APPENDIX A

Abridged List of Major Federal and State Laws, Regulations, and Policies Potentially Applicable to the Chevron HDD3 Project
(Updated: June 2018)

Frequently Used Abbreviations

(see also List of Abbreviations and Acronyms in Table of Contents)

§	Section
AB	Assembly Bill
BCDC	San Francisco Bay Conservation and Development Commission
Cal. Code Regs.	California Code of Regulations
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO_2; CO_2e	Carbon Dioxide; Carbon Dioxide Equivalent
CSLC	California State Lands Commission
EO	Executive Order
Fed. Reg.	Federal Register
GHG	Greenhouse Gas
MMPA	Marine Mammal Protection Act
MOU	Memorandum of Understanding
NMFS	National Marine Fisheries Service
NOx	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
P.L.	Public Law
Pub. Resources Code	Public Resources Code
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SWRCB	State Water Resources Control Board
U.S.C.	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

APPENDIX A

Appendix A identifies major federal and state laws, regulations and policies (local or regional are presented in each issue area chapter) potentially applicable to the Chevron HDD3 Project.[1]

MULTIPLE ENVIRONMENTAL ISSUES

Multiple Environmental Issues (Federal)

Coastal Zone Management Act (42 U.S.C. § 4321 et seq.)

The Coastal Zone Management Act 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 Act, coastal states develop and implement comprehensive coastal management programs, authorities and enforceable policies, and coastal zone boundaries, among other elements. The Act 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; such activities include military projects at coastal locations and outer continental shelf oil and gas leasing, exploration and development. The California Coastal Commission (CCC) and San Francisco Bay Conservation and Development Commission (BCDC) coordinate California's federally approved coastal management programs and federal consistency reviews within their respective jurisdictions.

Multiple Environmental Issues (State)

California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et seq.)

CEQA requires state and local agencies to identify 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 authority to deny the requested permit or approval) which may cause either a direct physical change, or a reasonably foreseeable indirect change, in the environment.

[1] Environmental issue areas are found in State California Environmental Quality Act Guidelines Appendix G (https://www.opr.ca.gov/docs/Appendix_G_AB_52_Update_2016.pdf).

Multiple Environmental Issues (State)

California State Lands Commission (CSLC) and the Common Law Public Trust

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. As general background, 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 U.S. 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 section of tidal and submerged land 3 nautical miles wide 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 also has leasing jurisdiction, subject to certain conditions, over mineral extraction from State property owned and managed by other State agencies (Pub. Resources Code, § 68910, subd. (b)), and is responsible for implementing a variety of State regulations for activities affecting these State Trust Lands, including implementation of CEQA.

McAteer-Petris Act (Gov. Code, § 66600 et seq.) and California Federal Consistency Program

The McAteer-Petris Act of 1965 established the BCDC as the agency responsible for protection of San Francisco Bay's critical and sensitive shoreline areas and for implementing the McAteer-Petris Act. The Act directs BCDC to exercise its authority to issue or deny permit applications for placing fill, dredging, or changing the use of any land, water, or structure within the area of its jurisdiction (the Bay waters and 100 feet inland from the line of highest tidal action) to protect marshes, wetlands, certain other waterways and marshes, and other resources. Pursuant to the requirements of the McAteer-Petris Act, BCDC developed several plans, including the San Francisco Bay Plan, which provides the policies and maps that guide protection and the development of the bay and shoreline within BCDC's jurisdiction, and the Suisun Marsh Protection Plan to preserve and enhance the quality and diversity of the Suisun Marsh aquatic and wildlife habitats and to assure retention of upland areas adjacent to the Marsh in uses compatible with its protection. BCDC also exercises authority under Section 307 of the federal Coastal Zone Management Act (16 U.S.C. § 1456) over federal activities and development projects and non-federal projects that require a federal permit or license or are supported by federal funding. The consistency provisions of Section 307 provide that any federal activity, including a federal development project, that affects any land or water use or natural resource of the BCDC's coastal zone, must be conducted in a manner that is "consistent to the maximum extent practicable" with the enforceable policies of the BCDC's federally- approved coastal management program. Similarly, any nonfederal activity that requires either a federal permit or license or is supported by federal financial assistance that affects the BCDC's coastal zone must be conducted in a manner that is fully consistent with the enforceable policies of the BCDC's federally-approved coastal management program.

