unlikely to be undertaken by other similar projects by state and federal agencies, municipalities, timber companies, and private landowners.

In cases of replacement of the replacement of wooden utility poles with light-duty steel poles, there would be a potentially significant change in the visual setting. Mitigation Measure AES-1 would mitigate this effect to be less than significant through designing the project to minimize impacts to the site's visual character in sensitive landscapes and utilize, to the extent feasible, non-reflective material. Implementation of Project Activities authorized under the General Order, in conjunction with other projects that may be occurring in the area, may contribute to cumulative impacts to visual resources or degrade the existing visual character of quality of the area, but is unlikely to have cumulative impacts that create new sources of substantial light or glare depending on location relative to unique physical features, visibility of those features from public vantage points, and access to those vantage points.

Without project-specific details regarding location and scope, there is inherent uncertainty regarding whether any mitigation measures would be feasible that may ultimately be implemented to reduce potentially significant impacts. However, it is likely that there would not be a feasible mitigation measure for an impact such as loss of forest density or substantial alteration in vegetation that changes the visual character. Consequently, this analysis takes a conservative approach in its post-mitigation significance conclusion and discloses, for CEQA compliance purposes, that aesthetic impacts resulting from increased frequency of Project Activities authorized under this General Order and other similar vegetation management projects could be potentially significant and unavoidable.

Agriculture and Forestry

The principal cumulative effect related to agricultural resources would be conversion of agricultural land to nonagricultural uses. California contains approximately 33 million acres of forest out of the 104 million acres in California; approximately 60% of the forested land is owned by federal, state, and local agencies with the remaining under private ownership. Totaling those who participated in the 2019 Open-Space Subvention

Surveys, 12,250,309 acres were devoted to open space or agriculture in 2019 (California Department of Conservation 2021).

Project Activities would be located in waters of the state or in areas where activities could discharge to waters of the state. Project Activities are not anticipated to result in agricultural land conversion because the infrastructure is preexisting, and Project Activities would primarily be contained to the existing ROW. Any agricultural interface with Utility Service infrastructure would be a part of the site's baseline environmental conditions. Vegetation management would primarily occur along Utility Service ROWs, of which a portion may abut forested areas; the vegetation management will not convert land use to non-forestry use or result in the loss of forestlands that could permanently alter the landscape. The unintended loss of agricultural land resulting from Project Activities authorized under the General Order throughout the Project Area would be a negligible amount of the total agricultural land and would not constitute a cumulatively considerable contribution to agricultural land conversion. Project Activities would not conflict with Williamson Act contracts and or result in the loss of forest land, timberland, or designated Timberland Production Zones. Therefore, issuance of the General Order would not result in cumulative impacts to forestry and agricultural resources.

Air Quality

The Project Area contains all of the California Air Districts. As described in Section 3.3 Air Quality, Table 3.3-2 shows the current federal and state attainment statuses for the air districts. Note that nonattainment status for ozone, particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$), and particulate matter less than or equal to 10 microns in diameter (PM_{10}), represents a significant cumulative impact on air quality within the Project Area.

As described in Table 3.3-2, much of the Project Area is in nonattainment for federal and state ozone, $PM_{2.5}$, and PM_{10} standards. Significant cumulative impacts are thus considered to exist for the pollutants.

Because existing cumulative impacts have been identified for regulated criteria pollutants, analysis of cumulative impacts on air quality must address the following two independent but related issues:

1. the potential for emissions of ozone precursors, $PM_{2.5,}$ and PM_{10} during Project Activities to constitute a cumulatively considerable contribution to existing impacts; and
2. the potential for emissions of other pollutants from Project Activities to create a new, additive cumulative impact for pollutants other than ozone precursors, $PM_{2.5,}$ and PM_{10}.

These questions are considered separately in the following sections. Analysis focuses on Project Activities, which are expected to be the only sources of pollutant emissions associated with the project.

Contribution to Existing Cumulative Air Quality Impacts

Several types of equipment routinely used in Project Activities emit ozone precursors, including vehicles for access, heavy trucks for transporting equipment and hauling materials, heavy construction equipment, and small power equipment.

Particulate matter (i.e., fugitive dust) would be generated during ground-disturbing activities (e.g., vegetation removal, excavation, and fill placement) and by vehicles and equipment traveling on unpaved roads and off-road. Vehicle and equipment exhaust gases (i.e., tailpipe emissions) would also contribute a small amount of particulate matter.

As discussed in Section 3.3 Air Quality, it is not possible to predict the precise numbers and types of vehicles needed or the duration and frequency of their use, but it is anticipated that Project Activities would continue at an increased frequency, but maintain similar activity types as their current manner, with the same environmental commitments and regulatory compliance protections in place. Individual activities would continue to be short-term and intermittent. Therefore, Utility Service wildfire mitigation activities authorized by the issuance of the General Order should not cause a cumulatively considerable net increase of any of these criteria pollutants.

Potential for New, Additive Cumulative Effects on Air Quality

In addition to ozone precursors and particulate matter, the other principal pollutant likely to be generated by Project Activities authorized under the WQC and WDR is carbon monoxide (CO).

Project Activities would generate small increases in CO levels principally, if not exclusively, as a component of tailpipe emissions. Because vehicle and equipment use would be intermittent and short-term, with substantially more downtime than time in operation, additive cumulative effects would be less than significant.

Biological Resources

The Project Area has been subject to significant cumulative loss and degradation of habitat in the past 150 years of land use practices. Conversion to agriculture and urbanization have been primary factors in the loss of the state's natural communities. The Project Area's aquatic habitats have been affected by various types of pollutants, including agricultural and petrochemicals, pollutants delivered via urban runoff, and increased sediment delivery resulting from ground disturbance for construction and agriculture.

As discussed in Section 3.4 Biological Resources and Section 3.10 Hydrology, the Utility Services would be required to avoid and minimize effects on aquatic natural habitats to the extent practicable and would obtain individual Incidental Take Permits from the CDFW, as needed. Although aquatic habitats could also be further degraded as a result of in-channel maintenance activities, impacts would be limited to very small areas primarily within Utility Service ROWs, and the Utility Service would be required to avoid and minimize impacts from Project Activities, including compensatory mitigation for loss of waters of the state. Thus, impacts on aquatic, wetland, and riparian habitats, would be less than cumulatively considerable.

As described in Section 3.4 Biological Resources, implementation of Project Activities would contribute incrementally to cumulative impacts of temporary and permanent loss of habitat for the species potentially affected by Project Activities. These are impacts for which Mitigation Measure BIO-1 would be required and the impacts would be less than cumulatively considerable (CEQA Guidelines § 15130, subd. (a)(3)).

As discussed in Section 3.4 Biological Resources, the Project Area supports special-status plant and wildlife species that are not currently listed for protection under the federal Endangered Species Act or California Endangered Species Act. These species are known to occur or may occur where Project Activities have potential to result in injury, mortality, and/or loss of habitat and habitat connectivity. Under the proposed General Order, and through the application of Mitigation Measure BIO-1, Utility Services would be required to consult with the applicable agencies for potential impacts to special-status species, which would entail quantifying impacts, permit enrollment, and permit condition implementation. Therefore, impacts to special-status species would be permitted, mitigated, and Project Activities would be conducted in a manner that avoids and minimizes impacts to the extent feasible.

The acquisition, enhancement, management, and/or restoration of habitat to compensate for the loss of waters of the state, sensitive natural communities, and habitat occupied by special-status species, in accordance with agency permit authorizations would be required of enrollees under the General Order. With these protections and compensation mechanisms in place, the Project Activities authorized under the General Order are not expected to make a cumulatively considerable contribution to regional loss of natural habitats for any species that may be affected by the Project Activities authorized under the General Order. Thus, the proposed General Order is expected to result in a net long-term benefit of habitat preservation.

In summary, through the mitigation measure listed in Section 3.4 Biological Resources, Project Activities authorized under the General Order would not result in a cumulatively considerable contribution to cumulative impacts on special-status species, sensitive natural communities, corridors, or waters of the State in the Project Area. The General Order would also result in net long-term benefits to noncovered special-status species that use aquatic habitats.

Cultural Resources

Throughout California, the Native American cultural legacy, including culturally important sites and traditional cultural practices, has been substantially affected by land management practices since the 1850s. A significant cumulative impact is considered to exist regarding the loss of cultural resources and cultural heritage. Because some Project Activities would require ground disturbance, they would have the potential to contribute to this loss.

As discussed in Section 3.5 Cultural Resources, the principal concern is that ground disturbance required for some Project Activities would have the potential to damage or destroy buried cultural materials. While most of the Project Activities would be similar to ongoing existing operation and maintenance activities and disturb relatively small

footprints, primarily affecting ROW corridors that have already been disturbed, there is still the potential that additional disturbance could adversely affect unknown buried resources. General Order requirements may avoid or minimize the impact to cultural resources. Individual projects subject to the tribal cultural resources requirements in the General Order would be required to comply with additional protective measures, as described in Section 3.18, including conducting a records search to identify any potentially affected historical, archaeological, and tribal cultural resources, and consulting with any affected tribes. The General Order does not authorize any activity adversely impacting an important historical or archaeological resource; disturbing any human remains; or eliminating important examples of the majority periods of California history or prehistory, unless the activity is authorized by the appropriate historical resource agencies.

Consequently, there is some potential that Project Activities could contribute to a cumulative loss of cultural resources in the program area. Effects would be avoided, minimized, and mitigated to the extent practicable, but because the extent and location of Project Activities are not known at this time, it is not possible to conclude that the General Order requirements or equally effective mitigation measures would reduce impacts to a less-than-significant level in all cases. Therefore, the cumulative impacts to cultural resources would be significant and unavoidable.

Energy

Project Activities would require energy consumption to power vehicles for transport, heavy equipment for construction and operation and maintenance, and equipment to conduct vegetation management. These Project Activities are conducted by Utility Services to provide efficient and reliable electricity to the public and are therefore considered essential. Analysis of Project Activities authorized under the General Order, and contribution of these activities to cumulative impacts to energy resources, focuses on impacts related to excess use of energy and conflict with state or local plans for renewable energy or energy efficiency. Project Activities consist of standard practices for Utility Services, and they are required to comply with regulations set forth by the Federal Energy Regulatory Commission, California Energy Commission, and CPUC.

The General Order does not affect the source of electricity. Project Activities include system hardening and may improve energy efficiency. These activities would not significantly contribute to a cumulative increase in energy use in the state. As a result, a cumulative impact would not result.

Geology and Soils

As discussed in Section 3.7 Geology and Soils, Project Activities authorized under the General Order would have the potential to discharge into waters of the State. Access would mainly be located in or immediately adjacent to existing ROWs, which have undergone varying degrees of disturbance, and most Project Activities would not permanently remove large amounts of topsoil. As a result, Project Activities are not

expected to make a cumulatively considerable contribution to loss of topsoil resources in the Project Area.

Potential temporary cumulative impacts from Project Activities include soil disturbance from excavation activities that could result in erosion, sedimentation, and possibly slope destabilization. However, the implementation of Mitigation Measure GEO-1, along with the requirements of the General Order, would mitigate the potential for impacts related to erosion, sedimentation, and slope destabilization. Additionally, the General Order also requires site specific restoration plans that include grading the area to pre-project contours and planting species native to the project area. As a result, temporary cumulative impacts are expected to be less than significant. Because any facilities installed as part of the Project Activities would be engineered to withstand potential geologic hazards and Mitigation Measure GEO-1 would be implemented to ensure projects adhere to all applicable utility and earthwork regulatory standards, no significant cumulative impact is anticipated. No septic tanks would be installed as a result of the program, so there would be no contribution to a cumulative impact.

Project Activities involving new ground disturbance could damage paleontological resources. However, the implementation of Mitigation Measures GEO-2 and GEO-3 would require a general project-level analysis for paleontological sensitive units and worker awareness training, including management of unanticipated paleontological resource discoveries, avoidance of areas of high sensitivity, and monitoring in sensitive locations, which would reduce impacts to a less-than-significant level after mitigation.

Consequently, although there is some potential for Project Activities to contribute to a cumulative loss of paleontological resources in the Project Area, the effects would be avoided, minimized, and mitigated to the extent practicable; any residual effect would be limited and would not represent a cumulatively considerable contribution, nor would it result in a significant new additive cumulative effect.

Greenhouse Gas Emissions

As discussed in Section 3.8 Greenhouse Gas Emissions (GHG), GHG emissions contributing to global climate change are attributable in large part to human activities associated with the combustion of fossil fuels, which produces carbon dioxide (CO_2) as a by-product. Project Activities permitted under the General Order would require transportation and construction activities that combust fossil fuels. These transportation and construction activities necessary for Project Activity implementation would generate CO_2, methane, and nitrous oxide, from diesel and gasoline combustion.

Numerous state and local agencies have adopted, or are currently drafting, climate action plans, and significance thresholds for GHG emissions that contribute to global climate change. Utility Services are required to comply with all applicable federal, state, and local air quality regulations. The Project Activities authorized under the General Order are not anticipated to substantially contribute to a cumulative impact that would conflict with plans, policies, or regulations that exist to reduce GHG emissions. Project

Activities would generate small amounts of GHG emissions, principally as a component of tailpipe emissions. Vehicle and equipment use would be intermittent and short term, with substantially more downtime than time in operation. Accordingly, Project Activities authorized under the General Order would not generate net GHG emissions, relative to existing conditions, that would have a cumulatively considerable impact.

Hazards and Hazardous Materials

Cumulative impacts related to hazards or hazardous materials could result from the Project Activities authorized in conjunction with other planned and proposed projects having an increased effect on public or worker safety. Increased exposure to hazardous materials, fire, or physical hazards could result. Nearly all Project Activities involve some use of petroleum products as fuel or lubricant. These are hazardous materials that can inadvertently be spilled during refueling, during operation or maintenance of equipment, or if equipment fails. Project Activities could take place close to schools. However, the likelihood of accidental spills and leaks occurring at the same time and in the same location is extremely small. In addition, compliance with Mitigation Measure HAZ-1, which requires Utility Services to comply with applicable state, federal, and local laws, regulations, and requirements pertaining to hazardous materials and hazardous wastes would be applicable to all projects enrolled under the General Order. These regulations establish legal requirements for hazardous materials storage, transportation and handling, and agency oversight. The Utility Services' compliance with Mitigation Measure HAZ-1 would greatly minimize any contribution to a potential cumulative impact.

As identified in Section 3.9, Figure 3.9-1: Wildland Urban Interface and Figure 3.9-2: Fire Threat Areas by County, the Project Area contains wildlife urban interface, which is especially at risk from wildfire. Project Activities are ongoing and will not change following approval of the General Order.

