

## 4.0 ENVIRONMENTAL IMPACT ANALYSIS

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### INTRODUCTION TO ENVIRONMENTAL ANALYSIS

Section 4 of this Environmental Impact Report (EIR) examines the potential environmental impacts of the proposed Amorco Marine Oil Terminal Lease Consideration (Project) and Project alternatives identified by the California State Lands Commission (CSLC) as Lead Agency under the California Environmental Quality Act (CEQA). This section includes analyses of environmental issue areas listed below:

- 4.1 – Operational Safety/Risk of Accidents;
- 4.2 – Biological Resources;
- 4.3 – Water Quality;
- 4.4 – Air Quality;
- 4.5 – Geology, Sediments, and Seismicity;
- 4.6 – Cultural Resources;
- 4.7 – Land-based Transportation;
- 4.8 – Land Use and Recreation;
- 4.9 – Noise; and
- 4.10 – Visual Resources, Light and Glare.

Each environmental issue area analyzed in this EIR provides background information and describes the environmental setting (baseline conditions) to help the reader understand the conditions that exist currently, prior to project implementation, and the relationship between those existing conditions and potential Project-related impacts. In addition, each section describes the approach to analysis that results in a determination whether an impact is “significant” or “less than significant.” Finally, individual sections recommend mitigation measures (MMs) to reduce significant impacts. Throughout Section 4, both impacts and the corresponding MMs are identified by a **bold letter-number designation** (e.g., Impact **BIO-1** and **MM BIO-1a**).

Based on an initial review and analysis, it is likely that the Project would have a less-than-significant impact, or no impact, on the environmental issue areas identified below. The primary reasons for these determinations are as follows:

- Air Quality. Measured and calculated criteria pollutant emissions are limited by the clean air plans included in the Bay Area Air Quality Management District (BAAQMD)-issued Title V Operating Permit encompassing the Golden Eagle Refinery and the Amorco Terminal. By virtue of the Permit, continued operation of the Amorco Terminal up to the permitted throughput levels would not result in significant air quality emission impacts because the limits set by the BAAQMD

1 were determined to be sufficient to render these emissions less than significant.  
2 As discussed in Section 4.3.3, recent years indicate that the Amorco Terminal use  
3 is well below its BAAQMD-permitted limit, and is expected to be so over the  
4 proposed lease period.

- 5 • Geology, Sediments, and Seismicity. The Amorco Terminal lies outside of the  
6 Alquist-Priolo earthquake fault zone, so surface faulting and ground rupture from  
7 known active faults is not anticipated. Tesoro Refining and Marketing Company,  
8 LLC (Tesoro) completed required Marine Oil Terminal Engineering and  
9 Maintenance Standards (MOTEMS) seismic upgrades at the Amorco wharf in June  
10 2013. Because potential seismic events have been considered within the upgrades  
11 design, potential adverse impacts are considered to be less than significant.
- 12 • Cultural Resources. No construction activities would occur as part of the lease  
13 renewal; therefore, there would be no disturbance to previously unrecorded or  
14 recorded historical, archaeological, or paleontological resources, or human  
15 remains. Because there are no shipwrecks in the immediate area of the Amorco  
16 Terminal, maintenance dredging would also have no impact on cultural resources.
- 17 • Land-based Transportation. No vehicular activity is associated with the existing  
18 Amorco Terminal operations beyond Terminal employees and associated delivery  
19 vehicles. Because there would be no construction associated with continued  
20 operation of the Amorco Terminal, no impacts would result.
- 21 • Noise. Based on the noise measurement data collected and observations of  
22 monitoring personnel (TRC 2013), Project operations (i.e., ship docking and  
23 unloading processes) do not measurably increase ambient noise at the Amorco  
24 Terminal or in the vicinity, and do not create discernible individual sources of  
25 increased noise that would allow the Project to approach the significance  
26 threshold.

## 27 **ASSESSMENT METHODOLOGY**

### 28 **Environmental Baseline**

29 The analysis of each issue area begins with an examination of the existing physical setting  
30 or baseline conditions as determined pursuant to section 15125, subdivision (a) of the  
31 State CEQA Guidelines that may be affected by the Project. The effects of the Project are  
32 defined as changes to the environmental setting that are attributable to Project  
33 components or operation.

34 Baseline conditions are the local and regional physical environmental conditions in the  
35 Project vicinity as they exist at the time the Notice of Preparation was published (May 1,  
36 2012), unless specified otherwise. The baseline conditions for the Project include the  
37 existing Amorco Terminal operations.

1 As discussed in Section 1.0, Introduction, information from relevant documents, including  
2 the Final EIRs for the Shell Martinez Marine Terminal Lease Consideration (CSLC 2011a,  
3 State Clearinghouse [SCH] No. 2004072114) and Shore<sup>1</sup> Terminals LLC Martinez Marine  
4 Terminal Lease Consideration (CSLC 2012, SCH No. 2007112108), have been  
5 referenced appropriate for the preparation of this EIR. Where appropriate, these  
6 information sources have been included.

## 7 **Significance Criteria**

8 Significance criteria are identified for each environmental issue area; these criteria serve  
9 as benchmarks for determining if a component action will result in a significant adverse  
10 environmental impact when evaluated against the baseline. According to State CEQA  
11 Guidelines section 15382, a significant effect on the environment means “a substantial,  
12 or potentially substantial, adverse change in any of the physical conditions within the area  
13 affected by the project...”

## 14 **Impact Analysis**

15 Impacts are classified as according to one of the following five categories:

- 16 • **Significant and Unavoidable** – significant adverse impact that remains significant  
17 after mitigation;
- 18 • **Less than Significant with Mitigation** – significant adverse impact that can be  
19 eliminated or reduced below an issue area’s significance criteria;
- 20 • **Less than Significant** – adverse impact that does not meet or exceed an issue  
21 area’s significance criteria;
- 22 • **Beneficial** – beneficial impact; or
- 23 • **No Impact** – the Project would not result in any impact to the resource area  
24 considered.

25 A determination will be made, based on the analysis of any impact within each affected  
26 environmental issue area and compliance with any recommended MM, of the level of  
27 impact remaining in comparison to pertinent significance criteria. If the impact remains  
28 significant, at or above the significance criteria, it is deemed to be “significant.” If a  
29 significant adverse impact has the potential to be reduced to a less-than-significant level  
30 with application of identified mitigation, then it is “potentially significant.” If an action  
31 creates an adverse impact above the baseline condition, but such impact does not meet  
32 or exceed the pertinent significance criteria, it is determined to be “less than significant.”  
33 An action that provides an improvement to an environmental issue area in comparison to  
34 baseline conditions is recognized as a “beneficial” impact.

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<sup>1</sup> Formerly known as the Wickland Terminals LLC Martinez Marine Oil Terminal, this marine oil terminal is currently known as the Shore Selby Marine Oil Terminal under current ownership titles.