AESTHETICS

There are no major federal laws, regulations, and policies potentially applicable to this project

Aesthetics (State)

San Francisco Bay Plan

The Bay Plan provides BCDC policies to ensure and maintain appearance, design, and scenic views around San Francisco Bay.

AGRICULTURE AND FORESTRY RESOURCES

There are no major federal laws, regulations, and policies potentially applicable to this project

Agriculture and Forestry Resources (State)

Williamson Act (Gov. Code, §§ 51200-51207)

This Act enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use, and provides landowners with lower property tax assessments in return. Local government planning departments are responsible for the enrollment of land into Williamson Act contracts and may also identify compatible uses permitted with a use permit. Generally, any commercial agricultural use would be permitted within any agricultural preserve.

AIR QUALITY

Air Quality (Federal)

Federal Clean Air Act (FCAA) (42 U.S.C. § 7401 et seq.)

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, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter (PM10 and PM2.5), and lead. The FCAA mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards; plans must include pollution control measures that demonstrate how the standards would be met. 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. HAPs require the use of the maximum or best available control technology to limit emissions. USEPA classifies air basins (or portions thereof) as in "attainment" or "nonattainment" for each criteria air pollutant by comparing monitoring data with State and Federal standards to determine if the NAAQS are achieved. Areas are classified for a pollutant as follows:

- "Attainment" – the pollutant concentration is lower than the standard.
- "Nonattainment" – the pollutant concentration exceeds the standard.
- "Unclassified" – there are not enough data available for comparisons.

In 2007, the U.S. Supreme Court ruled that carbon dioxide (CO_2) is an air pollutant as defined under the FCAA, and that the USEPA has authority to regulate greenhouse gas (GHG) emissions.

The FCAA allows delegation of the enforcement of many of the federal air quality regulations to the states. In California, the California Air Resources Board (CARB) is responsible for enforcing air pollution regulations in concert with regional air pollution control districts.

Non-Road Diesel Engine Emission Standards.

The USEPA has established a series of cleaner emission standards for new off-road diesel engines culminating in the Tier 4 Final Rule of June 2004 (USEPA 2004a). The Tier 1, Tier 2, Tier 3, and Tier 4 standards require compliance with progressively more stringent emission standards. Tier 1 standards were phased in from 1996 to 2000 (year of manufacture), depending on the engine horsepower category. Tier 2 standards were phased in from 2001 to 2006, and the Tier 3 standards were phased in from 2006 to 2008. The Tier 4 standards

Air Quality (Federal)

complement the latest 2007 and later on-road heavy-duty engine standards by requiring 90 percent reductions in diesel particulate matter and NOx when compared against current emission levels. The Tier 4 standards were phased in starting with smaller engines in 2008 until all but the very largest diesel engines were to meet NOx and particulate matter (PM) standards in 2015.

On-Road Trucks Emission Standards.

To reduce emissions from on-road, heavy-duty diesel trucks, the USEPA established a series of cleaner emission standards for new engines, starting in 1988. These emission standards regulations have been revised over time. The latest effective regulation, the 2007 Heavy-Duty Highway Rule, provides for reductions in PM, NOx, and non-methane hydrocarbon emissions that were phased in during the model years 2007 through 2010 (USEPA 2000).

Non-Road Diesel Fuel Rule.

In May 2004, the USEPA set sulfur limits for non-road diesel fuel, including locomotives but not marine fuel. Under this rule, diesel fuel used by line-haul locomotives began being limited to 500 ppm starting June 1, 2007, and 15 ppm starting January 1, 2012 (USEPA 2004b), at which time it would be equivalent to sulfur content restrictions of the California Diesel Fuel Regulations.

Air Quality (State)

California Clean Air Act of 1988 (CCAA)

The CCAA requires all air districts in the State to endeavor to achieve and maintain State ambient air quality standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and particulate matter. 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 (CAAQS) are generally stricter than national standards for the same pollutants; California also has standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The CAAQS describe adverse conditions (i.e., 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 ozone nonattainment areas into four categories of pollutant levels (moderate, serious, severe, and extreme) to which progressively more stringent requirements apply. CARB also regulates toxic air contaminants (pollutants that result in harmful health effects, but are not specifically addressed by air quality standards) using air toxic control measures.