Project Activities could require temporary lane closures affecting emergency response or evacuation routes, but implementation of the Traffic Control Plan and local agency coordination described in Section 3.17 would minimize impacts to emergency response. Other construction projects could present similar impediments. However, due to the short-term nature of Project Activities, it is very unlikely that they would impair emergency routes at the same time and in the same area as other projects.

Assuming Utility Service compliance with existing regulations, and implementation of Mitigation Measure HAZ-1, Project Activities would not make a cumulatively considerable contribution to impacts related to hazards and hazardous materials.

Hydrology and Water Quality

Water resources in the Project Area are subject to several cumulative effects: continual modification of natural drainage patterns; degradation of surface water quality in drainage systems; and localized degradation of groundwater quality. Project Activities would not result in substantial drainage modifications and, thus, are not expected to make a considerable contribution to cumulative drainage modification impacts, nor

would it alter patterns of groundwater use or result in new demand for groundwater. This analysis therefore focuses on water quality issues.

Many Project Activities would result in some degree of ground disturbance with the potential to increase sediment delivery via runoff to surface water bodies. Increased sediment delivery is a potential concern because it can increase water turbidity, degrade habitat quality for some native species, alter stream function, and increase infrastructure and channel maintenance costs. As discussed in Section 3.10 Hydrology, Project Activities that disturb 1 acre or more, or are part of a greater plan of development that disturbs one acre or more, are required to obtain coverage under the Construction General Stormwater Permit, which requires preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). Project Activities not subject to the CGP would be required to develop and implement Erosion and Sediment Control Plans, which contain water quality measures similar to those in a SWPPP. The General Order additionally requires Project Activities to restore and stabilize disturbed areas by compacting disturbed soils and planting vegetative cover. Thus, from a water quality perspective, the effects of increased sediment loading as a result of work on land would not be cumulatively considerable.

In-channel work could increase sediment mobility and water turbidity, with some potential for adverse effects on water quality. Utility Services would be required to comply with General Order conditions specific to in-water work, which would limit potential impacts to water. Further, in-channel work is also strictly regulated under Section 1602 of the California Fish and Game Code, which requires development of a lake and streambed alteration agreement notification that includes specific commitments and measures to protect water quality during any in-channel work. In light of Utility Service compliance with statutes, regulations, and potential permits, and considering General Order conditions that are intended to protect water quality, water quality impacts associated with individual activities would be minor. The long-term additive effect of in-channel work, and the project's contribution to regional water quality concerns also would be minor. No cumulatively considerable contribution would result from in-channel work, nor is the likely level of increase expected to create a significant additive cumulative effect on systems not already identified as impaired.

In light of the Utility Services' preparation of a SWPPP or Erosion and Sediment Control Plan for Project Activities and implementation of the requirements of the General Order, the potential for a cumulatively considerable contribution to regional water quality degradation in impaired systems would be minimal. The likely additive effect would not represent a significant cumulative impact in systems not already identified as impaired.

Land Use

Land use in the Project Area is evolving as urban centers continue to expand. This growth is guided by city and county general and specific plans and zoning ordinances. Project Activities would primarily occur in existing ROWs where Utility Service infrastructure is already located. Project Activities are not expected to require or result in the change of any land uses. Because Project Activities are inherently focused on use

and maintenance of these existing facilities, these activities would not result in any additive cumulative effect on land use.

Mineral Resources

As described in Section 3.12 Minerals, Project Activities would require a minimal amount of temporary ground disturbance primarily within or adjacent to existing ROWs or on utility-owned lands. These activities would not inhibit the ability to recover mineral resources in the future if such resources are determined to be present.

Thus, because Project Activities would not impact recovery of mineral resources, the activities authorized under the General Order would not make a considerable contribution to cumulative significant effects on mineral resources.

Noise

The two types of noise sources in the Project Area can be classified as transportation and non-transportation. Different land uses in the Project Area have differing levels of sensitivity to noise impacts. Urban and rapidly developing areas are typically subject to cumulative noise impacts, while agricultural and rural areas are much less likely to be affected. Because of the diversity of noise environments in the Project Area and the location of Project Activities with potential to discharge into waters of the state, a regional cumulative impact is not considered to exist.

As discussed in Section 3.13 Noise, Project Activities would be required to comply with Mitigation Measure NOI-01: Adherence to Noise Standards and Policies per the Applicable General Plan, Noise Ordinances, or Other Agency Regulations. Additionally, Project Activities would generally be temporary and of short duration. Further, the linear nature of Utility Service projects limits the duration any one receptor would be exposed to sound. Application of Mitigation Measure NOI-01 would ensure that Project Activities adhered to noise standards in applicable general plans, local noise ordinances, and other agency regulations. Due to the wide geographic distribution and short-term, intermittent nature of Project Activities, along with the application of Mitigation Measure NOI-01, a significant additive cumulative effect on noise conditions would not occur as a result of the issuance of the General Order.

Project Activities could result in impacts related to groundborne vibration or groundborne noise levels due to construction and earthmoving activities. As identified in Table 3.13-3: Human Response to Transient Vibration, vibration from most construction and earthmoving activities is typically below the “distinctly perceptible” threshold of 0.04 peak particle velocity for continuous sources of vibration. Considering the temporary nature of Project Activities, and assuming Utility Service implementation of Mitigation Measure NOI-1, there would not be a cumulatively considerable contribution to a significant impact to noise.

Population and Housing

As discussed in Section 3.14 Population and Housing, Project Activities are limited to existing infrastructure and would not expand electricity services into areas that do not already have it. None of these activities would have direct or indirect effects on population or housing. Therefore, the Project Activities authorized under the General Order would make no contribution to cumulative effects related to population and housing.

Public Services

Numerous public entities provide police protection, fire protection, schools, parks, and other public services and facilities in the Project Area. Project Activities would involve the continuation of existing activities and any demand on, or effects related to, public services would be part of baseline environmental conditions. Project Activities would not directly result in increased population that would increase the need for public services or facilities. In addition, Project Activities would be short-term in nature and would be spread throughout the state, which would limit impacts to the public services of any one community or specific area. The purpose of Project Activities is to increase the safety of all electric facilities and to provide safe and reliable power to customers. To the extent that fire protection is affected, Project Activities should have a positive effect on fire protection because they will reduce the risk of uncontrolled megafires. To the extent that electric utility infrastructure may be considered other public facilities, Project Activities should have a positive effect on service as system hardening will make electricity services more reliable and help to reduce any interruptions in service due to wildfire and would therefore not result in a significant additive cumulative effect on public services.

Recreation

Many recreational opportunities exist within the Project Area, and many contain already constructed electric facilities. Project Activities would potentially impact recreational facilities if temporary closure of a facility would be required for maintenance activities. Effects would be in discrete, separated locations throughout the Project Area, and the extent of the effects would be small. Even if the frequency of Project Activities increased, it is unlikely that Project Activities would occur in the same spot for a prolonged period so this impact to recreational opportunities would not significantly contribute to cumulative impacts. Project activities would not cause an increase in population to the Project Area and would therefore not contribute to a cumulative impact on recreational facilities because of overuse. Therefore, the Project Activities authorized under the General Order would not result in significant additive cumulative effect on recreation.

Transportation

Cumulative traffic concerns have been identified in urban areas and along heavily traveled highways, and major thoroughfares in the Project Area. While the state contains some densely congested areas, much of the work is anticipated to occur in rural areas and recently developed areas where roadway infrastructure is adequate for current and projected demand, are not subject to cumulative traffic impacts.

As discussed in Section 3.17 Transportation, Project Activities could require temporary closure of, or reduced access to, roads, bikeways, sidewalks, and bus routes while crews conduct Project Activities. Project Activities could also temporarily impede emergency access. These effects would be reduced through implementation of a Traffic Control plan and coordination with the respective agencies. The Traffic Control Plan would ensure that Project Activities do not unduly impede traffic flow or affect emergency response. Project Activities are not anticipated to increase the total vehicle miles traveled because they are ongoing and included in the baseline vehicle miles traveled for the Project Area. Because of their wide geographic distribution and the short-term, intermittent nature of Project Activities and their effect, the activities authorized under the General Order would not result in a significant additive cumulative effect on vehicular traffic or other transportation.

Tribal Cultural Resources

Tribal cultural resources are regionally specific and determined by local tribes. Cumulative impacts on tribal resources could result if multiple projects have a combined impact on the significance of tribal cultural resources (TCRs), which are defined in PRC Section 21074. Individual projects subject to the tribal cultural resources requirements in the General Order would be required to perform records searches to identify any potentially affected tribal cultural resources and where that search yielded a positive result, consult with any of the affected tribes upon request. During consultation, tribes could identify potential protective measures that could avoid or minimize the impact to tribal cultural resources.

Project Activities that are necessary to restore essential public services or facilities in response to ongoing or recent wildfire activity are subject to expedited requirements where power needs to be restored, impacts to tribal cultural resources are possible. These impacts would not include the impacts caused by the wildfire itself but rather the Project Activities necessary to restore utility services. Because the extent and location of Project Activities are not known at this time, it is not possible to conclude that the General Order requirements or equally effective mitigation measures would reduce significant cumulative impacts to a less-than-significant level in all cases. While the General Order requirements could mitigate impacts, the Project Activities authorized under the General Order could cumulatively result in significant and unavoidable impacts on tribal resources.

Utilities and Service Systems

Cumulative impacts on utilities or service systems could result if multiple projects have a combined impact on local utility services or infrastructure. Project Activities are required to support the safe and reliable supply of electric service to customers in the Project Area and would not result in significant impacts to electric service delivery systems. Because of their short-term nature and because they require little water or wastewater disposal, Project Activities would not require construction or expansion of water or wastewater treatment facilities and would have a negligible effect on the capacities of existing systems. No new electric power facilities would be constructed, but Project Activities would involve the in-kind replacement of existing infrastructure, which would

serve to protect the provision of electric power to electric utility customers. As discussed in Section 3.19 Utilities, Project Activities have been conducted in the Project Area for the life of the equipment and generate minimal amounts of solid waste. Therefore, the Project Activities authorized under the General Order would not result in a significant additive cumulative effect on utilities and service systems.

Wildfire
The Project Area contains regions that are considered to have moderate, high, or very high wildfire hazard severity risk, as identified in Figure 3.20-1: Fire Hazard Severity Zones Map. Cumulative impacts due to wildfire could result if multiple projects impaired emergency response plans or increased the risk of wildfire in the Project Area. Similarly, the operation of electrical facilities carries inherent wildfire risks due to the nature and location of these operational facilities. The Utility Services have committed to continuing to conduct Project Activities in such areas; these activities are conducted to keep facilities in proper working condition and to minimize public health and safety risks (including the risk of wildfire). Project Activities will reduce the risk of wildfire caused by utility infrastructure and not result in adverse effects to wildfire risk. Thus, any cumulative impacts would be less than significant.

4.3 Growth-Inducing Impacts

CEQA Guidelines require the analysis of a project's potential to induce growth. Specifically, Section 15126.2(d) requires that environmental documents "discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Furthermore, Section 15126.2(d) states that "it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment." Activities would not extend service areas in such a way that new homes or communities would be built. Therefore, there would be no growth-inducing impacts.

Although providing an essential service like electricity, which is needed for population growth, could be identified as "removing an obstacle to growth," such services do not by themselves create growth. Project Activities authorized under the General Order are more properly considered growth-accommodating rather than growth-inducing. Moreover, CEQA Guidelines Section 15126.2(d) explicitly cautions against assuming that growth is "necessarily beneficial, detrimental, or of little significance to the environment." In light of these considerations, the project's potential to induce growth would be less than significant.

4.4 Significant Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(c) requires that an EIR discuss the significant irreversible environmental changes that would be caused by this General Order should it be implemented. Irreversible changes may include the use of nonrenewable resources during construction and operation of Project Activities to such a degree that the use of

the resource thereafter becomes unlikely. The General Order would result in a minor irreversible commitment of fossil fuels for Project Activities because this Order would facilitate the pace and scale of Project Activities. The General Order would also likely result in construction waste related to earthmoving activities and generation of solid waste, such as equipment that has been replaced. The conditions set forth in the General Order include all feasible control measures to minimize waste and energy use, but construction and maintenance activities will inevitably result in some commitments of finite nonrenewable energy. In the context of increased frequency of intensity of wildfires statewide, however, the General Order would provide critical benefits to aquatic resource protection. And the commitments of finite nonrenewable energy for preventative wildfire activities could help avoid the use of even greater nonrenewable energy associated with catastrophic wildfires. Even where the irreversible environmental changes were significant, those changes would be justifiable. Because the General Order authorizes Project Activities for existing Utility Service infrastructure, not the installation or expansion into new service areas, it is not expected that the General Order would result in future irretrievable commitments of resources. Some Project Activities, such as replacing wooden poles with steel poles or undergrounding utility lines, would reduce the need for future maintenance activities.

5.0 ALTERNATIVES ANALYSIS

5.1 Introduction

In accordance with CEQA Guidelines section 15126.6, subdivision (c), this chapter considers the following factors in identifying a reasonable range of alternatives to the project:

- Does the alternative accomplish all or most of the primary project objectives?
- Is the alternative feasible from an economic, environmental, legal, social, and technological standpoint?
- Does the alternative avoid or lessen any significant negative environmental effects of the project?

This chapter compares the five alternatives described below to the preferred project Alternative 1, which is the General Order, as identified in Chapter 2's Project Description, and the reasonably foreseeable Project Activities that may be authorized under the General Order that are analyzed in Chapter 3's Impact Analysis. As described in Section 2's Project Description, the objectives of the General Order covered by the EIR are as follows:

- Support critical wildfire mitigation projects while establishing minimum standards that will ensure that wildfire prevention activities are also protective of water quality.
- Support the pace and scale of wildfire mitigation activities that are required under the mandate of Senate Bill 901.
- Provide statewide consistency of regulatory requirements and ensure compatibility between other required permits for electrical utility operation and maintenance activities.
- Expedite the permitting process for electrical utility operation and maintenance activities including the application review process.

The work permitted under the General Order includes activities that could result in discharge to waters of the state for which a water quality certification would be issued, pursuant to Section 401 of the Clean Water Act (CWA). The General Order also includes waste discharge requirements for the discharge of waste to waters of the state that are not subject to federal regulation under the CWA under the Porter-Cologne Water Quality Control Act. Aside from access route construction, the electrical utility infrastructure is already in place and would remain in its current location or in close proximity to Utility Service existing ROW. With these criteria in mind, the State Water Board considered alternatives that would meet the State Water Board's objectives while minimizing project-related environmental effects, including loss of waters of the state.

The Project Activities covered by the General Order are described in Chapter 2 Project Description. The General Order may be used throughout the state of California where Project Activities may result in a discharge to waters of the state. This chapter evaluates five alternatives, including the General Order.