1 **Formulation of Mitigation Measures and Mitigation Monitoring Program**

2 When significant impacts are identified, feasible MMs are formulated to eliminate or  
3 reduce the severity of impacts and focus on the protection of sensitive resources. The  
4 effectiveness of a MM is subsequently determined by evaluating the impact remaining  
5 after its application. Impacts that still meet or exceed the impact significance criteria after  
6 mitigation are considered residual impacts that remain significant. Implementation of  
7 more than one MM may be needed to reduce an impact below a level of significance. The  
8 MMs recommended in this document are identified in the impact sections and presented  
9 in a Mitigation Monitoring Program (MMP) provided in Section 8.

10 If any MMs are ultimately incorporated as part of a project's design, they are no longer  
11 considered MMs under CEQA. If they eliminate or reduce a potentially significant impact  
12 to a level below the significance criteria, they eliminate the potential for that significant  
13 impact since the "measure" is now a component of the action. Such measures  
14 incorporated into the project design have the same status as any "applicant-proposed  
15 measures." The CSLC's standard practice is to include all measures to eliminate or  
16 reduce the environmental impacts of a proposed project, whether applicant-proposed or  
17 recommended mitigation, in the MMP.

18 **Timing of Project Elements**

19 Tesoro is proposing to enter into a new 30-year lease of State sovereign land with the  
20 CSLC, allowing Tesoro to continue operations at the Amorco Terminal. The current  
21 Tesoro lease agreement (Lease PRC 3453.1) had an initial term of 25 years, beginning  
22 in 1984. Since 2008, Tesoro has operated under a "holdover" month-to-month tenancy  
23 agreement (i.e., the Terminal continues to operate under the terms of Lease PRC 3453.1  
24 while a decision on a new lease is pending). This EIR addresses the impacts of continued  
25 operation of the Amorco Terminal.

26 **Impacts of Alternatives**

27 Section 3 describes alternatives to the Project. Presentation of each issue area in Section  
28 4 includes the impact analysis for each alternative scenario. A summary of collective  
29 impacts of each alternative in comparison with the impacts of the Project is included within  
30 the Executive Summary.

1 **Cumulative Impacts Analysis**

2 Each issue area in Section 4 presents the cumulative impact scenario, the focus of which  
3 is to identify the potential impacts of the Project that might not be significant when  
4 considered alone, but that might contribute to a significant impact when viewed in  
5 conjunction with the other projects.

6 **FEDERAL AND STATE REGULATIONS**

7 Each of the issue areas is considered in terms of the federal, State, regional, and local  
8 laws, regulations, and policies that apply to the issue area. Federal and State laws,  
9 regulations and policies, including a summary of each, are provided in Table 4.0-1,  
10 organized by issue area. Applicable regional and local laws, regulations, and policies are  
11 summarized in each of the sections.

**Table 4-1: Major Federal and State Laws, Regulations, and Policies Potentially Applicable to the Project**

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
<b>4.0 Multiple Environmental Issues</b>		
U.S.	Coastal Zone Management Act (CZMA) (42 United States Code [USC] 4321 et seq.)	The CZMA recognizes a national interest in coastal zone resources and in the importance of balancing competing uses of those resources, giving full consideration to aesthetic, cultural and historic, ecological, recreational, and other values as well as the needs for compatible economic development. Pursuant to the CZMA, coastal states develop and implement comprehensive coastal management programs (CMPs) that describe uses subject to the CMP, authorities and enforceable policies, and coastal zone boundaries, among other elements. The CZMA also gives state coastal management agencies regulatory control ("federal consistency" review authority) over federal activities and federally licensed, permitted, or assisted activities, if the activity affects coastal resources. The California Coastal Commission and San Francisco Bay Conservation and Development Commission coordinate California's federally approved CMPs and federal consistency reviews within their respective jurisdictions.
CA	California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.)	The CEQA requires State and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project" that must receive some discretionary approval (i.e., the agency has the authority to deny the requested permit or approval) that may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment.
CA	California State Lands Commission (CSLC)	The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways, as well as certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust. The State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion. The CSLC's jurisdiction also includes a 3-nautical-mile-wide section of tidal and submerged land adjacent to the coast and offshore islands, including bays, estuaries, and lagoons; the waters and underlying beds of more than 120 rivers, lakes, streams, and sloughs; and 1.3 million acres of "school lands" granted to the State by the federal government to support public education. The CSLC is responsible for implementing State laws and regulations, including CEQA, for activities affecting State lands.
CA	McAteer-Petris Act (Gov. Code, § 66600 et seq.)	The McAteer-Petris Act of 1965 established the Bay Conservation and Development Commission (BCDC) as the agency responsible for protection of San Francisco Bay's critical and sensitive shoreline areas. The BCDC regulates San Francisco Bay Area dredging and filling to protect marshes, wetlands, and other resources. Its

U.S./CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
		jurisdiction includes the San Francisco Bay, 100 feet inland from the line of highest tidal action, salt ponds, managed wetlands, and certain other waterways and marshes.
CA	Marine Invasive Species Act (MISA) (Assembly Bill [AB] 433)	The MISA is charged with preventing or minimizing the introduction of non-indigenous species to California waters from vessels over 300 gross registered tons, capable of carrying ballast water, consistent with the Vessel General Permit. In general, regulations prohibit the discharge or exchange of ballast water unless the water is treated or is discharged and/or exchanged at the same port/place that it originated. Compliance with MISA is the responsibility of the vessel owners/operators and not the responsibility of marine terminals.
<b>4.1 Operational Safety/Risk of Accidents</b>		
U.S.	Oil Pollution Act (OPA) of 1990	The OPA includes provisions to expand prevention and preparedness activities, improve response capabilities, provide funding for natural resource damage assessments, ensure that shippers and oil companies pay the costs of spills that do occur, and establish an expanded research and development program. Pursuant to a Memorandum of Understanding established to divide areas of responsibility, the United States Coast Guard (USCG) is responsible for tank vessels and marine terminals, the United States Environmental Protection Agency (USEPA) for tank farms, and the Research and Special Programs Administration for pipelines; each of these agencies has developed regulations for its area of responsibility. In addition, the Secretary of Interior is responsible for spill prevention, oil-spill contingency plans, oil-spill containment and clean-up equipment, financial responsibility certification, and civil penalties for offshore facilities and associated pipelines in all federal and State waters. All facilities and vessels that have the potential to release oil into navigable waters are required by the OPA to have up-to-date oil spill response plans and to have submitted them to the appropriate federal agency for review and approval. Of particular importance in the OPA is the requirement for facilities and vessels to demonstrate that they have sufficient response equipment under contract to respond to and clean up a worst-case spill.
U.S.	40 Code of Federal Regulations (CFR) Parts 109, 110, 112, 113, and 114	The Spill Prevention Countermeasures and Control (SPCC) plans covered in these regulatory programs apply to oil storage and transportation facilities and terminals, tank farms, bulk plants, oil refineries, and production facilities, and bulk oil consumers (e.g., apartment houses, office buildings, schools, hospitals, government facilities). These regulations include minimum criteria for developing oil-removal contingency plans, prohibit discharge of oil such that applicable water quality standards would be violated, and address oil spill prevention and preparation of SPCC plans. They also establish financial liability limits and provide civil penalties for violations of oil spill regulations.
U.S.	33 CFR - Navigation and Navigable Waters	Title 33 regulates aids to navigation, vessel operations, anchorages, bridges, security of vessels, waterfront facilities, marine pollution financial responsibility and compensation, pollution, ports and waterways safety, boating safety, and deep-water ports. The USEPA is responsible for the National Contingency Plan and regulates disposal of recovered oil and is responsible for developing regulations for SPCC plans.
U.S.	46 CFR - Shipping	Title 46 regulates vessel inspections, marine casualties and investigations, tank vessel design, equipment requirements, manning levels, and operation.
U.S.	Resource Conservation and	The RCRA authorizes the USEPA to control hazardous waste from "cradle-to-grave," which encompasses its generation, transportation, treatment, storage, and disposal. The RCRA's Federal Hazardous and Solid Waste