California Air Resources Board Programs, Regulations, and Standards

- **California Diesel Fuel Regulations** (Cal. Code Regs., tit. 13, §§ 2281-2285; Cal. Code Regs., tit. 17, § 93114). In 2004, the CARB set limits on the sulfur content of diesel fuel sold in California for use in on-road and off-road motor vehicles. Harbor craft and intrastate locomotives were later included by a 2004 rule amendment (CARB 2005a). Under this rule, diesel fuel used in motor vehicles except harbor craft and intrastate locomotives has been limited to 500 ppm sulfur since 1993. The sulfur limit was reduced to 15 ppm beginning on September 1, 2006. Diesel fuel used in harbor craft in the SCAB also was limited to 500 ppm sulfur starting January 1, 2006, and was lowered to 15 ppm sulfur on September 1, 2006. Diesel fuel used in intrastate locomotives (switch locomotives) was limited to 15 ppm sulfur starting on January 1, 2007.
- **California Diesel Risk Reduction Plan.** CARB has adopted several regulations that are meant to reduce the health risk associated with on- and off-road and stationary diesel engine operation. This plan recommends many control measures with the goal of an 85 percent reduction in diesel particulate matter emissions by 2020. The regulations noted below, which

Air Quality (State)

may also serve to significantly reduce other pollutant emissions, are all part of this risk reduction plan.

- **Emission Standards for On-Road and Off-Road Diesel Engines.** Similar to the USEPA for on-road and off-road emissions described above, the CARB has established emission standards for new on-road and off-road diesel engines. These regulations have model year based emissions standards for NOx, hydrocarbons, CO, and PM.
- **Heavy Duty Diesel Truck Idling Rule – Heavy Duty Diesel Truck Idling Regulation.** This CARB rule became effective February 1, 2005, and prohibits heavy-duty diesel trucks from idling for longer than 5 minutes at a time, unless they are queuing and provided the queue is located beyond 100 feet from any homes or schools (CARB 2006).
- **In-Use Off-Road Vehicle Regulation** (Cal. Code Regs., tit. 13, § 2449). The State has also enacted a regulation to reduce diesel particulate matter and criteria pollutant emissions from in-use off-road diesel-fueled vehicles. This regulation provides target emission rates for PM and NOx emissions from owners of fleets of diesel-fueled off-road vehicles, and applies to off-road equipment fleets of three specific sizes, as follows:
  - Small Fleet – Fleet or municipality with equipment totaling less than or equal to 2,500 hp, or municipal fleet in lower population area, captive attainment fleet, or non-profit training center regardless of horsepower.
  - Medium Fleet – Fleet with equipment totaling 2,501 to 5,000 hp.
  - Large Fleet – Fleet with equipment totaling more than 5,000 hp, or all State and federal government fleets regardless of total hp.

  The target emission rates for these fleets are reduced over time. Specific regulation requirements:
  - Limit on idling, requiring a written idling policy, and disclosure when selling vehicles;
  - Require all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System, DOORS) and labeled;
  - Restrict the adding of older vehicles into fleets starting on January 1, 2014; and
  - Require fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). (CARB 2014)
- **Off-Road Mobile Sources Emission Reduction Program.** The CCAA mandates that CARB achieve the maximum degree of emission reductions from all off-road mobile sources (e.g., construction equipment, marine vessels, and harbor craft) to attain state ambient air quality standards. Tier 2, Tier 3, and Tier 4 exhaust emissions standards apply to off-road equipment. In addition, CARB fleet requirements specify how equipment that is already in use can be retrofitted to achieve lower emissions using the CARB-verified retrofit technologies. U.S. Environmental Protection Agency (USEPA) standards for marine compression-ignition engines address NOx and diesel particulate matter emissions, depending on engine size and year of manufacture. Tier 2 standards for marine engines were phased in for model years 2004 to 2007, and Tier 3 standards were phased in for currently available technologies to reduce NOx and PM, starting in 2009.
- **Statewide Portable Equipment Registration Program (PERP)**. The PERP establishes a uniform program to regulate portable engines and portable engine-driven equipment units (CARB 2005b). Once registered in the PERP, engines and equipment units may operate throughout California without the need to obtain individual permits from local air districts, if the equipment is located at a single location for no more than 12 months.