5.2 Alternatives Considered

During the development of the alternatives, the State Water Board collaborated with the Utility Services, Regional Water Boards, and other stakeholders to identify potential alternatives to meet the identified objectives. Potential alternatives were screened based on their ability to feasibly attain most of the basic project objectives, feasibility, and their ability to reduce or eliminate any significant environmental impacts of the Order. In addition, the State Water Board excluded alternatives that would be outside of the State Water Board's authority, such as those that would conflict with minimum utility line and vegetation clearance requirements established by other agencies (e.g., CAL FIRE or the CPUC). The State Water Board did not include individual project-specific alternatives because individual project details are not yet known. Instead, this analysis focuses on how the General Order permit is structured. The following alternatives were considered for evaluation in the Environmental Impact Report (EIR):

- Alternative 1: The General Order as proposed that is a combined Section 401 Water Quality Certification and Waste Discharge Requirements
- Alternative 2: No Project
- Alternative 3: Fire Prevention Work Only (i.e., excludes postfire activities)
- Alternative 4: Permit Limited to Only High Fire Threat Districts
- Alternative 5: Create Separate Permits for In-Water Work (water quality certification) and out of water work (waste discharge requirements)

These alternatives were identified at the scoping meeting.

The following subsections describe the alternatives and discuss the rationale for their dismissal.

Alternative 2: No Project

State CEQA Guidelines section 15126.6, subdivision (e) provides that a No Project Alternative shall also be evaluated along with its impact. The No Project Alternative shall discuss existing conditions at the time the Notice of Preparation was published, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved. Alternative 2 would be to not issue the General Order and continue to permit project activities that are not eligible for enrollment in any existing general orders via individual orders. If the State Water Board did not issue the General Order, the project activities would need to obtain authorization under existing applicable certifications or obtain individual authorization. Existing certifications, such as the Nationwide Permit related to utility work and regional general permits applicable to emergencies, are limited in scope, including by limitations related to permanent impacts

or CEQA exemptions. In addition, waste discharge requirements would be required for some project activities even if there was not a discharge or dredged or fill material to waters of the United States. Accordingly, under the No Project Alternative, many project activities would require individual authorization in the form of a water quality certification, waste discharge requirements, or both. Such individual authorizations, even if a complete application is submitted in the first instance, which it is frequently not, typically takes a minimum of 60 days to issue. This time would be necessary to satisfy public notice requirements, review project specific documents, and where required, take the waste discharge requirements to the Regional Water Board for issuance. The process of issuing individual orders would be inefficient use of staff resources because the orders would contain similar conditions to avoid, minimize, and mitigate impacts to water qualities, but would require individual consideration each time. It is expected that the pace and scale of project activities will increase as utility services continue to undertake more wildfire prevention and response activities. Individual orders would not be efficient as the number of projects continues to increase. Further, for project activities that do not qualify as emergencies, there is not currently a process by which the utilities could begin project activities on an expedited timeframe. The individual order process could run the risk that activities that are necessary to restore utility services could be delayed.

The No Project Alternative would not result in less significant environmental impacts. Individual orders would also need to impose the mitigation measures identified in Chapter 3. Even with individual orders, substantial and unavoidable impacts may result from aesthetics, cultural, or tribal impacts. Where clearance standards have been modified upwards, aesthetics would continue to have substantial and unavoidable impacts. Individual orders for urgent activities, where there may not be sufficient time to search for potentially impacted resources, would continue to have substantial and unavoidable cultural and tribal impacts.

The No Project Alternative would not meet three of the project objectives. It would not support the increased pace and scale of wildfire mitigation activities, provide statewide consistency of regulatory requirements, or expediate the permitting process for electrical utility operation and maintenance activities.

Alternative 3: Fire Prevention Work Only

Alternative 3 would be to limit the scope of the General Order to cover only project activities necessary for fire prevention and exclude activities that may be necessary to conduct in response to a wildfire. Fire prevention work represents the initial need for streamlined permitting in the wildfire cycle. However, postfire work includes the urgent need to restore power and services to the public. Therefore, a General Order limited to wildfire prevention work would fail to address the need for streamlined permitting where project activities are necessary to respond to wildfire impacts, but may not qualify under existing emergency permits even though there could be a threat to life, safety or

property. Limiting the General Order to wildfire prevention work would be an inefficient use of staff resources because project activities for wildfire prevention and response are similar and pose a similar risk to water quality. Accordingly, the conditions applicable to project activities for wildfire prevention are similar to those for wildfire response. In addition, in some cases, it could be difficult to differentiate between project activities that are for wildfire prevention or response. For example, while a wildfire is ongoing, project activities may be necessary to limit the effects of the wildfire, which may be reasonably framed as either a prevention or response activity.

Limiting the General Order to wildfire prevention work could create different compliance expectations for wildfire prevention activities compared to similar operation and maintenance and wildfire response activities. If excluded from the scope of the General Order, compliance standards for non-prevention activities would need to be set by each Regional Water Board. Accordingly, the same activity would be held to different compliance expectations solely based on project purpose. For example, there is no meaningful distinction between roads built for the purposes of operation and maintenance and wildfire prevention. In both instances, similar design principles to ensure hydrologic disconnection of the road from nearby surface waters should be applied. Over time, consistent standards motivate industry-wide compliance and improved water quality, statewide.

Focusing on wildfire prevention only would not eliminate any of the identified potentially significant adverse impacts, but potential impacts could be less severe because fewer projects would be included in the General Order.

Alternative 3 would partially achieve two of the project objectives. Because Alternative 3 is limited to wildfire prevention activities it would provide statewide consistency of regulatory requirements for electrical utility wildfire prevention activities, but not for operation and maintenance activities or fire response activities. Similarly, it would provide an expedited permitting process for wildfire mitigation projects, but not electrical utility operation and maintenance activities or fire response activities.

Alternative 4: Limit Permit to Only High Fire Threat Districts

Alternative 4 would be to limit the scope of General Order to only areas that are designated High Fire-Threat Districts per the California Public Utilities Commission. The potential for catastrophic fire and a resulting loss of Utility Services is not limited to only High Fire Threat Areas. The boundaries of High Fire-Threat Districts also may evolve as conditions change. Environmental impacts from project activities, and the appropriate General Order conditions and feasible mitigation measures, are similar regardless of whether they are occurring in a High Fire-Threat District. As a result, limiting the scope of this General Order to High Fire-Threat Districts would reduce the efficiencies offered by the General order, but would not reduce the potential for environmental impacts from project activities permitted by the General Order. Additionally, Alternative 4 would result

in the same water quality impacts from inconsistent compliance standards that are described in Alternative 3.

Alternative 4 would partially achieve three of the project objectives. Although Alternative 4 would support critical wildfire mitigation projects, provide statewide consistency, and expedite the permitting process for wildfire mitigation and response activities within High Fire-Threat Districts, it would not accomplish these objectives for wildfire mitigation and response activities and operation and maintenance outside of High Fire-Threat Districts. As mentioned above, wildfire is not limited to High Fire-Threat Districts and accordingly Alternative 4 would not fully accomplish these project objectives.

Alternative 5: Create Separate Permits for In-Water Work (Water Quality Certification) and out-of-water work (Waste Discharge Requirements)

Alternative 5 would be to create separate permits for where there was a discharge of dredged or fill material to waters of the state, often referred to as in-water work, and where there is a discharge of waste that is not a discharge of dredged or fill material, referred to here as out-of-water work. Section 401 water quality certifications include conditions that are necessary to ensure that the whole of the project, including, but not limited to the discharge of dredged or fill material, will comply with certain provisions of the CWA and other appropriate requirements of state law. Thus, a General Order that is limited to a water quality certification would look similar to waste discharge requirements where there was not any in-water work. During the past several years, there have been several attempts to change the regulations for water quality certifications and litigation regarding those regulations. Prior to these regulatory changes, the appropriate scope of certification had been stable for decades. Now, there is less certainty regarding the appropriate scope of water quality certifications and whether that scope is subject to change in the future. These changes have occurred concurrently with continued uncertainty regarding the scope of waters of the United States, which affects whether a discharge is within the jurisdictional scope of the CWA. As a result, a standalone CWA certification could cause confusion as scope questions persist. In contrast, a combined waste discharge requirements and water quality certification could provide more stability and predictability as it would continue to cover activities despite the potential for ongoing changes.

This regulatory uncertainty increases the likelihood that dischargers proceed with work without seeking appropriate permits. Headwaters and ephemeral, transient, features are most vulnerable to impacts as a result of this uncertainty. Although these features are not as stable as perennial features that are always wet, impacts can ripple across the watershed.

Alternative 5 would achieve the project objectives but would only partially achieve the objective to expedite the permitting process. Under Alternative 5, electrical utilities might still need to obtain two different kinds of permit coverage where the proposed project would require only one. Because it would be more administratively burdensome and

potentially confusing for utility services to obtain coverage for two separate permits and to ensure compliance under two separate permits, Alternative 5 only partially achieves the objective of expediting regulatory coverage for electric services wildlife mitigation and response and operations and maintenance activities.

5.3 Environmentally Superior Alternative

CEQA Guidelines require the lead agency to identify the environmentally superior alternative, or the alternative that would least affect the environment while accomplishing project objectives. The environmentally superior alternative is identified through a comparison between environmental impacts of the alternatives analyzed. The range of potential alternatives of the project would include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects (CEQA Guidelines Section 15126.6(c)). The EIR should briefly describe the rationale for selecting the alternatives to be discussed. CEQA Guidelines Section 15126.6(e)(2) states that if the environmentally superior alternative is the No Project Alternative, then the EIR must also identify an environmentally superior alternative among the other alternatives.

Here, the No Project Alternative is not the environmentally superior alternative because without expedited permitting available, it is more likely that electrical utility services would proceed with a project without obtaining necessary authorizations. Even if the electrical utility services obtained all necessary permitting, including individual orders, when necessary, it is expected that the impacts would be similar to those under the Project. Similarly, Alternative 5 would result in the same impacts compared to the proposed project.

As discussed above, Alternatives 3 and 4 would result in similar impacts compared to the proposed project, but potentially at a lesser magnitude. Alternative 3 is limited to only wildfire mitigation activities, which would result in fewer projects being authorized under the General Order and therefore could result in fewer project activities and fewer impacts than under the other alternatives. Therefore, Alternative 3 would be the environmentally superior alternative. However, as described above, Alternative 3 would not fully achieve most of the project objectives. Limiting the General Order to wildfire prevention work would be an inefficient use of staff resources because the excluded wildfire response and operation and maintenance activities pose a similar risk to water quality, would require similar conditions, and unnecessarily expend resources attempting to discern whether the project is sufficiently related to wildfire prevention. Limiting the scope of the proposed project could cause delays in wildfire prevention, system hardening, and service restoration activities while not lessening any of the environmental, including water quality, impacts. Implementation of all the General Order conditions would minimize the potential for significant impacts of Alternative 3. However, as with the proposed project, the exact location and extent of projects that would be

permitted under Alternative 3 are not known at this time. Therefore, some of the project activity impacts would still be considered significant and unavoidable.

Therefore, the proposed Project is the preferred alternative because it has similar environmental impacts compared to the other alternatives, but is the only alternative that fully achieves all of the project objectives.

6.0 REFERENCES

6.1 Aesthetics

California Public Utilities Commission. August 2018. *Scenic Highways the CPUC's Role in Reviewing Deviation Requests to PU Code §320*. Available online at <https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_public_website/content/about_us/pp-presentation-for-puc-320-rev-1.pdf>. Accessed November 18, 2022.

National Wild and Scenic Rivers System. 2020. *About the WSR Act*. Available online at <https://www.rivers.gov/wsr-act.php>. Accessed March 1, 2022.

U.S. Bureau of Land Management. February 2008. *Sierra Resource Management Plan and Record of Decision*. Available online at <https://eplanning.blm.gov/public_projects/lup/72554/96712/116818/Sierra_PRMP_FEIS.pdf>. Accessed April 1, 2022.

6.2 Agriculture and Forestry Resources

California Department of Conservation. 2022. *The Williamson Act Status Report 2020*. Available online at <https://www.conservation.ca.gov/dlrp/wa/Documents/stats_reports/2022%20WA%20Status%20Report.pdf>. Accessed October 12, 2022.

6.3 Air Quality

California Air Resources Board. 2004. *2004 Revision to the California State Implementation Plan for Carbon Monoxide*. Available online at <https://ww3.arb.ca.gov/planning/sip/co/final_2004_co_plan_update.pdf>. Accessed November 21, 2022.

_____. May 4, 2016. *Ambient Air Quality Standards*. Available online at <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed October 12, 2022.

_____. October 2020. *Map of State and Federal Area Designations*. Available online at <http://www.arb.ca.gov/desig/adm/adm.htm>. Accessed October 12, 2022.

California Office of Environmental Health and Hazard Assessment. February 2015. *Air Toxics Hot Spots Program: Risk Assessment Guidelines and Guidance Manual for Preparation of Health Risk Assessments*. Available online at <https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf>. Accessed November 22, 2022.

6.4 Biological Resources

California Department of Fish and Wildlife. May 2016. *Complete List of Amphibian, Reptile, Bird and Mammal Species in California*. Available online at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=87155&inline>. Accessed February 1, 2022.

_____. 2022a. *Special Plant and Animal Lists*. Available online at <https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals>. Accessed February 1, 2022.

_____. 2022b. *California Natural Diversity Database, RareFind 5*. Available online at <https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data>. Accessed February 1, 2022.

_____. 2022c. *Natural Communities*. Available online at <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities>. Accessed February 1, 2022.

_____. 2022d. *Biogeographic Information and Observation System (BIOS)*. Available online at <https://wildlife.ca.gov/Data/BIOS>. Accessed February 1, 2022.

_____. 2022e. *Vegetation Classification and Mapping Program (VegCAMP)*. Available online at <https://wildlife.ca.gov/Data/VegCAMP>. Accessed February 1, 2022.

California State Water Resources Control Board. April 6, 2021. *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. Adopted April 2, 2019. Available online at <https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html>. Accessed February 1, 2022.

California Native Plant Society. 2022a. *Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.0)*. Available online at <https://rareplants.cnps.org/ Accessed February 1, 2022.

_____. 2022b. *A Manual of California Vegetation Online*. Available online at <https://vegetation.cnps.org Accessed January 14, 2022.

Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Unpublished document, California Department of Fish and Game Natural Heritage Division. Sacramento, CA.

Jepson Flora Project (eds.) 2022. *Jepson eFlora*. Available online at <https://ucjeps.berkeley.edu/eflora/>. Accessed January 14, 2022.