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	Recovery Act (RCRA) (42 USC 6901 et seq.)	Amendments from 1984 include waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. The Department of Toxic Substances Control is the State lead agency for corrective action associated with RCRA facility investigations and remediation.
U.S.	California Toxics Rule (40 CFR 131)	In 2000, the USEPA promulgated numeric water quality criteria for priority toxic pollutants and other water quality standards provisions to be applied to waters in the State of California. The USEPA promulgated this rule based on the Administrator's determination that the numeric criteria are necessary in the State of California to protect human health and the environment. (Under Clean Water Act section 303(c)(2)(B), the USEPA requires states to adopt numeric water quality criteria for priority toxic pollutants for which the USEPA has issued criteria guidance, and the presence or discharge of which could reasonably be expected to interfere with maintaining designated uses.) These criteria have been adopted by the State; together with State-adopted designated uses, they satisfy Clean Water Act requirements for the establishment of water quality standards for California inland surface waters, enclosed bays, and estuaries.
U.S.	National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300)	Authorized under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC 9605, as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99 through 499; and by Clean Water Act section 311(d), as amended by the OPA, Pub. L. 101 through 380. The plan outlines requirements for responding to both oil spills and releases of hazardous substances. It specifies compliance, but does not require the preparation of a written plan. It also provides a comprehensive system for reporting, spill containment, and cleanup. The USCG and the USEPA co-chair the National Response Team. In accordance with 40 CFR 300.175, the USCG has responsibility for oversight of regional response for oil spills in coastal zones, as described in 40 CFR 300.120.
U.S.	Toxic Substances Control Act (TSCA) (15 USC 2601–2692)	The TSCA authorizes the USEPA to require reporting, record keeping, testing requirements, and restrictions related to chemical substances/mixtures. It also addresses production, importation, use, and disposal of specific chemicals, such as polychlorinated biphenyls, asbestos-containing materials, lead-based paint, and petroleum.
CA	California Code of Regulations, Title 2, Division 3, Chapter 1	<p>CSLC regulations pertain to oil and gas leases, exploration permits, and operating requirements, as described below.</p> <ul style="list-style-type: none"> <li>• Article 3.3 pertains to oil and gas production operations on tide and submerged lands under CSLC jurisdiction, and is applicable to operations conducted from mobile rigs, fixed offshore structures, and upland locations serving these leases. Provisions in this article include administrative prevention and elimination of any contamination or pollution of the ocean and tidelands, prevention of waste, regulations on wellhead equipment, subsurface safety valves, surface safety valves, remedial and well maintenance work, supervision and training, anomalous casing annulus pressure, subsurface injection, conversion of a well to fluid injection (requires prior approval of the CSLC), waste disposal, pressure relief valves, personal protective equipment, and pipeline inspections.</li> <li>• Article 3.4 pertains to oil and gas drilling and production to operations on State oil and gas leases located on State tide and submerged lands under the jurisdiction of the CSLC, and is applicable to operations conducted from mobile rigs, fixed offshore structures, and upland locations serving these leases. The article includes provisions for administration, prohibitions of pollution and contamination, suspension of operations and</li> </ul>



U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
		<p>corrective action, disposal of drill cuttings and drilling muds, oil spill contingency plan requirements, pollution control and removal equipment, critical operations and curtailment plans, and pollution reports to the USCG and State Office of Emergency Services.</p> <ul style="list-style-type: none"> <li>• Article 3.5, which pertains to disposal of royalty oil, gas, or other hydrocarbons, sets forth the procedures whereby the CSLC may enter into agreements for the disposition and sale of oil, gas, or other hydrocarbons.</li> <li>• Article 3.6, which pertains to operation manual and emergency planning, includes requirements for operators to prepare an operations manual describing equipment and procedures that the operator employs or would employ to protect the public health and safety and the environment and to prevent oil spills.</li> </ul>
CA	California Public Resources Code, Division 6, Parts 1 and 2	<p>The CSLC issues and administers oil and gas leases covering tide and submerged lands in accordance with the provisions of Division 6, Parts 1 and 2 of the California Public Resources Code, including the following sections:</p> <ul style="list-style-type: none"> <li>• Section 6829 includes provisions for specifying methods of operation and standard requirements for conducting operations properly; the prevention of waste, the protection of the safety and health of the workers; and the liability of the lessee for personal injuries and property damage; and</li> <li>• Sections 6873.2 and 6873.5 include provisions for carrying out the requirements of CEQA.</li> </ul>
CA	Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (OSPRA; Gov. Code, § 8670.1 et seq., Pub. Resources Code § 8750 et seq., and Rev. & Tax. Code, § 46001 et seq.)	<p>The OSPRA and its implementing regulations seek to protect State waters from oil pollution and to plan for the effective and immediate response, removal, abatement, and cleanup in the event of an oil spill. The Act requires applicable operators to prepare and implement marine oil spill contingency plans and to demonstrate financial responsibility, and requires immediate cleanup of spills following the approved contingency plans, and fully mitigating impacts on wildlife. The Act assigns primary authority to the Office of Spill Prevention and Response division within the California Department of Fish and Wildlife (CDFW) to direct prevention, removal, abatement, response, containment, and cleanup efforts with regard to all aspects of any oil spill in the marine waters of the State; the CSLC is also provided with authority for oil spill prevention from and inspection of marine facilities. Notification is required to the Governor's State Office of Emergency Services, which in turn notifies the response agencies, of all oil spills in the marine environment, regardless of size. The Act also created the Oil Spill Prevention and Administration Fund and the Oil Spill Response Trust Fund.</p>
CA	California Health and Safety Code Regulations, Titles 22 and 26	<p>California regulates the management of hazardous wastes in large part through the Health and Safety Code and California Code of Regulations, Titles 22 and 26.</p> <p>The Hazardous Material Release Response Plans and Inventory Law (Health &amp; Saf. Code, Ch. 6.95) is designed to reduce the occurrence and severity of hazardous materials releases. This State law requires businesses to develop a Release Response Plan for hazardous materials emergencies if they handle more than 500 pounds, 55 gallons, or 200 cubic feet of hazardous materials. In addition, the business must prepare a Hazardous Materials Inventory of all hazardous materials stored or handled at the facility over the above thresholds, and all hazardous materials must be stored in a safe manner.</p> <ul style="list-style-type: none"> <li>• The Hazardous Waste Control Law (Health &amp; Saf. Code, Ch. 6.5 and Cal. Code Regs., tit. 22 and 26) is the basic hazardous waste law for California. It establishes the criteria for defining hazardous waste and its safe handling, storage, treatment, and disposal. The law is designed to provide cradle-to-grave management of hazardous wastes and reduce the occurrence and severity of hazardous materials releases.</li> </ul>

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
<b>4.2 Biological Resources</b>		
U.S.	Endangered Species Act (ESA) (7 USC 136, 16 USC 1531 et seq.)	<p>The ESA, which is administered in California by the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), provides protection to species listed as threatened or endangered, or proposed for listing as threatened or endangered. Section 9 prohibits the “take” of any member of a listed species.</p> <ul style="list-style-type: none"> <li>• 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.”</li> <li>• Harass is “an intentional or negligent act or omission that creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns that include, but are not limited to, breeding, feeding, or sheltering.”</li> <li>• Harm is defined as “...significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering.”</li> </ul> <p>When applicants are proposing projects with a federal nexus that “may affect” a federally listed or proposed species, the federal agency is required to consult with the USFWS or NMFS, as appropriate, under Section 7, which provides that each federal agency must ensure that any actions authorized, funded, or carried out by the agency are not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of areas determined to be critical habitat.</p>
U.S.	Marine Mammal Protection Act (MMPA) (16 USC 1361 et seq.)	<p>The MMPA is designed to protect and conserve marine mammals and their habitats. It prohibits takes of all marine mammals in the United States (including territorial seas) with few exceptions. The NMFS may issue a take permit under section 104 if the activities are consistent with the purposes of the MMPA and applicable regulations at 50 CFR, Part 216. The NMFS must also find that the manner of taking is “humane” as defined in the MMPA. If lethal taking of a marine mammal is requested, the applicant must demonstrate that using a non-lethal method is not feasible.</p>
U.S.	Migratory Bird Treaty Act (MBTA) and Executive Order 13186	<p>The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nest, and requires harvests to be limited to levels that prevent overuse. Further, the MBTA prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase, or barter, of any migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11).</p>
U.S.	Nonindigenous Aquatic Nuisance Prevention and Control Act (16 USC 4701-4751)	<p>The 1990 Act was established to: (1) prevent unintentional introduction and dispersal of nonindigenous species into Waters of the United States through ballast water management and other requirements; (2) coordinate and disseminate information on federally conducted, funded, or authorized research, on the prevention and control of the zebra mussel and other aquatic nuisance species; (3) develop and carry out control methods to prevent, monitor, and control unintentional introductions of nonindigenous species from pathways other than ballast water exchange; (4) understand and minimize economic and ecological impacts of established nonindigenous aquatic nuisance species; and (5) establish a program of research and technology development and assistance to states in the management and removal of zebra mussels.</p>

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
U.S.	National Invasive Species Act (NISA) (33 CFR, Part 151, Subpart D)	Provisions of the 1990 Act, as amended by the NISA of 1996, are regulated by the USCG. The USCG requires ballast water management (i.e., ballast water exchange) for vessels entering United States waters from outside the 200-nautical-mile United States Exclusive Economic Zone.
U.S.	Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 USC 1801 et seq.)	The MSA is the primary law governing marine fisheries management in United States federal waters. The MSA was first enacted in 1976 and amended in 1996. Amendments to the 1996 MSA require the identification of Essential Fish Habitat (EFH) for federally managed species and the implementation of measures to conserve and enhance this habitat. Any project requiring federal authorization is required to complete and submit an EFH Assessment with the application and either show that no significant impacts to the essential habitat of managed species are expected or identify mitigations to reduce those impacts. Under the MSA, Congress defined EFH as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (16 USC 1802(10)). The EFH provisions of the MSA offer resource managers a means to heighten consideration of fish habitat in resource management. Pursuant to section 305(b)(2), federal agencies shall consult with the NMFS regarding any action they authorize, fund, or undertake that might adversely affect EFH.
U.S.	Estuary Protection Act 16 USC 1221-1226)	The Estuary Protection Act authorized the Secretary of the Interior to enter into cost-sharing agreements with states and subdivisions for permanent management of estuarine areas in their possession. Federal agencies were required to assess the impacts of commercial and industrial developments on estuaries.
CA	California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.)	The CESA provides for the protection of rare, threatened, and endangered plants and animals, as recognized by the CDFW, and prohibits the taking of such species without its authorization. Furthermore, the CESA provides protection for those species that are designated as candidates for threatened or endangered listings. Under the CESA, the CDFW has the responsibility for maintaining a list of threatened species and endangered species (Fish & G. Code, § 2070). The CDFW also maintains a list of candidate species, which are species that the CDFW has formally noticed as under review for addition to the threatened or endangered species lists. The CDFW also maintains lists of Species of Special Concern that serve as watch lists. Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State-listed endangered or threatened species may be present in the project site and determine whether the project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may affect a candidate species. The CESA requires a permit to take a State-listed species through incidental or otherwise lawful activities.
CA	California Wetlands Conservation Policy	States that there shall be no net loss of wetland acreage and a long-term gain in the quantity, quality, and permanence of California’s wetlands.
CA	Other Regulations	<ul style="list-style-type: none"> <li>• Lempert-Keene-Seastrand Oil Spill Prevention and Response Act – See above under Section 4.1.</li> <li>• The California Species Preservation Act (Fish &amp; G. Code, §§ 900-903) provides for the protection and enhancement of the amphibians, birds, fish, mammals, and reptiles of California.</li> <li>• Fish and Game Code sections 3503 and 3503.5 prohibit the taking and possession of native birds’ nests and eggs from all forms of needless take. These regulations also provide that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the</li> </ul>