NOAA Fisheries. 2014. *California Eelgrass Mitigation Policy and Implementing Guidelines*. Available online at <https://archive.fisheries.noaa.gov/wcr/publications/habitat/california_eelgrass_mitigation/Final%20CEMP%20October%202014/cemp_oct_2014_final.pdf>. Accessed February 1, 2022.

U.S. Fish and Wildlife Service. 2022a. *National Wetlands Inventory, Wetlands Online Mapper. Division of Habitat and Resource Conservation*. Arlington, Virginia. Available online at <https://www.fws.gov/wetlands/data/Mapper.html>. Accessed February 1, 2022.

6.5 Cultural Resources

California Department of Transportation. 2008. *A Historical Context and Archaeological Research Design for Mining Properties in California*. Division of Environmental Analysis, Sacramento.

California State Lands Commission. 2022. *California State Lands Commission Shipwreck Information*. Available online at <https://www.slc.ca.gov/wp-content/uploads/2018/12/ShipwreckInfo.pdf>. Accessed December 7, 2022.

California State Transportation Agency. 2024. *Executive Order B-10-11*. Available online at <https://calsta.ca.gov/-/media/calsta-media/documents/docs-pdfs-2013-executive-order-b-10-11-a11y.pdf>. Accessed April 1, 2024.

Clark, W. B. 1957. Gold. In *Mineral Commodities of California: Geologic Occurrence, Economic Development and Utilization of the State's Mineral Resources*, ed. L. A. Wright, 215–228. California Division of Mines Bulletin 176 (Revision of Bulletin 156).

Golla, V. 2007. Linguistic Prehistory. In *California Prehistory: Colonization, Culture, and Complexity*, ed. T. L. Jones and K. A. Klar, 71–82. Lanham, MD: AltaMira Press.

Gould, R. A. 1975. Ecology and Adaptive Response among the Tolowa Indians of Northwestern California. *The Journal of California Anthropology* 2(2):149–170.

Heizer, R. F. (ed.). 1978. *Handbook of North American Indians*, Volume 8, *California*. Gen ed. W. C. Sturtevant. Washington, DC: Smithsonian Institution.

Kroeber, A. L., and S. A. Barrett. 1960. Fishing among the Indians of Northwestern California. *University of California Anthropological Records* 21(1):1–210. Berkeley: University of California Press.

Wilson, N. L., and A. H. Towne. 1978. Nisenan. In *California*, ed. R. F. Heizer. *Handbook of North American Indians*, Vol. 8, gen. ed. W. C. Sturtevant. Washington, DC: Smithsonian Institution.

6.6 Energy

Congressional Budget Office. October 1998. *CBO Paper Electric Utilities: Deregulation and Stranded Costs*. Available online at <https://www.cbo.gov/sites/default/files/105th-congress-1997-1998/reports/stranded.pdf>. Accessed November 23, 2022.

California Independent System Operator. 2017. *A Reliable and Accessible Power Grid*. Available online at <http://www.caiso.com/about/Pages/default.aspx>. Accessed October 17, 2022.

California Energy Commission. 2022a. *Core Responsibility Fact Sheets*. Available online at <https://www.energy.ca.gov/about/core-responsibility-fact-sheets>. Accessed October 17, 2022.

_____. 2022b. *2022 Building Energy Efficiency Standards*. Available online at <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>. Accessed October 17, 2022.

_____. 2022c. *Integrated Energy Policy Report—IEPR*. Available online at <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2022-integrated-energy-policy-report-update>. Accessed October 17, 2022.

Federal Energy Regulatory Commission. 2020a. *What FERC Does*. Available online at <https://www.ferc.gov/what-ferc-does#:~:text=The%20Federal%20Energy%20Regulatory%20Commission,%2C%20natural%20gas%2C%20and%20oil>. Accessed October 17, 2022.

_____. 2020b. *Order No.888 "Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities" and 889 "Open Access Same-Time Information System (formerly Real-Time Information Networks) and Standards of Conduct*." August 2020.

North American Electric Reliability Corporation. 2022. *About NERC*. Available online at <http://www.nerc.com/AboutNERC/Pages/default.aspx>. Accessed October 17, 2022.

U.S. Energy Information Administration. 2022. *California State Profile and Energy Estimates*. Available online at <https://www.eia.gov/state/?sid=CA>. Accessed October 17, 2022.

U.S. Environmental Protection Agency. 2017. *Summary of the Energy Independence and Security Act*. Available online at <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act>. Accessed October 17, 2022.

Western Electricity Coordinating Council. 2020. *About WECC*. Available online at <https://www.wecc.org/Pages/AboutWECC.aspx>. Accessed October 17, 2022.

6.7 Geology and Soils

Birkeland, P. W. 1984. *Soils and geomorphology* (Rev. ed.). Oxford University Press.

Donahue, R.L., R.W. Miller, and J.C. Shickluna. 1983. *Soil: An introduction to Soils and Plant Growth. 5th ed.* Engelwood Cliffs, NJ.

California Department of Conservation. 1990. *Seismic Hazards Mapping Act*. Available online at <https://www.conservation.ca.gov/cgs/hazards/seismic-hazards-mapping-act>. Accessed February 18, 2022.

_____. 2019. *Frequently Asked Earthquake Questions.* Available online at <https://www.conservation.ca.gov/cgs/earthquakes>. Accessed: February 18, 2022.

California State Parks. 2015. *Geological Gems of California State Parks: Special Report 230*. Available online at <https://www.parks.ca.gov/pages/734/files/CGS_SR230_GeoGems.pdf>. Accessed November 8, 2022.

Griffith, G.E., J.M. Omermik, D.W. Smith, T.D. Cook, K. Moseley, and C.B. Johnsons. 2016. *Ecoregions of California (poster): U.S. Geological Survey Open-File Report 2016-2021*. Available online at <https://pubs.usgs.gov/of/2016/1021/ofr20161021_sheet2.pdf>. Accessed November 8, 2022.

Harden, D. 1997. *California Geology.* Prentice Hall Inc.: New Jersey, 477p.

Irwin, W.P. 1966. *Geology of the Klamath Mountains Province*. California Division of Mines and Geology. 190: 19-38.

Page, Ben. 1966. *Geology of the Coast Ranges of California*. In Geology of Northern California, Edited by Edgar H. Bailey, United States Geological Survey, San Francisco Bulletin 19.

Sharp, R.P. 1994. *A Field Guide to Southern California*, Kendall Hunt Publishing Company: Iowa, 301 p.

Soulard, Christopher E. 2012. *Central Basin and Range Ecoregion*. U.S. Geological Survey. Available online at <https://pubs.usgs.gov/pp/1794/a/chapters/pp1794a_chapter20.pdf>. Accessed November 8, 2022.

Sorenson, Daniel G. 2012. Chapter 11: Cascades Ecoregions. *In Status and trends of land change in the Western United States--1973 to 2000*. U.S. Geological Survey.

U.S. Department of Agriculture, Soil Science Division Staff. 2017. *Soil survey manual*. C. Ditzler, K. Scheffe, and H.C. Monger (eds.). USDA Handbook 18. Government Printing Office, Washington, D.C.

U.S. Geological Survey. 2004 July. *Landslide Types and Processes.*

_____. 2022. *What is a fault and what are the different types?*. Available online at <https://www.usgs.gov/faqs/what-fault-and-what-are-different-types?qt-news_science_products=0#qt-news_%E2%80%8Cscience_%E2%80%8Cproducts>. Accessed November 8, 2022.

Walker, J.D., M.W. Martin, and A. Glazner. 2002. *Late Paleozoic to Mesozoic development of the Mojave Desert and Environs, California. Memoir of the Geological Society of America*. 195:1-18. Available online at <https://www.researchgate.net/publication/285656367_Late_Paleozoic_to_Mesozoic_development_of_the_Mojave_Desert_and_environs_California>. Accessed November 8, 2022.

6.8 Greenhouse Gas Emissions

California Air Resources Board. 2014a. *First Update to the Climate Change Scoping Plan*. May. Available online at <https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf>. Accessed October 18, 2022.

California Air Resources Board. 2014b. *Final Regulation Order to Adopt new Subarticle 3.1, Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear* sections 95350 to 95359, title 17, California Code of Regulations. Available online at <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2020/sf6/fro.pdf>. Accessed October 18, 2022.

California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November. Available online at <https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf>. Accessed October 18, 2022.

6.9 Hazards and Hazardous Materials

California Department of Forestry and Fire Protection. 2019. *Wildland Urban Interface (WUI)*. Fire and Resource Assessment Program. Available online at <https://frap.fire.ca.gov/media/10300/wui_19_ada.pdf>. Accessed October 18, 2022.

California Governor's Office of Emergency Services. 2017. *State of California Emergency Plan*. Available online at <https://www.caloes.ca.gov/wp-content/uploads/Preparedness/Documents/California_State_Emergency_Plan_2017.pdf>. Accessed October 18, 2022.

California Public Utilities Commission. 2017. *Decision Adopting a Work Plan For The Development Of Fire Map 2*. Available online at <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M172/K762/172762082.PDF>. Accessed October 18, 2022.

California Public Utilities Commission. 2021. *CPUC Fire-Threat Map*. Available online at <https://files.cpuc.ca.gov/safety/fire-threat_map/2021/CPUC%20Fire%20Threat%20Map_v.3_08.19.2021.Letter%20Size.pdf>. Accessed October 18, 2022.

6.10 Hydrology and Water Quality

California Department of Water Resources. 1994. Bulletin 160-93. *California Water Plan Update*. Available online at <https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/wq_control_plans/1995wqcp/admin_records/part05/328.pdf>. Accessed February 22, 2022.

California Department of Water Resources. 2003. *California's Groundwater—Bulletin 118, Update 2003*. Available online at <https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118>. Accessed November 29, 2022.

_____. 2018. *California Water Plan-Update 2018*. Available online at <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2018/Final/California-Water-Plan-Update-2018.pdf>. Accessed March 14, 2022.

California State Water Resources Control Board. 2022. *2020-2022 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report)*. Available at: <https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html>. Accessed November 29, 2022.

California Coastal Commission. 2022. *Maps-Coastal Zone Boundary*. Available online at <https://www.coastal.ca.gov/maps/czb/>. Accessed April 2022.

Harder, Thomas and Lund, Jay R. 2012. Addressing Nitrate in California's Drinking Water. Report for the State Water Resources Control Board to the Legislature. Available online at <https://ucanr.edu/sites/groundwaternitrate/files/138956.pdf>. Accessed April 2022.

Mount, Jeffrey F. 1995. California Rivers and Streams. University of California Press. Berkeley, CA.

6.11 Land Use and Planning

California Department of Forestry and Fire Protection. 2019. *Land Ownership*. Fire and Resource Assessment Program. Available online at <https://frap.fire.ca.gov/media/10304/ownership_19_ada.pdf>. Accessed October 19, 2022.

6.12 Mineral Resources

California Geological Survey. 2000. SP51, Guidelines for Classification and Designation of Mineral Lands. Available at: https://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf. Accessed: February 1, 2022.

California Department of Conservation. 2022. *AB 3098 List*. Division of Mine Reclamation. Available online at <https://filerequest.conservation.ca.gov/RequestFile/79092>. Accessed October 19, 2022.

6.13 Noise

California Department of Transportation. 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* Available online at < https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf>. Accessed January 19, 2022.

_____. 2020. *Transportation and Construction Vibration, Guidance Manual.* Available online at <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>. Accessed January 19, 2022.

Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual. U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment. Washington, DC.

State of California. 2017. *General Plan Guidelines*. Governor's Office of Planning and Research. Available online at <https://opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf>. Accessed October 19, 2022.

6.14 Population and Housing

California Department of Finance. 2019. *California Tops 39.9 Million Residents at New Year Per New State Demographic Report*. Available online at <https://htv-prod-media.s3.amazonaws.com/files/e-1-2019-press-release-1556737607.pdf>. Accessed January 13, 2020.

_____. 2022a. *E-4 Population Estimates for Cities, Counties, and the State, 2021-2022, with 2020 Census Benchmark*. Sacramento, California. May 2022. Available online at <https://dof.ca.gov/forecasting/demographics/estimates/e-4-population-estimates-for-cities-counties-and-the-state-2021-2024-with-2020-census-benchmark/>. Accessed November 30, 2022.

_____. 2022b, *E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2021-2022*. Sacramento, California, May 2022. Available online at <https://dof.ca.gov/forecasting/demographics/estimates/estimates-e5-2010-2021/>.Accessed November 30, 2022.

California Department of Housing and Community Development. 2019. *Building Code Development and Adoption (Title 24)*. Available online at <Building Code Development & Adoption (Title 24) | California Department of Housing and Community Development>. Accessed February 1, 2022.

6.15 Public Services

California Department of Resources Recycling and Recovery. 2022. *Mandatory Commercial Recycling*. Available online at <https://calrecycle.ca.gov/recycle/commercial/>. Accessed December 1, 2022.

6.16 Recreation

California Department of Fish and Wildlife. 2022. *California Marine Protected Areas*. Available online at <https://wildlife.ca.gov/Conservation/Marine/MPAs>. Accessed February 1, 2022.

California Department of Parks and Recreation (State Parks). March 2, 2018. Boating and Waterways Begins Control Activities in the Delta for Aquatic Invasive Plants. Available online at <https://www.parks.ca.gov/NewsRelease/791>. Accessed February 1, 2021.

California State Lands Commission. 2022. *About the California State Lands Commission*. Available online at: <https://www.slc.ca.gov/about/>. Accessed February 1, 2021.

National Oceanic and Atmospheric Administration. 1975. *The Coastline of the United States*. Available online at <https://shoreline.noaa.gov/_pdf/Coastline_of_the_US_1975.pdf>. Accessed February 1, 2022.

U.S. Geological Survey. 2022. *National Water Summary on Wetland Resources. U.S. Geological Survey Water-Supply Paper 2425*. Available online at <https://water.usgs.gov/nwsum/WSP2425/index.html>. Accessed February 1, 2022.

6.17 Transportation

American Society of Civil Engineers. 2018. *California's Surface Transportation Report Card: An Analysis of Roads, Bridges, and Transit.* ASCE Region 9.

California Board of Forestry and Fire Protection. 2019. California Vegetation Treatment Program Final Program Environment Report. Prepared by Ascent Environmental. November 2019. State Clearinghouse # 2019012052.

California Department of Transportation. 2019. *California 2018 Public Road Data: Statistical Information Derived from the Highway Performance Monitoring System.* November 2019. Available online at <https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/california-public-road-data/prd-2019v2-a11y.pdf>. Accessed December 2, 2022.

Federal Highway Administration. 2017. *Highway Functional Classification Concepts, Criteria and Procedures*. Available online at <https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcauab.pdf>. Accessed December 2, 2022.