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		<p>ests or eggs of any such bird except as otherwise provided by this Code or any regulation adopted pursuant thereto.</p> <ul style="list-style-type: none"> <li>• Fish and Game Code sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) designate certain species as “fully protected.” Fully protected species, or parts thereof, may not be taken or possessed at any time without permission by the CDFW.</li> <li>• Fish and Game Code section 3513 does not include statutory or regulatory mechanisms for obtaining an incidental take permit for the loss of non-game, migratory birds.</li> </ul>
CA	Other Plans	<ul style="list-style-type: none"> <li>• California Aquatic Invasive Species Management Plan, produced by the CDFW, provides a framework for agency coordination and identifies actions to minimize the harmful effects of aquatic invasive species.</li> <li>• California Noxious and Invasive Weed Action Plan, produced by the California Department of Food and Agriculture, to protect and enhance the California economy, natural environment, and safety of the citizens through awareness, cooperation, and action in the prevention and control of noxious and invasive weeds.</li> <li>• Delta Smelt Action Plan of 2005, produced by the Department of Water Resources and CDFW, is a 14-point program of scientific research activities and studies to identify and understand the causes of the Pelagic Organism Decline, and other actions to benefit the species.</li> </ul>
<b>4.3 Water Quality</b>		
U.S.	Clean Water Act (CWA) (33 USC 1251 et seq.)	<p>The CWA is comprehensive legislation that generally includes reference to the federal Water Pollution Control Act of 1972, and its substantial supplementation by the CWA of 1977. Both Acts were subsequently amended in 1981, 1987, and 1993. Overall, the CWA seeks to protect the nation’s water from pollution by setting water quality standards for surface water and by limiting the discharge of effluents into waters of the United States. These water quality standards are promulgated by the USEPA and enforced in California by the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs). The CWA also provides for development of municipal and industrial wastewater treatment standards and a permitting system to control wastewater discharges to surface waters. Under CWA section 404, the United States Army Corps of Engineers (USACE) has primary federal responsibility for administering regulations that concern waters of the United States wetlands, which are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration that are sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.</p>
U.S.	National Pollutant Discharge Elimination System (NPDES)	<p>The CWA also established the basic structure for regulating discharges of pollutants into the waters of the United States through the NPDES, which specifies minimum standards for the quality of discharged waters. It required states to establish standards specific to waterbodies and designate the types of pollutants to be regulated, including total suspended solids and oil. Under NPDES, all point sources that discharge directly into waterways are required to obtain a permit regulating their discharge. NPDES permits fall under the jurisdiction of the SWRCB or RWQCBs when the discharge occurs within the 3-nautical-mile territorial limit.</p>
U.S.	Rivers and Harbors Act (33 USC 401)	<p>This Act governs specified activities in “navigable waters” (waters subject to the ebb and flow of the tide or that are presently used, have been used in the past, or may be susceptible to use to transport interstate or foreign commerce). Specifically, it limits the construction of structures and the discharge of fill into navigable waters of the</p>

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
		United States. Under section 10 of the Rivers and Harbors Act, the building of any wharf, pier, jetty, or other structure is prohibited without Congressional approval, and excavation or fill within navigable waters requires approval from the USACE.
CA	Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) (Porter-Cologne)	<p>Porter-Cologne is the principal law governing water quality in California. The Act established the SWRCB and nine RWQCBs that have primary responsibility for protecting State water quality and the beneficial uses of State waters. Porter-Cologne also implements many provisions of the federal CWA, such as the NPDES permitting program. Pursuant to the CWA § 401, applicants for a federal license or permit for activities that may result in any discharge to waters of the United States must seek a Water Quality Certification (Certification) from the State in which the discharge originates. Such Certification is based on a finding that the discharge will meet water quality standards and other appropriate requirements of State law. In California, RWQCBs issue or deny certification for discharges within their jurisdiction. The SWRCB has this responsibility where projects or activities affect waters in more than one RWQCB's jurisdiction. If the SWRCB or a RWQCB imposes a condition on its Certification, those conditions must be included in the federal permit or license.</p> <p>Statewide water quality control plans include: individual RWQCB basin plans, the California Ocean Plan, San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan, Water Quality Control Plan for Enclosed Bays and Estuaries of California, and the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California. These plans contain enforceable standards for the various waters they address. For example:</p> <ul style="list-style-type: none"> <li>• <u>Basin Plan</u>. Porter-Cologne (§ 13240) requires each RWQCB to formulate and adopt a Basin Plan for all areas within the region. Each RWQCB must establish water quality objectives to ensure the reasonable protection of beneficial uses and a program of implementation for achieving water quality objectives within the basin plans. 40 CFR 131 requires each State to adopt water quality standards by designating water uses to be protected and adopting water quality criteria that protect the designated uses. In California, the beneficial uses and water quality objectives are the State's water quality standards.</li> <li>• The <u>California Ocean Plan</u> establishes water quality objectives for California's ocean waters and provides the basis for regulation of wastes discharged into the State's ocean and coastal waters. For example, the Ocean Plan incorporates the State water quality standards that apply to all NPDES permits for discharges to ocean waters.</li> </ul>
CA	Other California Water Code sections	<ul style="list-style-type: none"> <li>• California Water Code section 13142.5 provides marine water quality policies stating that wastewater discharges shall be treated to protect present and future beneficial uses, and, where feasible, to restore past beneficial uses of the receiving waters. The highest priority is given to improving or eliminating discharges that adversely affect wetlands, estuaries, and other biologically sensitive sites; areas important for water contact sports; areas that produce shellfish for human consumption; and ocean areas subject to massive waste discharge.</li> <li>• California Water Code section 13170.2 directs the SWRCB to formulate and adopt a water quality control plan for the ocean waters of California. The SWRCB first adopted this plan, known as the California Ocean Plan, in 1972. The California Water Code also requires a review of the plan at least every three years to ensure that</li> </ul>

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
		<p>current standards are adequate and are not allowing degradation to indigenous marine species or posing a threat to human health. The amendments to the California Ocean Plan are reviewed and approved by the USEPA under the CWA. The most recent update of the California Ocean Plan was completed in 2005. The California Ocean Plan establishes water quality objectives for California’s ocean waters and provides the basis for regulation of wastes discharged into the State’s coastal waters. The plan applies to point and non-point sources. In addition, the Ocean Plan identifies applicable beneficial uses of marine waters and sets narrative and numerical water quality objectives to protect beneficial uses.</p>
CA	California Clean Coast Act of 2005 (Senate Bill [SB] 771)	<p>The California Clean Coast Act went into effect January 1, 2006, and includes several requirements to reduce pollution of California waters from large vessels. The Act prohibits the operation of shipboard incinerators within 3 miles of the California coast; prohibits the discharge of hazardous wastes, other wastes, or oily bilge water into California waters or a marine sanctuary; prohibits the discharge of grey water and sewage into California waters from vessels with sufficient holding-tank capacity or vessels capable of discharging grey water and/or sewage to available shore-side reception facilities; and requires reports of prohibited discharges to the SWRCB.</p>
CA	Bay Protection and Toxic Cleanup Program Legislation	<p>In 1989, the Legislature required the SWRCB to develop sediment quality objectives (SQOs) as part of a comprehensive program to protect beneficial uses in enclosed bays and estuaries. The objectives are required for “toxic pollutants” that were identified in toxic hot spots or that were identified as pollutants of concern by the SWRCB. In 2009, the SWRCB adopted SQOs and an implementation policy for bays and estuaries in the State (Part 1). Part 1 includes narrative SQOs for the protection of aquatic life and human health, identification of the beneficial uses that these objectives are intended to protect, and requirements for program of implementation. The SWRCB is proposing amendments to the Sediment Quality Plan for Enclosed Bays and Estuaries to incorporate additional SQOs for the protection of wildlife and finfish and implementation policy.</p>
<b>4.4 Air Quality</b>		
U.S.	Federal Clean Air Act (FCAA) (42 USC 7401 et seq.)	<p>The FCAA requires the USEPA to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. National standards are established for ozone (O<sub>3</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead. In 2007, the United States Supreme Court ruled that carbon dioxide (CO<sub>2</sub>) is an air pollutant as defined under the FCAA, and that the USEPA has authority to regulate greenhouse gas (GHG) emissions. Pursuant to the 1990 FCAA amendments, the USEPA classifies air basins (or portions thereof) as in “attainment” or “nonattainment” for each criteria air pollutant, based on whether or not the NAAQS are achieved. The classification is determined by comparing monitoring data with State and federal standards.</p> <ul style="list-style-type: none"> <li>• An area is classified as in “attainment” for a pollutant if the pollutant concentration is lower than the standard.</li> <li>• An area is classified as in “nonattainment” for a pollutant if the pollutant concentration exceeds the standard.</li> <li>• An area is designated “unclassified” for a pollutant if there are not enough data available for comparisons.</li> </ul> <p>Pursuant to the 1990 FCAA amendments, the USEPA also regulates hazardous air pollutants (HAPs), which are pollutants that result in harmful health effects, but are not specifically addressed through the establishment of NAAQS. Instead, HAPs require the use of the maximum or best available control technology (MACT or BACT) to limit emissions.</p>

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
CA	California Clean Air Act of 1988 (CCAA) (AB 2595)	<p>The CCAA requires all air districts in the State to endeavor to achieve and maintain State ambient air quality standards for O<sub>3</sub>, CO, SO<sub>2</sub>, NO<sub>2</sub>, and PM; attainment plans for areas that did not demonstrate attainment of State standards until after 1997 must specify emission-reduction strategies and meet milestones to implement emission controls and achieve more healthful air quality. California's ambient air standards are generally stricter than national standards for the same pollutants. The State has also established standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The California Air Resources Board (CARB) sets air quality standards for the State at levels to protect public health and welfare with an adequate margin of safety. The California Ambient Air Quality Standards describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered in "attainment" if pollutant levels are continuously below or equal to the standards and violate the standards no more than once each year. The 1992 CCAA amendments divide O<sub>3</sub> nonattainment areas into four categories of pollutant levels (moderate, serious, severe, and extreme) to which progressively more stringent requirements apply.</p> <p>The CARB also regulates toxic air contaminants (TACs), which, similar to federal HAPs (see above), are pollutants that result in harmful health effects, but are not specifically addressed through the establishment of air quality standards. The CARB regulates TACs through the use of air toxic control measures (ATCMs); where there are federal MACTs or BACTs, the CARB must, at minimum, adopt these.</p>
CA	California Global Warming Solutions Act of 2006 (AB 32)	<p>Under AB 32, the CARB is responsible for monitoring and reducing GHG emissions in the State and for establishing a statewide GHG emissions cap for 2020 that is based on 1990 emissions levels. CARB (2009) has adopted the AB 32 Climate Change Scoping Plan (Scoping Plan), which contains the main strategies for California to implement to reduce CO<sub>2</sub> equivalent (CO<sub>2</sub>e) emissions by 169 million metric tons (MMT) from the State's projected 2020 emissions level of 596 MMT CO<sub>2</sub>e under a business-as-usual scenario. The Scoping Plan breaks down the amount of GHG emissions reductions the CARB recommends for each emissions sector of the State's GHG inventory, but does not directly discuss GHG emissions generated by construction activities.</p>
CA	Other	<ul style="list-style-type: none"> <li>• Pursuant to SB 97, the State Office of Planning and Research prepared guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, which were adopted by the Natural Resources Agency in 2009 and became effective in March 2010. These amendments to the State CEQA Guidelines establish a framework to address global climate change impacts in the CEQA process, and include revisions to the CEQA Environmental Checklist Form (Appendix G) and the Energy Conservation Appendix (Appendix F). A new section was also added to the State CEQA Guidelines (§ 15064.4) that provides an approach to assessing impacts from GHGs.</li> <li>• SB 375 (effective January 1, 2009) requires the CARB to develop regional reduction targets for GHG emissions. The targets apply to the regions covered by California's 18 metropolitan planning organizations, which are required to develop regional land use and transportation plans and demonstrate an ability to attain the proposed reduction targets by 2020 and 2035.</li> <li>• Executive Order S-01-07 set forth a low carbon fuel standard for California; the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020.</li> </ul>

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
		<ul style="list-style-type: none"> <li>• Executive Order S-3-05 established statewide GHG emission targets of reducing emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below the 1990 level by 2050.</li> <li>• Under California’s diesel fuel regulations, diesel fuel used in motor vehicles, except harbor craft, has been limited to 500 parts per million (ppm) sulfur since 1993. The sulfur limit was reduced to 15 ppm beginning September 1, 2006, and harbor craft were included starting in 2009.</li> <li>• The CARB’s Heavy Duty Diesel Truck Idling Rule (Cal. Code Regs., tit. 13, § 2485) prohibits heavy-duty diesel trucks from idling for longer than five minutes at a time. Truck idling for longer than five minutes while queuing is allowed, however, provided the queue is located beyond 100 feet from any homes or schools.</li> <li>• The Statewide Portable Equipment Registration Program (PERP) establishes a uniform program to regulate portable engines/engine-driven equipment units. Once registered in the PERP, engines and equipment units may operate throughout California without the need to obtain individual permits from local air districts.</li> </ul>
<b>4.5 Geology, Sediments, and Seismicity</b>		
U.S.	The Uniform Building Code (UBC)	The UBC designates and ranks regions of the United States, according to their seismic hazard potential, as Seismic Zones 1 through 4, with Zone 1 having the least seismic potential and Zone 4 having the highest seismic potential.
CA	California Building Code (CBC) (Cal. Code Regs., tit. 23)	The State of California provides a minimum standard for building design through the CBC, which is based on the UBC, but has been modified for conditions unique to California. The CBC is selectively adopted by local jurisdictions, based on local conditions.
CA	Alquist-Priolo Earthquake Fault Zoning Act (Pub. Resources Code, §§ 2621-2630)	This Act requires that "sufficiently active" and "well-defined" earthquake fault zones be delineated by the State Geologist. The criteria most commonly used to estimate fault activity in California are described in this Act, which addresses only surface fault rupture hazards. Legislative guidelines to determine fault activity status are based on the age of the youngest geologic unit offset by the fault. This legislation prohibits the construction of buildings used for human occupancy on active and potentially active surface faults. However, only those potentially active faults that have a relatively high potential for ground rupture are identified as fault zones. Therefore, not all potentially active faults are zoned under the Alquist-Priolo Earthquake Fault Zone, as designated by the State of California.
CA	California Seismic Hazards Mapping Act (Pub. Resources Code, § 2690 and following as Division 2, Chapter 7.8)	These regulations were promulgated for the purpose of promoting public safety by protecting against the effects of strong ground shaking, liquefaction, landslides, other ground failures, or other hazards caused by earthquakes. Special Publication 117, <i>Guidelines for Evaluating and Mitigating Seismic Hazards in California</i> (California Division of Mines and Geology 1997), constitutes the guidelines for evaluating seismic hazards other than surface fault rupture, and for recommending mitigation measures as required by Public Resources Code section 2695, subdivision (a). To date, the California Geological Survey has not zoned offshore California under the Seismic Hazard Mapping Act.
CA	Public Resources Code, Division 6, Parts 1 and 2	The CSLC issues and administers oil and gas leases covering tide and submerged lands in accordance with Division 6, Parts 1 and 2 of the Public Resources Code and Title 2 of the California Code of Regulations. Relevant provisions of the Public Resources Code include the following: section 6829 includes provisions for specifying methods of operation and standard requirements for conducting operations properly, the prevention of