6.18 Tribal Cultural Resources

Associated references pertaining to the Native American prehistory and ethnographic information are detailed in the references section of Section 6.05 Cultural Resource.

6.19 Utilities and Service Systems

California Board of Forestry and Fire Protection. 2019. California Vegetation Treatment Program Final Program Environment Report. Prepared by Ascent Environmental. November 2019. State Clearinghouse # 2019012052.

California Department of Resources Recycling and Recovery (Cal Recycle). June 2, 2021. *Mandatory Commercial Recycling*. Available online at <https://www.calrecycle.ca.gov/recycle/commercial>. Accessed March 4, 2022.

U.S. Energy Information Administration. 2022. *California State Energy Profile*. Available online at <https://www.eia.gov/state/print.php?sid=CA>. Accessed December 5, 2022.

6.20 Wildfire

Balch, J. K., B. A. Bradley, J. T. Abatzoglou, R. C. Nagy, E. J. Fusco, and A. L. Mahood. 2017 (March 14). Human-started wildfires expand the fire niche across the United States. Proceedings of the National Academy of Sciences 114(11):2946-2951.

California Board of Forestry and Fire Protection and California Department of Forestry and Fire Prevention. August 22, 2018. *2018 Strategic Fire Plan for California*. Available online at < https://cdnverify.bof.fire.ca.gov/media/hu2al23d/2018-strategic-fire-plan-approved-08_22_18.pdf>. Accessed February 1, 2022.

California Department of Forestry and Fire Prevention (CALFIRE). 2022. *2022 Wildfire Activity Statistics*. Available online at < 2022 Redbook (34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net)>. Accessed May 20, 2024.

_____. 2022a. *Fire Hazard Severity Zone Maps*. Available online at <https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-maps-2022>. Accessed March 1, 2022.

_____. 2022b. *Top 20 Largest California Wildfires*. Available online at <https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/calfire-website/our-impact/fire-statistics/top-20-largest-ca-wildfires.pdf?rev=037e566cdfd540b9a9fe607b809b855c&hash=D7AC28D89B9F8FE36F3C7E5958CEE016>. Accessed November 1, 2022.

California Public Utilities Commission. August 19, 2021. *CPUC Fire-Threat Map*. Available online at <https://files.cpuc.ca.gov/safety/fire-threat_map/2021/CPUC%20Fire%20Threat%20Map_v.3_08.19.2021.Letter%20Size.pdf>. Accessed December 5, 2022.

Cannon, S.H.; Gartner, J.E.; Parrett, C.; Parise, M. 2003. Wildfire-related debris flow generation through episodic progressive sediment bulking processes, western U.S.A. Debris-Flow Hazards Mitigation—Mechanics, Prediction, and Assessment. In Proceedings of the Third International Conference on Debris-Flow Hazards Mitigation, Davos, Switzerland, 10–12 September 2003; Rickenmann, D., Chen, C.L., Eds.; A.A. Balkema: Rotterdam, The Netherlands, 2003; pp. 71–82.

Geertsema, Marten & Highland, Lynn. 2011. Landslides: Human Health Effects. 10.1016/B978-0-444-52272-6.00550-X.

Keeley, J.E. 2001. Fire and invasive species in Mediterranean-climate ecosystems of California. Pages 81–94 in K.E.M. Galley and T.P. Wilson (eds.). Proceedings of the Invasive Species Workshop: the Role of Fire in the Control and Spread of Invasive Species. Fire Conference 2000: the First National Congress on Fire Ecology, Prevention, and Management. Miscellaneous Publication No. 11, Tall Timbers Research Station, Tallahassee, FL.

Mann, M. E., & Gleick, P. H. 2015. Climate change and California drought in the 21st century. Proceedings of the National Academy of Sciences, 112(13), 3858-3859.

Moody, J.A.; Martin, D.A. Post-fire, rainfall intensity–peak discharge relations for three mountainous watersheds in the western USA. Hydrol. Process. 2001, 15, 2981–2993. [CrossRef] 21.

Radeloff, Volker C. et al. 2018. Rapid Growth of the US Wildland-Urban Interface Raises Wildfire Risk. Proceedings of the National Academy of Sciences. 115(13): 3314-3319.

Schooler, S. S., Cook, T., Prichard, G., & Yeates, A. G. 2010. Disturbance-mediated competition: the interacting roles of inundation regime and mechanical and herbicidal control in determining native and invasive plant abundance. Biological Invasions, 12(9), 3289-3298.

U.S. Department of Agriculture and U.S. Department of the Interior. 1995. *Federal Wildland Fire Management Policy*. Available online at <https://www.doi.gov/sites/doi.gov/files/migrated/pmb/owf/upload/1995-Federal-Fire-Policy.pdf>. Accessed March 1, 2022.

_____. 2001. *Review and Update of the 1995 Federal Wildland Fire Management Policy*. Available online at <https://www.doi.gov/sites/doi.gov/files/uploads/2001-wfm-policy-review.pdf>. Accessed March 1, 2022.

Westerling AL, Hidalgo HG, Cayan DR, Swetnam TW. 2006. Warming and earlier spring increase western U.S. forest wildfire activity. Science. 2006 Aug 18;313(5789):940-3. doi: 10.1126/science.1128834. Epub 2006 Jul 6. PMID: 16825536.

6.21 Other CEQA Considerations

California Air Resources Board, California Environmental Protection Agency, California Department of Food and Agriculture, and California Natural Resources Agency. 2019. Draft California 2030 Natural and Working Lands Climate Change Implementation Plan. January 2019.

California Department of Conservation. 2021 The California Land Conservation Act, 2018-19 Status Report, the Williamson Act. Available online at <https://www.conservation.ca.gov/dlrp/wa/Documents/stats_reports/2020%20WA%20Status%20Report.pdf>. Accessed February 1, 2022.

California Board of Forestry and Fire Protection and California Department of Forestry and Fire. 2018 (August 22). *2018 Strategic Fire Plan for California.* Available online at <https://cdnverify.bof.fire.ca.gov/media/hu2al23d/2018-strategic-fire-plan-approved-08_22_18.pdf>. Accessed February 1, 2022.

California Board of Forestry and Fire Protection. 2019. California Vegetation Treatment Program Final Program Environment Report. Prepared by Ascent Environmental. November 2019. State Clearinghouse # 2019012052.

_____. 2022a. CAL FIRE Vegetation Management Program. Available online at <https://www.fire.ca.gov/what-we-do/natural-resource-management/vegetation-management-program>. Accessed February 1, 2022.

_____. 2022b. CAL FIRE Forest Improvement Program. Available online at <https://www.fire.ca.gov/what-we-do/grants/california-forest-improvement>. Accessed February 1, 2022.

_____. 2022c. Demonstration State Forests. Available online at <https://www.fire.ca.gov/what-we-do/natural-resource-management/demonstration-state-forests>. Accessed February 1, 2022.

California Department of Fish and Game. 2006. Pacific Gas and Electric's San Joaquin Valley Operation and Maintenance Habitat Conservation Plan Draft EIR. State Clearinghouse # 2004042009.

California State Water Resources Control Board (State Water Board), Water Quality Certification Program, Division of Water Quality (https://ciwqs.waterboards.ca.gov/ciwqs/index.jsp) for years 2019-2023. Information obtained from California Integrated Water Quality System (CIWQS) on May 20, 2024.

Forest Climate Action Team. 2018. California Forest Carbon Plan: Managing Our Forest Landscapes in a Changing Climate. Sacramento, CA. 178p.

_____. 2020. Draft Pacific Gas and Electric Company Bay Area Operations and Maintenance Environmental Impact Report. Prepared by ICF. December 2020.

U.S. Department of Agriculture and Department of the Interior. 2014. The National Strategy: The Final Phase of the Development of the National Cohesive Wildland Fire Management Strategy. Washington, DC.

Westerling AL, Hidalgo HG, Cayan DR, Swetnam TW. 2006. Warming and earlier spring increase western U.S. forest wildfire activity. Science. 2006 Aug 18;313(5789):940-3. doi: 10.1126/science.1128834. Epub 2006 Jul 6. PMID: 16825536.

7.0 DOCUMENT PREPARATION

Lead Agency: State Water Resources Control Board
Division of Water Quality, Watershed and Wetlands Section
1001 I Street
Sacramento, CA 95814

Project Contact: Jean Bandura, Senior Environmental Scientist, Supervisor
Phone: (916) 322-7781

7.1 List of Preparers

Carina Grove, Environmental Scientist
Elizabeth Reece, Environmental Scientist
Devin Jokerst, Environmental Scientist
Alex Lopez, Environmental Scientist
Chris Monary, Environmental Scientist
Jessica Leonard, Senior Environmental Scientist, Supervisor
Shawn Agarwal, Engineering Geologist
Robert Stoddard, Environmental Scientist
Samantha Parker, Environmental Scientist
Nimisha Patel, Environmental Scientist

7.2 List of Reviewers

Jean Bandura, Senior Environmental Scientist, Supervisor
Paul Hann, Environmental Program Manager 1
Serena Liu, Attorney IV
Phil Crader, Deputy Director

7.3 Location and Custodian of Documents

The record of approval of the EIR shall be kept in the office of the State Water Resources Control Board, 1001 I Street, Sacramento, CA 95814 which shall be held by the State Water Resources Control Board as the custodian of the documents.

Appendix A
Findings of Fact and Statement of Overriding Considerations

1. Description of the Order

This General Order intends to increase the efficiency and consistency of the State Water Resources Control Board (State Water Board) and Regional Water Quality Control Board (Regional Water Board) permitting of Utility Service operation and maintenance and wildfire mitigation projects while protecting water quality. The General Order supports work mandated by Senate Bill 901 (SB 901), which mandates electrical utility companies or electrical cooperatives (Utility Services) implement Wildfire Mitigation Plans to prevent, combat, and respond to wildfire-causing ignitions resulting from interactions of vegetation with electrical utility infrastructure in their service territories. The types of Project Activities covered under the General Order encompass electrical utility operation and maintenance and wildfire mitigation activities with the potential to discharge waste. These Project Activities are described in detail in Section 2.4.2 – Detailed Description of Electrical Utility Wildfire Mitigation Activities of the Environmental Impact Report (EIR). An individual permitted project may incorporate one or more of these activities:

- **Vegetation Management** – trimming, mowing, removal, pesticide application, or other prevention methods used to manipulate vegetation underneath or adjacent to existing circuits, electrical structures and facilities.
- **Post-fire response** – hazardous tree removal, repair and replacement of burned facilities.
- **Site access development/maintenance** – creation, maintenance, improvements (e.g., grading, blading, graveling, brushing) or roads used to access electric utility facilities; includes maintenance and replacement of drainage crossings, culverts, ditches and side drains. This also includes placement of mats or other materials such as sandbags or sheet piles to gain access and perform work.
- **Staging areas and laydown yards** – areas needed to support operations and maintenance activities; areas contain project-related equipment, vehicles and materials, as well as parking for crews, potable water, project trailers, shelter, etc.
- **Pole/Tower Repairs or Replacement** – repair, replacement, or upgrade of aging and deteriorated poles and/or towers.
- **Substation Maintenance** – repair or replace transformer, switches, fuses, cutouts, meters, and insulators.
- **Transmission Tower Maintenance** – repair or replace tower foundations and/or the upper portion of the tower.
- **Structural Conversion** – structural conversions; for example, conversion of a single pole to an H-Frame structure, tubular steel pole or lattice steel tower.
- **Electric Line Reconductoring** – reconductoring of overhead electric utility lines to replace existing conductors with new conductors, along existing circuits; includes splicing and tensioning of electric lines.

- **Undergrounding Powerlines** – replacement of overhead powerlines with underground powerlines; includes horizontal boring or trenching underground.
- **Boardwalk Repairs or Replacement** – repair or replacement of access boardwalks used to service transmission facilities.
- **Electric Utility Infrastructure Lowering, Maintenance, Replacement, or Removal** – electric utility infrastructure sections are lowered, maintained, replaced, or removed due to age, size, design, condition, and exposure.

The approving Water Board will determine whether an individual electric utility project is eligible for authorization under the General Order. Project activities must incorporate applicable Best Management Practices and avoidance and mitigation techniques into their project descriptions to be eligible for enrollment in this General Order.

2. Findings Required Under California Environmental Quality Act (CEQA)

CEQA requires that the Lead Agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Mitigation measures or alternatives are not required, however, where such changes are infeasible or where the responsibility for the project lies with some other agency. (CEQA Guidelines, § 15091, subds. (a), (b).)

In seeking to effectuate the substantive policy of CEQA to substantially lessen or avoid significant environmental effects to the extent feasible, an agency, in adopting findings, need not necessarily address the feasibility of both mitigation measures and environmentally superior alternatives when contemplating approval of a proposed project with significant impacts. Where a significant impact can be mitigated to an "acceptable" level solely by the adoption of feasible mitigation measures, the agency, in drafting its findings, has no obligation to consider the feasibility of any environmentally superior alternative that could also substantially lessen or avoid that same impact – even if the alternative would render the impact less severe than would the proposed project as mitigated. (*Laurel Hills Homeowners Association v. City Council* (1978) 83 Cal.App.3d 515, 521; *see also Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-731; and *Laurel Heights Improvement Association v. Regents of the University of California* ("*Laurel Heights I*") (1988) 47 Cal.3d 376, 400-403.)

In these Findings, the State Water Board first addresses the extent to which each significant environmental effect can be substantially lessened or avoided through the adoption of feasible mitigation measures, an effect is significant and unavoidable does the State Water Board address the extent to which alternatives described in the EIR are (i) environmentally superior with respect to that effect and (ii) "feasible" within the meaning of CEQA. In cases in which a project's significant effects cannot be mitigated or avoided, an agency, after adopting proper findings, may nevertheless approve the project if it first adopts a statement of overriding considerations setting forth the specific reasons why the agency found that the "benefits of the project outweigh the significant

effects on the environment." (Pub. Resources Code, § 21081, subd. (b); *see also*, Cal. Code Regs., tit. 14, §§ 15093, 15043, subd. (b).)

In the Statement of Overriding Considerations found at the conclusion of these Findings, the State Water Board identifies the specific economic, social, and other considerations that, in its judgment, outweigh the significant environmental effects that projects authorized under the General Order would cause.

The California Supreme Court has stated that "[t]he wisdom of approving… any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced." (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.)

These Findings do not attempt to describe the full analysis of each environmental impact contained in the EIR. Instead, a full explanation of these environmental findings and conclusions are presented in the EIR and these findings hereby incorporate by reference the discussion and analysis in the EIR supporting the determination regarding the impacts of the General Order and mitigation measures designed to address those impacts. In making these findings, the State Water Board ratifies, adopts and incorporates in these findings the determinations and conclusions of the EIR relating to environmental impacts and mitigation measures except to the extent any such determinations and conclusions are specifically and expressly modified by these findings.