U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
		waste, the protection of the safety and health of the workers, and the liability of the lessee for personal injuries and property damage; section 6829.2 includes provisions for the possible arresting or amelioration of land subsidence; and sections 6873.2 and 6873.5 include provisions for carrying out the requirements of CEQA.
CA	California Code of Regulations, Title 2	<p>The CSLC issues and administers oil and gas leases covering tide and submerged lands in accordance with Division 6, Parts 1 and 2 of the Public Resources Code and Title 2 of the California Code of Regulations. Relevant provisions of the California Code of Regulations include the following.</p> <ul style="list-style-type: none"> <li>• Articles 3 through 3.4 (Cal. Code Regs., tit. 2, §§ 2101-2142) provide regulations covering oil and gas leasing and operating requirements, oil and gas drilling and production regulations, and pollution control for leases located on State tide and submerged lands under the jurisdiction of the CSLC. The CSLC regulations are applicable to operations conducted from mobile rigs, fixed offshore structures, and upland locations serving these leases. Provision of these articles include protection of human health, regulations on wellhead equipment, subsurface safety valves, surface safety valves, remedial and well maintenance work, supervision and training, anomalous casing annulus pressure, subsurface injection, conversion of a well to fluid injection, waste disposal, pressure relief valves, personal protective equipment, and pipeline inspections.</li> <li>• Article 3.6 (Cal. Code Regs., tit. 2, §§ 2170-2175) includes (1) requirements for operators to prepare an operations manual describing equipment and procedures that the operator employs or will employ to protect public health and safety and the environment, and (2) provisions for development and maintenance of emergency response plans that include natural disaster response planning.</li> </ul>
<b>4.6 Cultural Resources</b>		
U.S.	National Historic Preservation Act (NHPA) (16 USC 470 et seq.)	This applies only to federal undertakings. Archaeological resources are protected through the NHPA, as amended, and its implementing regulation, Protection of Historic Properties (36 CFR 800), the Archaeological Historic Preservation Act, and the Archaeological Resources Protection Act. This Act presents a general policy of supporting and encouraging the preservation of prehistoric and historic resources for present and future generations by directing federal agencies to assume responsibility for considering the historic resources in their activities. The State implements the NHPA through its statewide comprehensive cultural resource surveys and preservation programs coordinated by the California Office of Historic Preservation (OHP) in the State Department of Parks and Recreation, which also advises federal agencies regarding potential effects on historic properties. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer is an appointed official who implements historic preservation programs within the State's jurisdictions. Under the NHPA, 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" (16 USC 470w [5]).
U.S.	Abandoned Shipwreck Act of 1987 (ASA) (43 USC 2101-2106);	Provides that any abandoned shipwreck embedded in a state's submerged lands, or that is located on a state's submerged lands and is included in or determined eligible for inclusion in the National Register, is the property of that state and subject to that state's jurisdiction.

4.0 Environmental Impact Analysis

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
U.S.	Archaeological and Historic Preservation Act (AHPA)	<p>The AHPA provides for the preservation of historical and archaeological data that might be irreparably lost or destroyed as a result of: (1) flooding, the building of access roads, the erection of workmen's communities, the relocation of railroads and highways, and other alterations of terrain caused by the construction of a dam by an agency of the United States or by any private person or corporation holding a license issued by any such agency; or (2) any alteration of the terrain caused as a result of a federal construction project or federally licensed project, activity, or program. This Act requires federal agencies to notify the Secretary of the Interior when they find that any federally permitted activity or program may cause irreparable loss or destruction of significant scientific, prehistoric, historical, or archaeological data. The AHPA built upon the national policy set out in the Historic Sites Act of 1935 "to provide for the preservation of historic American sites, buildings, objects, and antiquities of national significance...."</p>
U.S.	Archaeological Resources Protection Act (ARPA)	<p>The ARPA states that archaeological resources on public or Indian lands are an accessible and irreplaceable part of the nation's heritage and:</p> <ul style="list-style-type: none"> <li>• establishes protection for archaeological resources to prevent loss and destruction due to uncontrolled excavations and pillaging;</li> <li>• encourages increased cooperation and exchange of information between government authorities, the professional archaeological community, and private individuals having collections of archaeological resources prior to the enactment of this Act;</li> <li>• establishes permit procedures to permit excavation or removal of archaeological resources (and associated activities) located on public or Indian land; and</li> <li>• defines excavation, removal, damage, or other alteration or defacing of archaeological resources as a "prohibited act" and provides for criminal and monetary rewards to be paid to individuals furnishing information leading to the finding of a civil violation or conviction of a criminal violator.</li> </ul> <p>ARPA has an enforcement provision (which provides for the imposition of both criminal and civil penalties against violators of the Act) and a permitting component (which allows for recovery of certain artifacts consistent with the standards and requirements of the National Park Service's Federal Archeology Program).</p>
U.S.	Native American Graves Protection and Repatriation Act (NAGPRA)	<p>For activities on federal lands, the NAGPRA, enacted in 1990, provides a framework for determining the rights of lineal descendants and Native American tribes to repatriate Native American remains, funerary objects, sacred objects, or other objects of cultural patrimony with which they are associated. NAGPRA applies to items found on federal lands, and to agencies that obtain federal funding. It requires consultation with appropriate Indian tribes prior to the intentional excavation, or removal after inadvertent discovery, of several kinds of cultural items, including human remains and objects of cultural patrimony.</p>
U.S.	Paleontological Resource Preservation Act	<p>Enacted on March 30, 2009, the Act requires the Secretaries of the Interior and Agriculture to manage and protect paleontological resources on federal lands using scientific principles and expertise. New policies from these agencies regarding paleontological resources are in progress.</p>