The State Water Board further adopts and incorporates all of the mitigation measures set forth in the EIR and the Mitigation Monitoring and Reporting Program (MMRP) to substantially lessen or avoid the potentially significant and significant impacts of the General Order. The State Water Board adopts each of the mitigation measures proposed in the EIR to reduce or eliminate significant impacts resulting from the General Order. Accordingly, in the event a mitigation measure in the EIR has inadvertently been omitted in these findings or the MMRP, such mitigation measure(s) is hereby adopted and incorporated in the findings below by reference. In addition, in the event the language describing a mitigation measure set forth in these findings or the MMRP fails to accurately reflect the mitigation measures in the EIR due to a clerical error, the language of the policies and implementation measures, as set forth in the EIR shall control. The impact numbers and mitigation measure numbers used in these findings reflect the information contained in the EIR.

2.1 Impacts Found to be Less Than Significant or No Impact and Thus Requiring No Mitigation

Consistent with Public Resources Code section 21002.1 and section 15128 of the State CEQA Guidelines, the EIR focused its analysis on potentially significant impacts, and limited discussion of other impacts for which it can be concluded with certainty there is no potential for significant adverse environmental impacts. State CEQA Guidelines section 15091 does not require specific findings to address environmental effects that an EIR identifies as "no impact" or a "less than significant" impact. Nevertheless, the State Water Board hereby finds that, based on substantial evidence in the whole of the record, the adoption of the General Order does not authorize any individual project but it is reasonably foreseeable that Project Activities permitted under the General Order would have either no impact or a less than significant impact to the following resource areas:

- Air Quality
- Energy
- Greenhouse Gases
- Land Use
- Minerals
- Population
- Public Services
- Recreation
- Transportation
- Utilities
- Wildfire

Therefore, these impacts do not require mitigation. These issues have no potential for significant impacts and required no further environmental review or analysis beyond the discussion in Chapter 3 of the EIR. (CEQA Guidelines, § 15128.)

2.2 Significant or Potentially Significant Impacts Reduced to a Less than Significant Impact Through Mitigation Measures

Significant or potentially significant impacts prior to the application of mitigation measures have been identified in the following areas: Biology, Geology, Hazards, and Noise. With the implementation of mitigation measures, these impacts have been reduced and are discussed in further detail below.

Impact Category: Biology

Description of Potential Effects

Project Activities permitted under the General Order could have an impact on biological resources such as special-status species, critical habitat, or sensitive natural

communities. Special-status wildlife could be crushed by heavy equipment. Special-status plants could be flattened by heavy equipment, trimmed for vegetation management, sprayed with herbicide, or removed from the work area. Project Activities such as road development and facility upgrades could impact wetland hydrology through altering a feature's microtopography conducive of inundation or modifying the water table. Site access or development could contribute significant erosion or sedimentation into waters of the State, which could choke out native species and compromise the water's function. Project Activities could disperse invasive plant seeds into disturbed soils and facilitate an infestation that could outcompete the native biota. Vehicles and other equipment could discharge hazardous materials into waters, including but not limited to fuels and lubricants. Managed utility corridors, including overhead electric facilities located in waters of the state, accommodate fish and wildlife movement after completed construction, and have not been barriers. However, impacts on native fish or wildlife movement may result during Project Activities including facility replacement, access route construction and reconstruction, dewatering, vegetation management and operation of construction equipment.

Project Activities of the type permitted under the General Order are ongoing, and the continuation of these activities does not represent a drastic change to the baseline conditions of the natural communities within and neighboring the utility infrastructure. Wildfire mitigation would be conducted under the new baseline of the postfire environment. All Utility Services enrolled under the General Order would be required to conduct Project Activities in compliance with the protective conditions that will avoid or minimize impacts to biological resources.

Mitigation Measures

The following mitigation measure would reduce impacts from Project Activities related to biological resources:

Mitigation Measure BIO-1: Agency Consultation, Permitting, and Mitigation

If sensitive biological resources occur or have potential to occur in the Project Area, the Utility Service would be required to consult with the applicable regulating agency or agencies to acquire permits, implement mitigation, and coordinate to avoid conflict with existing Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans. The regulatory agencies would likely require protocol surveys to qualify and quantify the extent of the sensitive biological resources in the Project Area. Permit conditions would likely require Utility Services to install resource-specific buffers in the Project Area prior to ground disturbance. Mitigation for Utility Services' impact to sensitive biological resources could include purchasing mitigation bank credits and/or enhancing or preserving existing populations or habitat in perpetuity.

Utility Services would be required to acquire a habitat conservation plan and incidental take permit under federal ESA Section 10(a) or a federal interagency consultation for an incidental take permit under Section 7 from USFWS for impacts to federally listed species. Utility Service impacts to waters of the U.S. could require a CWA Section 404 permit from the U.S. Army Corps and a Section 401 Water Quality Certification from the State or Regional Water Board. Project Activity impacts to aquatic resources that are only under state jurisdiction could require Utility Services acquire a Waste Discharge Requirement from the State or Regional Water Board. Project Activity impacts to streambeds and lakes could require Utility Services acquire a Lake and Streambed Alteration Agreement from CDFW. Utility Services could be required to acquire a Coastal Development Permit from the CCC or local government managing the Local Coastal Program for Project Activities in the coastal zone. Project Activities in the Bay Area could require Utility Services acquire permits from the San Francisco Bay Conservation and Development. Utility Services would be subject to local agency regulations.

Findings

For impacts to biological resources, the State Water Board finds: Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the environmental effects as identified in the EIR. The potential impacts to biological resources from implementation of the General Order are found to be **less-than-significant with mitigation**.

References

Section 3.04 of the EIR addresses the General Order's biological resources impacts.

Impact Category: Geology

Description of Potential Effects

Project Activities permitted under the Order would not alter the seismic setting or underlying geologic conditions. Electrical utility infrastructure could be subject to strong seismic ground shaking; however, Project Activities are not known to increase the risk to people or structures from seismic-related ground failure or liquification. Project Activities could occur on unstable soils or destabilize slopes during access road construction and reconstruction, equipment staging, undergrounding powerlines, and vegetation management. Project Activities could occur in mountainous locations where there is a higher risk of slope failure compared to flatter portions of the Project Area. Project Activities could include excavation, grading, vegetation removal, and other ground disturbances that could reduce slope stability. A post-fire environment may have an increased risk of landslides because of burn scars. The General Order includes conditions requiring site stabilization, runoff controls, and erosion management

practices, but the General Order could cover Project Activities that directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

Mitigation Measures

Mitigation Measure GEO-1: Adherence to Utility Earthwork Standards

Utility Services would conduct Project Activities in compliance with all applicable utility and earthwork regulatory standards, including those required by the California Public Utilities Commission, Institute of Electrical and Electronics Engineers 693 standards, California Building Code, and other existing federal, state, and local laws, regulations, and/or standards.

Mitigation Measure GEO-2: Conduct General Project-Level Analysis for Paleontological Sensitive Units

Prior to breaking ground, Utility Services would be required to assess whether the proposed project occurs on a paleontological sensitive unit. If the proposed project occurs on a paleontological sensitive map unit, a qualified paleontologist would develop a paleontological resource monitoring and recovery plan. The paleontological resource monitoring and recovery plan would detail monitoring protocols for ground disturbance proposed in sediment with a moderate to high paleontological sensitivity. The monitoring and recovery plan would be designed and 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 the recovery program would be implemented. If mitigation measure GEO-2 determines the project occurs on a paleontological sensitive unit, mitigation measure GEO-3 below would also be implemented.

Mitigation Measure GEO-3: Conduct Paleontological Training to Construction Crews

If after implementing mitigation measure GEO-2, the proposed project was determined to occur in a location with moderate to high paleontological sensitivity, a qualified paleontologist shall prepare paleontological resources sensitivity training materials prior to ground disturbance for use during project worker environmental training. This training shall be conducted by an environmental professional under the supervision of the qualified paleontologist. Prior to ground disturbance, all construction personnel onsite will receive the paleontological resources sensitivity training, even if they arrived after initial ground disturbance begins. The paleontological resource sensitivity training shall report the types of resources that could be encountered within the project site and the procedures to follow if they are found; if paleontological resources are detected, all work

within at least 100 feet should be halted until a qualified paleontological resources specialist evaluates the item for its significance and records the item. 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.

Findings

For the above impacts to geology, soils, and seismicity, the State Water Board finds: Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in EIR. The potential impacts to geology and soils from the implementation of the General Order are found to be **less-than-significant with mitigation**.

References

Section 3.07 of the EIR addresses the Project's geology and seismicity impacts.

Impact Category: Hazards

Description of Potential Impacts

Project Activities can require use of hazardous substances, such as fuels and lubricants for vehicles and equipment, paints, solvents, and epoxies. Spills could occur during fueling or servicing equipment, or during delivery of fuels and other substances to work sites. Spills have the potential to contaminate soil, surface water, and/or groundwater, potentially resulting in toxic effects on vegetation, wildlife, workers, and the general public. Utility Service facilities are located statewide, and Project Activities requiring the use of hazardous materials and hazardous wastes could take place within 0.25 mile of existing or proposed schools. In the post-fire environment, utilities may need to transport toxic materials, such as burned equipment or contaminated soil. It is possible that this transportation could create a hazard to the public or the environment.

Mitigation Measures

Mitigation Measure HAZ-1: Compliance with Applicable Laws, Regulations, and Ordinances

Utility Services would be required to comply with applicable state, federal, and local laws, regulations, and requirements pertaining to hazardous materials and hazardous wastes. Relevant regulations include the Toxic Substances Control Act, CWA, Solid Waste Disposal Act, Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act. In addition, Utility Services storing hazardous materials that meet or exceed the state thresholds (i.e., 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for gasses) are required to prepare a

Hazardous Materials Management Plan; the plan would detail best management practices to minimize the effects to incidental releases, and ensure proper handling, storage, and disposal of hazardous and nonhazardous waste. These regulations establish legal requirements for hazardous materials storage, transportation and handling, and agency oversight.

Findings

For the above impacts to hazards and human health, the State Water Board finds: Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the EIR. The potential impacts to hazards and human health from the implementation of the General Order are found to be **less-than-significant with mitigation**.

References

Section 3.09 of the EIR addresses the General Order's hazards and human health impacts.

Impact Category: Noise

Description of Potential Impacts

Project Activities permitted under the Order could generate noise from the following sources: vehicles such as trucks, helicopters or light aircraft used for inspection patrols and employee access trips; heavy machinery such as cranes, excavators and scrapers used for maintenance; and smaller equipment such as chainsaws or generators used for vegetation management and other Project Activities. In general, Project Activities would be temporary and of short duration. In addition, the linear nature of many Utility Service projects reduces the construction time in a single location, limiting the duration that any one receptor would be exposed to the sound. Some high-impact Project Activities, such as pile driving, may impact the ground and create vibrational waves that radiate outward and downward, away from the point of contact. While these impacts would be temporary and short-lived, sensitive receptors could be exposed to groundbourne vibration and noise. Project Activities could be implemented within an area covered under an adopted airport land use plan, potentially exposing construction workers or nearby residents to excess noise.

Mitigation Measures

Mitigation Measure NOI-01: Adherence to Noise Standards and Policies per the Applicable General Plan, Noise Ordinances, or Other Agency Regulations

Noise-generating Project Activities would follow applicable general plans, noise ordinances, and other agency or agencies regulations for the jurisdiction located within the vicinity of the project.

Findings

For the above impacts to noise, the State Water Board finds: Changes or alterations have been required in, or incorporated into, the General Order to avoid or substantially lessen the significant environmental effect as identified in the EIR. The potential impacts to noise from implementation of the General Order are found to be **less-than-significant with mitigation**.

References

Section 3.13 of the EIR addresses the General Order's noise impacts.

2.3 Significant and Unavoidable Impacts

The following significant and potentially significant environmental impacts are unavoidable and cannot be mitigated in a manner that would lessen the impact to below the level of significance. For these impacts, the State Water Board adopts the Order due to overriding considerations as set forth below in Section 4, *Statement of Overriding Considerations*.

Impact Category: Aesthetics

Description of Potential Effects

Project Activities permitted under the Order could result in visual impacts to a site, including potential impacts to scenic vistas and the visual character of a public view of the site and its surroundings. Project Activities, including operation and maintenance of utility infrastructure and the construction of access roads, can involve ground disturbing activities and the removal of vegetation. Vegetation management would have significant aesthetic impact because the rights-of-way (ROW) would be managed more often or with greater clearance distances than present baseline conditions to ensure the powerlines have sufficient clearance above the vegetation per California Public Utilities Commission (CPUC) requirements. Project Activities such as trenching, horizontal directional drilling, or the construction of staging areas have the potential to affected areas within or directly adjacent to the ROW. Revegetation of these areas can take several years or may not be permitted to return to previous heights or proximity to utility lines, resulting in impacts to scenic vistas. Upgrading of utility infrastructure could result in permanent, but minor visual changes to the landscape due to increased surface area of reflective surfaces. The construction of access roads would result in permanent additions to the landscape. Poorly constructed access roads could result in erosion that could impact aesthetic resources. It is not anticipated that many access roads would be constructed through scenic resources, however, if a new access route was needed to reach utility infrastructure within 1,000 feet of state scenic highways, it is anticipated that Utility Services would use the path of least resistance and attempt to go around trees, rock outcroppings, and historic buildings.

Mitigation Measures

The following mitigation measures would reduce impacts from Project Activities related to aesthetics:

Mitigation Measure AES-01: Reduction of Visibility of New Structures in Sensitive Landscapes

The Utility Service would design new structures (e.g., interest poles, additional hardware and equipment being added to existing poles, supporting structures and stub poles, access roads) to minimize the impact on the existing visual character and quality associated in sensitive landscapes (e.g., in, along, or near national, state, or local parks, recreation areas, forest, scenic routes, vista views, or similar). To the extent feasible and consistent with safety of visible guardrails, substations and switching stations, infrastructure would be composed of a non-reflective material to help blend the surfaces in with the surroundings. Utility Services would prioritize constructing access roads in locations not visible to the public.

Findings

For the above impacts to aesthetics, the State Water Board finds: Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the EIR. However, where greater clearance distances need to be maintained or areas are revegetated with plants, there may be significant impacts for which there are not feasible mitigation measures. Therefore, the potential impacts to aesthetics from implementation of the General Order area found to be **significant and unavoidable**. This impact is overridden by project benefits as set forth in the statement of overriding considerations.

References

Section 3.01 of the EIR addresses the General Order's aesthetic impacts.

Impact Category: Cultural Resources

Description of Potential Effects

Project Activities permitted under the Order could be in proximity to architectural resources that qualify as historical resources as defined in State CEQA Guidelines Section 15064.5 and archaeological resources that qualify as archaeological resources as defined in State CEQA Guidelines Section 15064.5 or 21083.2. Project Activities permitted under the Order could be in proximity to human remains, including those interred outside of dedicated cemeteries. In the event of the discovery of human remains, implementation of General Order conditions related to cultural resources and

adherence to California Public resources Code Section 5097.98 and Health and Safety Code Section 7050.5 are required. The General Order does not authorize any activity adversely impacting an important historical or archeological resource; disturbing any human remains; or eliminating important examples of the major periods of California history or prehistory, unless the activity is authorized by the appropriate historical resource agencies. For certain urgent projects necessary to restore essential public services or facilities, it may not be possible to complete a search for archaeological resources prior to initiating activities. Because the extent and location of Project Activities are not known at this time, it is not possible to conclude that the General Order requirements or equally effective mitigation measures would reduce significant impacts to a less-than-significant level in all cases.

Findings

Project Activities permitted under the Order are the types of activities that have the potential to affect historical (i.e. architectural) resources. However, the exact details, including precise locations, of any such activities have yet to be determined. Therefore, it is not known whether implementing Project Activities permitted under the Order would affect any architectural resources. Factors necessary to identify specific impacts on historical resources include the project's design, footprint, and type; and the precise location of construction activities. For these reasons, even with adherence to General Order conditions, this impact is **significant and unavoidable**. This impact is overridden by project benefits as set forth in the statement of overriding considerations.

References

Section 3.05 of the EIR addresses the General Order's cultural resources impacts.

Impact Category: Tribal Cultural Resources

Description of Potential Effects

Project Activities permitted under the Order are the types of activities that have potential to affect tribal cultural resources. Construction activities and minor expansions of facilities may result in either a direct impact (e.g., physical modification, damage, or destruction) or an indirect impact (e.g., alteration to setting, biological community, or visual setting) on a tribal cultural resource as defined in Public Resources Code section 21074. Depending on the Project Activity, it may be possible to avoid or minimize the impact to the tribal cultural resource by, for example, avoidance of the site, confidentiality of the site location, fence off cap-in place areas of high sensitivity, avoid ground disturbance or route around tribal cultural resource sites, and providing working training. The General Order conditions require Utility Services to comply with a process designed to be protective of tribal and cultural resources, including an evaluation of the

site, and the potential for tribal consultation on projects with the potential to impact known tribal cultural resources.

Findings

Project Activities permitted under the Order are the types of activities that have the potential to affect tribal cultural resources, including resources included in a private tribal register. However, the exact details, including precise locations of any such activities have yet to be determined. Therefore, it is not known whether implementing Project Activities under the Order would affect any tribal cultural resources. Factors necessary to identify specific impacts on tribal cultural resources include the project's design, footprint, and type; and the precise location and timing (i.e., seasonal access for cultural ceremonies or resources) of construction activities. For these reasons, even with adherence to General Order conditions, this impact is **significant and unavoidable**. This impact is overridden by project benefits as set forth in the statement of overriding considerations.

References

Section 3.18 of the EIR addressed the General Order's tribal cultural resources impacts.

3. Alternatives

The State Water Board considered alternatives to the General Order presented and analyzed in the EIR and presented during the comment period. Some of these alternatives have the potential to avoid or reduce certain significant or potentially significant environmental impacts, as set forth below. The State Water Board finds that these alternatives are infeasible. Based on the impacts identified in the EIR and other reasons summarized below, and as supported by substantial evidence in the record, the State Water Board finds that approval and implementation of the General Order as presented is the most desirable, feasible, and appropriate action and hereby rejects the other alternatives and other combinations and/or variations of alternatives as infeasible based on consideration of the relevant factors set forth in CEQA Guidelines Section 15126.6, subdivision (f) (also CEQA Guidelines, Section 15091, subdivision(a)(3)). Each alternative and the facts supporting the finding of infeasibility are set forth below.

3.1 Summary of Alternatives Considered

The following alternatives were identified and considered for further evaluation in the EIR:

- Alternative 1: The General Order as proposed that is a combined Section 401 Water Quality Certification and Waste Discharge Requirement
- Alternative 2: No Project
- Alternative 3: Fire Prevention Work Only (i.e. excludes postfire activities)
- Alternative 4: Permit Limited to Only High Fire Threat Districts

- Alternative 5: Create Separate Permits for In-Water Work (401 Certification) and out of water work (Waste Discharge Requirement)

Alternative 2: No Project

Alternative 2 consists of existing conditions at the time the NOP is published, and what would be reasonably expected to occur in the foreseeable future without adoption of the Order, based on current plans and consistent with available infrastructure. Utility Services are required to increase the pace and scale of their wildfire mitigation activities per Senate Bill 901. These projects would remain subject to the requirement to apply for a CWA Section 401 water quality certification and/or waste discharge requirements for each project.

Relationship to Project Objectives

Alternative 2 would not achieve the objective to streamline the regulatory process for utility wildfire mitigation and response activities. Additionally, the No Project Alternative (Alternative 2) would not provide a process for permitting ongoing utility operations and maintenance activities in a uniform manner statewide.

Facts in Support of Finding of Infeasibility

As explained above, Alternative 2 does not meet the objectives of the Order. The current framework for permitting wildfire mitigation impacts to waters of the state, which requires individual water quality certifications or waste discharge requirements, would have longer permit processing times. In addition, there are existing emergency orders that permit the immediate initiation of work, but there are some projects that do not qualify as emergencies or are authorized through another existing, non-emergency Corps permit. Where the initiation of project activities is not permitted prior to the receipt of a Notice of Applicability, the initiation of urgent project activities could be delayed, or the discharger could face the prospect of enforcement. Therefore, Alternative 2 is rejected because it does not offer the streamlined approach that is needed to permit wildfire mitigation activities and their impacts to waters of the state. Moreover, individual permits would not provide uniform permitting statewide.

Alternative 3: Fire Prevention Work Only

This alternative would allow a streamlined permitting process for fire prevention work but would be more limited than the General Order. Fire prevention work represents the initial need for streamlined permitting in the wildfire cycle.

Relationship to Project Objectives

While fire prevention work would partially permit utility wildfire mitigation and response activities, it would not include postfire work. Postfire work includes the urgent need to restore power and services to the public.

Facts in Support of Finding of Infeasibility

As explained above, Alternative 3 partially achieves the project objectives, but this alternative would not fully achieve streamlining of the regulatory process for wildfire related work performed by Utility Services. Therefore, a general order for Fire Prevention Work Only would fail to address the Utility Service's need for streamlined permitting when there could be a threat to life, safety, or property but are authorized by a non-emergency Corps permit. Electricity outages can pose a potential threat to public health and safety. As a result, this alternative is rejected.

Alternative 4: Limit Permit to Only High Fire Threat Districts

Alternative 4 would allow a streamlined permitting process for utility wildfire mitigation activities and similar operations and maintenance activities only within High Fire Threat Districts as determined by the California Public Utilities Commission (CPUC).

Relationship to Project Objectives

Alternative 4 would address utility wildfire mitigation and response activities within the CPUC designated High Fire Threat Areas, however the potential for catastrophic fire and a resulting loss of Utility Services is not limited to only High Fire Threat Areas. As a result, limiting the scope of the General Order would limit Utility Services to the individual section 401 water quality certifications and Waste Discharge Requirement permitting timeline for fire-related projects that may occur outside of High Fire Threat Areas.

Factors in Support of Finding of Infeasibility

As explained above, Alternative 4 would not achieve all the project objectives. This alternative excludes large areas of the state where wildfire prevention Project Activities will also need to be completed and are also susceptible to impacts from wildfires such that a streamlined permitting process for repairs and restoration of Utility Services would be beneficial. Therefore, this alternative was rejected.

Alternative 5: Create Separate Permits for In-Water Work (401 Certification) and out of water work (Waste Discharge Requirement)

Alternative 5 would be to create separate permits for where there was a discharge of dredged or fill material to waters of the state, often referred to as in-water work, and where there is a discharge of waste that is not a discharge of dredged or fill material, referred to here as out-of-water work.

Relationship to Project Objectives

Alternative 5 would accomplish the Project Objectives with two permits instead of one. Enrollment in two different permits would potentially be more confusing and therefore be less efficient than one permit.

Factors in Support of Finding of Infeasibility

As discussed above, Alternative 5 would not achieve the project objectives in a timely manner. The adoption of two permits would be potentially confusing and administratively burdensome. Adoption of two permits would not lessen any potential for adverse environmental impacts that are reasonably foreseeable from Project Activities permitted under the General Order. Therefore, this alternative was rejected.

4. Statement of Overriding Considerations

The State Water Board hereby declares that pursuant to State CEQA Guidelines Section 15093, it has balanced the benefits of the General Order against any unavoidable environmental impacts in determining to adopt the General Order. Pursuant to the State CEQA Guidelines, if the benefits of the General Order outweigh the unavoidable adverse environmental impacts, those impacts may be considered acceptable. The State Water Board finds that approval of the General Order, whose potential impacts have been evaluated in the EIR, and as indicated in the Statement of Environmental Effects and Required Findings, discussed above, would result in the occurrence of significant effects that are not avoided or substantially lessened. These significant and unavoidable effects are listed below.

- **Impact AES-1: Substantial adverse effect on a scenic vista.**
- **Impact AES-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.**
- **Impact AES-3: Substantially degrade the existing visual character or quality of public views of the site and its surroundings in nonurbanized areas.**
- **Impact CUL-2: Cause a significant adverse change in the significance of an archaeological resource pursuant to Section 15064.5.**
- **Impact TCR-1: Cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code Section 21074.**

Having reduced the adverse significant environmental impacts of the General Order as identified above to the extent feasible by adopting the mitigation measures contained in the EIR, the MMRP, and this appendix, as well as the conditions contained in the Final General Order; having considered the entire administrative record on the General Order; and having weighed the benefits of the General Order against its unavoidable adverse impact after mitigation, the State Water Board has determined that each of the

following social, economic, and environmental benefits of the General Order separately and individually outweighs the potentially unavoidable adverse impacts and renders those potential adverse impacts acceptable, based upon the following overriding considerations.

The considerations taken into account by the State Water Board in making this decision are identified below.

Wildfires ignite in many ways, one of which is malfunctioning power company infrastructure. From 2007 to summer 2020, powerline-caused wildfires have resulted in 31,138 structures lost across California. (California Council on Science and Technology, The Costs of Wildfire in California (2020) ("CCST Report").) Electric utilities can cause destructive wildfires through delayed maintenance of power transmission and distribution equipment or downed power lines due to bad weather. Extreme winds can damage utility equipment directly (particularly if it is faulty or has not been inspected) and can blow nearby trees and branches into lines. Equipment damage or contact often results in deposits of hot metal or burning vegetation onto a dry fuel bed. The conditions most likely to create an ignition are the same as those that lead to explosive fire growth. (*Id.*)

Since 2008, large fires caused by malfunctioning power company infrastructure caused the destruction of nearly 2 million acres of land. (CalMatters Wildfire tracker, available at https://calmatters.org/california-wildfire-map-tracker/, last accessed May 2024.) The California Department of Forestry and Fire Protection (CAL FIRE) provides the annual Wildfire Activity Statistics report. In California, the five-year average (2018-2022) was 7,572 fires and 1,889,103 acres burned. (CAL FIRE, 2022 Wildfire Activity Statistics (2022).) In 2022, electrical power, as defined by electrical power distribution or transmission, was responsible for 7% of the fires in the CAL FIRE state responsibility area. (2022 Wildfire Activity Statistics at 17.) The five-year average for fires caused by electrical power in the CAL FIRE state responsibility area was 290.

4.1 Environmental Considerations

A person discharging or proposing to discharge waste to waters of the state is required to file a report of waste of discharge, except if that requirement is waived. (Wat. Code, § 13260.) In the past, dischargers who were not required to obtain coverage under an existing Water Board permit sometimes incorrectly determined that no authorization from the Water Board for necessary. For example, activities that may not have been covered by the NPDES construction stormwater permit because of their size or because they were operation and maintenance activities have not filed a report of waste discharge with the applicable Water Board. Regional Water Board inspections have identified instances of improperly sized culverts, roads that were not constructed to avoid waters, grading performed without benefit of sediment and erosion control measures and associated mass wasting of sediments into waters of the state. (E.g.,

Central Valley Regional Water Quality Water Board, Order No. R5-2023-0506.) Some of these activities may have been conducted on an expedited basis due to impending or recent wildfires. In such circumstances, particularly when contractors that may not be familiar with California law are used, having a General Order that articulates clear standards and requirements already in place will promote compliance without delaying the activities. Where waste discharge requirements are not already in place, dischargers may be more inclined to take on the risk of enforcement rather than delay the completion of urgent activities. A General Order where project activities are enrolled rather than requesting individual authorization is accordingly expected to result in better compliance with state water quality control plans and policies and better protect water quality and beneficial uses.

Additionally, the increase of catastrophic wildfires negatively impacts the health and resilience of California's forests and other sensitive habitats. California enjoys an immense spectrum of natural beauty and biological diversity, which adds immeasurably to the quality of life of 37 million Californians by providing clean air and water, wildlife habitat, recreation, scenic vistas, and a host of other tangible and intangible benefits. High-severity fires affect the resilience of the state's native ecosystems, hindering the ability of ecosystems to recover and undermining conservation of native biodiversity through the loss of native vegetation and increased vulnerability to non-native, invasive species.

Furthermore, catastrophic wildfires can compromise water quality both during the active burn and after the fire has been contained. (California Water Science Center, Water Quality after a Wildfire, available at https://ca.water.usgs.gov/wildfires/wildfires-water-quality.html, last accessed May 2024.) Drinking water sources can be impaired by ash from wildfires, and watersheds can be impacted through increased erosion and flooding. (*Ibid.*) Post-fire runoff can also harm ecosystems and aquatic life such as fish and frogs that live in affected watersheds, some of which are critically endangered. In one 2016 study, trace elements were found in post-fire stormwater water. (Carmen Burton, et. al, Trace Elements in Stormflow, Ash, and Burned Soil following the 2009 Station Fire in Southern California (2016).) The State Water Board finds that the project's potentially significant environmental impacts are acceptable in light of the project's benefits in reducing the risk of uncontrolled, catastrophic fires that cause significant environmental harm.