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
CA	CEQA ( <i>see also under Multiple Environmental Issues</i> )	As the CEQA lead agency, the CSLC is responsible for complying with all provisions of the CEQA and State CEQA Guidelines that relate to “historical resources.” A historical resource includes: (1) a resource listed in, or eligible for listing in, the California Register of Historic Resources (CRHR); (2) a resource included in a local register or identified as significant in an historical resource surveys; and (3) any resource that a lead agency determines to be historically significant for the purposes of CEQA, when supported by substantial evidence in light of the whole record. The CRHR was created to identify resources deemed worthy of preservation on a State level and was modeled closely after the National Register. The criteria, which are nearly identical to those of the National Register but focus on resources of statewide significance (see State CEQA Guidelines § 15064.5, subd. (a)(3)), are defined as any resource that meets any of the following 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 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; or (4) has yielded, or may be likely to yield, information important in prehistory or history. Properties listed, or formally designated as eligible for listing, on the National Register are automatically listed on the CRHR, as are certain State Landmarks and Points of Interest. A lead agency is not precluded from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1, subdivision (j), or 5024.1 (State CEQA Guidelines § 15064.5, subd. (a)(4)).
CA	California Register of Historical Resources	This resource provides an authoritative guide to identify the state’s historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from substantial adverse change.
CA	California Native American Graves Protection and Repatriation Act (Cal NAGPRA)	The Cal NAGPRA of 2001 is contained in the California Health and Safety Code sections 8010-8021 and 8025 to 8030. Cal NAGPRA provides for the repatriation of human remains and cultural items in the possession or control of a State or local agency or museum to the culturally affiliated California Native American tribe. This law defines the term California Native American tribe to include non-federally recognized groups.
CA	California Public Resources Code section 5097.5	Section 5097.5 prohibits excavation or removal of any “vertebrate paleontological site or historical feature situated on public lands, except with the express permission of the public agency having jurisdiction over such lands.” Penal Code section 623 spells out regulations for the protection of caves, including their natural, cultural, and paleontological contents. It specifies that no “material” (including all or any part of any paleontological item) will be removed from any natural geologically formed cavity or cave.
CA	California Public Resources Code, sections 6309, 6313, and 6314	Provides for CSLC administration of the Shipwreck and Historic Maritime Resources Program; establishes that title to all of the State’s abandoned shipwrecks and all archaeological sites and historic resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the CSLC; establishes that any submerged archaeological or submerged historic resource remaining in State waters for more than 50 years shall be presumed to be significant; establishes requirements for salvage when justified by an educational, scientific, or cultural purpose, or the need to protect the resource; and establishes penalties for unauthorized removal or damage to archaeological or historic resources located on State submerged lands and that are the property of the State.

4.0 Environmental Impact Analysis

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
CA	Health and Safety Code section 7050.5	This code states that if human remains are exposed during construction, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code section 5097.998. The Coroner has 24 hours to notify the Native American Heritage Commission (NAHC) if the remains are determined to be of Native American descent. The NAHC will contact most likely descendants, who may recommend how to proceed.
<b>4.7 Land-based Transportation</b>		
U.S.	Hazardous Materials Transportation Act of 1974	The Hazardous Materials Transportation Act of 1974, 49 CFR 397.9, directs the United States Department of Transportation (DOT) to establish criteria and regulations for the safe transportation of hazardous materials. There are no specific conformance measures required under this law.
CA	Caltrans	Caltrans is responsible for the design, construction, maintenance, and operation of the California State Highway System and the portion of the Interstate Highway System within State boundaries. Chapter 2, Article 3 of the Vehicle Code defines the powers and duties of the California Highway Patrol, which has enforcement responsibilities for the vehicle operation and highway use in the State.
<b>4.8 Land Use and Recreation</b>		
CA	CEQA (see also under Multiple Environmental Issues)	The State CEQA Guidelines require State and local agencies to analyze and publicly disclose environmental impacts, including land use and recreation, of proposed projects and adopt all feasible measures to mitigate those impacts.
<b>4.9 Noise</b>		
U.S.	Noise Control Act (42 USC 4910)	The Noise Control Act required the USEPA to establish noise emission criteria, as well as noise testing methods (40 CFR Chapter 1, Subpart Q). These criteria generally apply to interstate rail carriers and to some types of construction and transportation equipment. The USEPA published a guideline (USEPA 1974) containing recommendations for acceptable noise level limits affecting residential land use of 55 dBA L <sub>dn</sub> for outdoors and 45 dBA L <sub>dn</sub> for indoors.
U.S.	Department of Housing and Urban Development Environmental Standards (24 CFR Part 51)	The Department of Housing and Urban Development Environmental Standards put forth the following exterior noise standards for new home construction (for interior noise levels, a goal of 45 decibels on the A-weighted scale (dBA) is set forth and attenuation requirements are geared to achieve that goal): <ul style="list-style-type: none"> <li>• 65 L<sub>dn</sub> or less – Acceptable</li> <li>• 65 L<sub>dn</sub> and &lt; 75 L<sub>dn</sub> – Normally unacceptable, appropriate sound attenuation measures must be provided</li> <li>• &gt; 75 L<sub>dn</sub> – Unacceptable</li> </ul>
U.S.	NTIS 550\9-74-004, 1974	In response to a federal mandate, the USEPA provided guidance in NTIS 550\9-74-004, 1974 (“Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety”), commonly referenced as the “Levels Document” that establishes an L <sub>dn</sub> of 55 dBA as the requisite level, with an adequate margin of safety, for areas of outdoor uses, including residences and recreation areas. The USEPA recommendations contain a factor of safety and do not consider technical or economic feasibility (i.e., the document identifies safe levels of environmental noise exposure without consideration for achieving these levels or other potentially relevant considerations), and should not be construed as standards or regulations.

U.S./ CA	Law/Regulation/Plan	Key Elements and Thresholds/Applicable Permits
<b>4.10 Visual Resources, Light and Glare</b>		
CA	California Scenic Highway Program	The California Scenic Highway Program, managed by Caltrans, was created to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. State highways identified as scenic, or eligible for designation, are listed in California Streets and Highways Code § 260 et seq.

Abbreviations commonly used in this table include (see also List of Abbreviations and Acronyms): AB = Assembly Bill; Caltrans = California Department of Transportation; CARB = California Air Resources Board; CDFW = California Department of Fish and Wildlife; CEQA = California Environmental Quality Act; CFR = Code of Federal Regulations; CSLC = California State Lands Commission; CWA = Clean Water Act; CZMA = Coastal Zone Management Act; NMFS = National Marine Fisheries Service; RWQCB = Regional Water Quality Control Board; SB = Senate Bill; SWRCB = State Water Resources Control Board; USACE = United States Army Corps of Engineers; USC = United States Code; USCG = United States Coast Guard; USEPA = United States Environmental Protection Agency; USFWS = United States Fish and Wildlife Service