4.2 Economic Considerations

Electric Utility Service wildfire mitigation activities that fall outside the scope of existing permits, such as Nationwide Permits and Regional General Emergency Permits, must obtain an individual water quality certification and/or waste discharge requirements from the State Water Board and/or the appropriate Regional Board. This process can require greater time and expense and provides less regulatory certainty and consistency for

electric utility project proponents than would be expected to request authorization under a General Order. As stated in the EIR Section 1, the objective of the Order is to help expedite permitting of wildfire mitigation and operation and maintenance activities statewide that have potential to discharge to waters of the state 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.

Electric Utility Service wildfire mitigation activities require considerable funding to implement. In 2019, the State's three largest utilities reported spending $4.7 billion in combined expenditures. (CCST Report at pp. 37-38.) The majority of spending was on grid design and system hardening, vegetation and asset management, and inspections. (*Id.*) But electric utility companies also incur costs associated with public safety power shutoffs and from increased liability exposure due to wildfires. (*Id.* at pp. 39-40.) For example, PG&E was found liable for causing the 2018 Camp Fire, the state's most deadly and destructive on record.

In developing this permit, the Water Board considered and developed the permit language to be consistent with or similar to existing industry standard design manuals. For example, many of the road requirements are similar to design and construction requirements set forth in the Handbook for Forest, Ranch, and Rural Roads prepared by Pacific Watershed Associates. The handbook focuses on how to construct efficient, low cost and low maintenance roads designed to have a low impact on water quality and aquatic habitat. This guidance represents feasible best management practices used in the construction industry in areas where much of the project activities will occur. In addition, the water boards reviewed other regulatory programs and consulted with other agencies to ensure requirements could be implemented efficiently and without conflicting with the other program requirements. Specifically, the Water Board has reviewed and attempted to harmonize with the California Department of Forestry and Fire Protection Resource Management, Forest Practice Program. Other General Order conditions are commonly included in water quality certifications and construction stormwater permits for other activities, so that the Utility Services dischargers should be familiar with implementation of best management practices and other measures for compliance.

Adoption and implementation of the General Order would result in more streamlined Water Board authorization for wildfire prevention activities that reduce the risk of wildfires, including catastrophic megafires, that impose enormous economic costs to California. In 2022, fires in the CAL FIRE state responsibility area that were found to be caused by electrical power caused an estimated $10.9 million in damages. (CAL FIRE 2022 Wildfire Activity Statistics at 29.) This estimate is comprised of estimates of the total property and contents dollar loss in terms of replacement in like kind and quantity and property and contents damaged by fire, smoke, water, and overhaul, but does not include the cost of fire suppression or indirect costs. In 2020, fire suppression costs

surpassed $1 billion for the first time. (https://calmatters.org/newsletters/whatmatters/2023/08/california-wildfires/.) These estimates of damages do not include other costs that are not currently being tracked and are difficult to estimate, such as the costs of business disruption, damage to uninsured homes, ecosystem damage, and secondary health impacts.

The State Water Board finds that the project's potentially significant environmental impacts are acceptable in light of the project's benefits in reducing the risk of uncontrolled, catastrophic fires that cause significant economic harm.

4.3 Social Considerations

As a result of climate change, wildfires are increasing in intensity and size; and as California gets hotter and drier, the threat of wildfire continues to increase. This increase in incidents of wildfire results in catastrophic losses of personal property, utility service infrastructure, and can negatively impact human health.

Larger and more frequent wildfires are also a public health concern because smoke threatens public health with both short-term and long-term consequences. (CCST Report at p. 94.) U.S. EPA has found that wildfire smoke was the largest contributor of particulate matter of 2.5 micros or less, which is small enough to affect every organ in the body and is associated with lung inflammation, cardiovascular disease, stroke, allergies, autoimmune disorders, diabetes, Alzheimer's disease, lower childhood IQ, autism, lung cancer, bladder cancer, and childhood leukemia. (*Id.* at pp. 94-97.) Particulate matter from wildfire smoke can travel hundreds of miles, impacting areas far beyond the burn area. (*Id.* at 100-01.) Wildfires also produce a range of harmful air pollutants, such as benzene, volatile organic compounds, carbon monoxide, lead, mercury, and other heavy metals and toxins, all of which are associated with detrimental health impacts. (*Id.* at 97.)

A General Order is an effective approach to enable faster approval of essential electrical utility wildfire mitigation activities and electrical utility infrastructure operations and maintenance while ensuring the work is completed in a manner protective of water quality. The Project Activities permitted under the Order are consistent with existing environmental goals and standards and support the mandate of SB 901. The State Water Board finds that the project's potentially significant environmental impacts are acceptable in light of the project's benefits in reducing the risk of uncontrolled, catastrophic fires that cause significant social harm.

4.4 Summary

Accordingly, the State Water Board concludes that the General Order benefits outweigh and override its unavoidable significant impacts for the reasons detailed above. The State Water Board reached this decision after having done all of the following: (1) adopted all feasible mitigation measures, (2) rejected alternatives that do not fully meet

the Project objectives or are infeasible, (3) recognized all significant, unavoidable impacts, and (4) balanced the benefits of the Project against its significant and unavoidable impacts.

4.5 References

Burton et al. 2016. Trace Elements in Stormflow, Ash, and Burned Soil following the 2009 Station Fire in Southern California. PLoS One. 2016 May 4; 11(5):e0153372. doi: 10.1371/journal.pone.0153372. PMID: 27144270

CAL FIRE. *Statistics*. Available online at <https://calmatters.org/california-wildfire-map-tracker/>. Accessed November 29, 2023.

California Council on Science and Technology. October 2020. *The Costs of Wildfire in California: An Independent Review of Scientific and Technical Information*. Available online at <https://ccst.us/wp-content/uploads/The-Costs-of-Wildfire-in-California-FULL-REPORT.pdf>. Accessed November 29, 2023.

California Water Science Center. March 2018. *Water Quality after a Wildfire*. Available online at <https://ca.water.usgs.gov/wildfires/wildfires-water-quality.html>. Accessed November 30, 2023

CalMatters. *California Wildfire Map Tracker*. Available online at <https://calmatters.org/california-wildfire-map-tracker/>. Accessed November 29, 2023.

CalMatters. August 2023. *Why California Wildfires are Getting Worse*. Available online at <https://calmatters.org/newsletters/whatmatters/2023/08/california-wildfires/>. Accessed November 30, 2023.

Appendix B
Mitigation Monitoring and Reporting Program

Introduction

Public Resources Code Section §21081.6(a)(1)) and the California Environmental Quality Act (CEQA) Guidelines Section 15097 require public or lead agencies to establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either a mitigated negative declaration or specified environmental findings related to environmental impact reports.

A public or lead agency adopting measures to mitigate or avoid the significant impacts of a proposed project is required to ensure that the measures are fully enforceable, through permit conditions, agreements, or other means (Public Resources Code Section 21081.6(b)). The mitigation measures required by a public or lead agency to reduce or avoid significant project impacts may be incorporated into the design or program for the project, or made conditions of project approval as set forth in a Mitigation Monitoring and Reporting Program (MMRP). The program must be designed to ensure project compliance with mitigation measures during project implementation.

The following is the MMRP for the State Water Resources Control Board (State Water Board) Statewide Utility Wildfire General Order (General Order). The MMRP includes the mitigation measures identified in the Environmental Impact Report (EIR) that are required to address the significant impacts associated with the General Order.

Projects authorized under the General Order must comply with applicable General Order requirements and mitigation measures listed in the impact section for each resource area. The applicability of General Order requirements, and mitigation measures depend on the project activities, project location, and the potentially significant impacts of the individual project.

The required mitigation measures are summarized in Table 1-1; the full text of the impact analysis and mitigation measures are presented in Chapter 3 of the EIR.

Format of the MMRP

The MMRP is organized in a table format (Table 1-1) by resource. The column headings in the table are defined as follows:

- **Resource:** This column identifies the impacted resource.
- **Mitigation Measures:** This column identifies the mitigation measures associated with the impacts identified in the EIR.
- **Monitoring Responsibility:** This column provides a reporting area for assignment of responsibility of each monitoring and reporting task (for future individual projects).
- **Monitoring Compliance Record (Name/Day):** This column provides a reporting area for identifying who completed the mitigation measure and/or monitoring compliance and the date of completion (for future individual projects).

Table 1 - Summary of Mitigation Measures

Resource(s)	Mitigation Measures	Monitoring Responsibility	Monitoring Compliance Record (Name / Date)
Aesthetics	**Mitigation Measure AES-01: Reduction of Visibility of New Structures in Sensitive Landscapes** The Utility Service would design new structures (e.g., interest poles, additional hardware and equipment being added to existing poles, supporting structures and stub poles, access roads etc.) to minimize the impact on the existing visual character and quality associated in sensitive landscapes (e.g., in, along, or near national, state, or local parks, recreation areas, forest, scenic routes, vista views, or similar). To the extent feasible and consistent with safety of visible guardrails, substations and switching stations, infrastructure would be composed of a non-reflective material to help blend the surfaces in with the surroundings. Utility Services would prioritize constructing access roads in locations not visible to the public.		
Biological	**Mitigation Measure BIO-1: Agency Consultation, Permitting, and Mitigation** If sensitive biological resources occur or have potential to occur in the Project Area, the Utility Service would be required to consult with the applicable regulating agency or agencies to acquire permits, implement mitigation, and coordinate to avoid conflict with existing Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans. The regulatory agencies would likely require protocol surveys to qualify and quantify the extent of the sensitive biological resources in the Project Area. Permit conditions would likely require Utility Services to install resource-specific buffers in the Project Area prior to ground disturbance. Mitigation for Utility Services' impact to sensitive biological resources could include purchasing mitigation bank credits and/or enhancing or preserving existing populations or habitat in perpetuity.		

Resource(s)	Mitigation Measures	Monitoring Responsibility	Monitoring Compliance Record (Name / Date)
Biological (cont.)	Utility Services would be required to acquire a habitat conservation plan and incidental take permit under federal ESA Section 10(a) or a federal interagency consultation for an incidental take permit under Section 7 from USFWS for impacts to federally listed species. Utility Services would be required to acquire an incidental take permit pursuant to Fish and Game Code 2081 from CDFW for impacts to state listed species. Utility Service impacts to waters of the U.S. could require a CWA Section 404 permit from the U.S. Army Corps and a Section 401 Water Quality Certification from the State or Regional Water Board. Project Activity impacts to aquatic resources that are only under state jurisdiction could require Utility Services acquire a Waste Discharge Requirement from the State or Regional Water Board. Project Activity impacts to streambeds and lakes could require Utility Services acquire a Lake and Streambed Alternation Agreement from CDFW. Utility Services could be required to acquire a Coastal Development Permit from the CCC or local government managing the Local Coastal Program for Project Activities in the coastal zone. Project Activities in the Bay Area could require Utility Services acquire permits from the San Francisco Bay Conservation and Development. Utility Services would be subject to local agency regulations.		

Resource(s)	Mitigation Measures	Monitoring Responsibility	Monitoring Compliance Record (Name / Date)
Geology and Soils	**Mitigation Measure GEO-1 Adherence to Utility Earthwork Standards** Utility Services would conduct Project Activities in compliance with all applicable utility and earthwork regulatory standards, including those required by the California Public Utilities Commission, Institute of Electrical and Electronics Engineers 693 standards, California Building Code, and other existing federal, state, and local laws, regulations, and/or standards.		
	Mitigation Measure GEO-2: Conduct General Project-Level Analysis for Paleontological Sensitive Units Prior to breaking ground, Utility Services would be required to assess whether the proposed project occurs on a paleontological sensitive unit. If the proposed project occurs on a paleontological sensitive map unit, a qualified paleontologist would develop a paleontological resource monitoring and recovery plan. The paleontological resource monitoring and recovery plan would detail monitoring protocols for ground disturbance proposed in sediment with a moderate to high paleontological sensitivity. The monitoring and recovery plan would be designed and 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 the recovery program would be implemented. If mitigation measure GEO-2 determines the project occurs on a paleontological sensitive unit, mitigation measure GEO-3 below would also be implemented.		

Resource(s)	Mitigation Measures	Monitoring Responsibility	Monitoring Compliance Record (Name / Date)
Geology and Soils (cont.)	**Mitigation Measure GEO-3: Conduct Paleontological Training to Construction Crews** If after implementing mitigation measure GEO-2, the proposed project was determined to occur in a location with moderate to high paleontological sensitivity, a qualified paleontologist shall prepare paleontological resources sensitivity training materials prior to ground disturbance for use during project worker environmental training. This training shall be conducted by an environmental professional under the supervision of the qualified paleontologist. Prior to ground disturbance, all construction personnel onsite will receive the paleontological resources sensitivity training, even if they arrived after initial ground disturbance begins. The paleontological resource sensitivity training shall report the types of resources that could be encountered within the project site and the procedures to follow if they are found; if paleontological resources are detected, all work within at least 100 feet should be halted until a qualified paleontological resources specialist evaluates the item for its significance and records the item. 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.		

Resource(s)	Mitigation Measures	Monitoring Responsibility	Monitoring Compliance Record (Name / Date)
Hazards and Hazardous Materials	**Mitigation Measure HAZ-1: Compliance with Applicable Laws, Regulations, and Ordinances** Utility Services would be required to comply with applicable state, federal, and local laws, regulations, and requirements pertaining to hazardous materials and hazardous wastes. Relevant regulations include the Toxic Substances Control Act, CWA, Solid Waste Disposal Act, Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act. In addition, Utility Services storing hazardous materials that meet or exceed the state thresholds (i.e., 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for gasses) are required to prepare a Hazardous Materials Management Plan; the plan would detail best management practices to minimize the effects to incidental releases, and ensure proper handling, storage, and disposal of hazardous and nonhazardous waste. These regulations establish legal requirements for hazardous materials storage, transportation and handling, and agency oversight.		
	Mitigation Measure NOI-01: Adherence to Noise Standards and Policies per the Applicable General Plan, Noise Ordinances, or Other Agency Regulations Noise-generating Project Activities would follow the applicable general plan, noise ordinances, and other agency or agencies regulations for the jurisdiction located within the vicinity of the project.		

Resource(s)	Mitigation Measures	Monitoring Responsibility	Monitoring Compliance Record (Name / Date)
Noise	**Mitigation Measure NOI-01: Adherence to Noise Standards and Policies per the Applicable General Plan, Noise Ordinances, or Other Agency Regulations** Noise-generating Project Activities would follow applicable general plans, noise ordinances, and other agency or agencies regulations for the jurisdiction located within the vicinity of the project.		

Appendix C
Statewide Utility Wildfire General Order

(The General Order is posted on the California State Water Resources Control Board, 401 Water Quality Certification and Discharge Requirements Program webpage (https://waterboards.ca.gov/water_issues/programs/cwa401/statewide-utility-wildfire-mitigation-general-order.html).