Health and Safety Code

- **Sections 25531-25543** set forth changes in four areas: (1) provides guidelines to identify a more realistic health risk; (2) requires high-risk facilities to submit an air toxic emission reduction plan; (3) holds air pollution control districts accountable for ensuring that plans

Air Quality (State)

achieve objectives; and (4) requires high-risk facilities to achieve their planned emission reductions

- **The Air Toxics Hot Spots Information and Assessment Act (§ 44300 et seq.)** provides for the regulation of over 200 toxic air contaminants. Under the act, local air districts may request that a facility account for its toxic air contaminant emissions. Local air districts then prioritize facilities based on emissions; high priority designated facilities must submit a health risk assessment.

BIOLOGICAL RESOURCES

Biological Resources (Federal)

Federal Endangered Species Act (FESA) (7 U.S.C. § 136, 16 U.S.C. § 1531 et seq.)

The FESA, which is administered in California by the USFWS and National Marine Fisheries Service (NMFS), provides protection to species listed as threatened or endangered, or proposed for listing as threatened or endangered. When applicants propose projects with a federal nexus that "may affect" a federally listed or proposed species, the federal agency must (1) consult with the USFWS or NMFS, as appropriate, under Section 7, and (2) 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. Section 9 prohibits the "take" of any member of a listed species.

- **Take –** To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct
- **Harass –** 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
- **Harm –** 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

Fish and Wildlife Coordination Act of 1958

This Act requires that whenever a body of water is proposed to be controlled or modified, the lead agency must consult with the state and federal agencies responsible for fish and wildlife management (e.g., USFWS, CDFW, and National Oceanic and Atmospheric Administration). The Act allows for recommendations addressing adverse impacts associated with a proposed project, and for mitigating or compensating for impacts on fish and wildlife.

Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. § 1801 et seq.)

The MSA governs marine fisheries management in Federal waters. The MSA was first enacted in 1976 and amended by the Sustainable Fisheries Act of 1996 and the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act in 2007. Amendments 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, such as a U.S. Army Corps of Engineers permit, 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 U.S.C. § 1802(10)). The EFH provisions of the MSA offer resource managers a means to heighten consideration of fish habitat in resource management. Federal agencies shall consult with the NMFS regarding any action they authorize, fund, or undertake that might adversely affect EFH (§ 305(b)(2)).

Biological Resources (Federal)

Migratory Bird Treaty Act (MBTA) (16 U.S.C. § 703-712)

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). The USFWS issues permits for take of migratory birds for activities such as scientific research, education, and depredation control, but does not issue permits for incidental take of migratory birds.

Executive Orders (EO)

- **EO 11990** requires federal agencies to provide leadership and take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands. Each agency, to the extent permitted by law, must (1) avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds there is no practical alternative to such construction or the proposed action includes all practical measures to minimize harm to wetlands that may result from such use; (2) take into account economic, environmental and other pertinent factors in making this finding; and (3) provide opportunity for early public review of any plans or proposals for new construction in wetlands.
- **EO 13112** requires federal agencies to use authorities to prevent introduction of invasive species, respond to and control invasions, and provide for restoration of native species and habitat conditions in invaded ecosystems; also established the Invasive Species Council, which prepares a National Invasive Species Management Plan that details and recommends performance-oriented goals and objectives and measures of success for federal agencies
- **EO 13186** sets forth responsibilities of federal agencies to protect migratory birds.

Other

- **Bald and Golden Eagle Protection Act** makes it illegal to import, export, take, sell, purchase or barter any bald eagle or golden eagle or parts thereof.
- **Clean Water Act and Rivers and Harbors Act** (*see Hydrology and Water Quality section*)
- **Estuary Protection Act (16 U.S.C. § 1221-1226)** authorizes federal agencies to assess the impacts of commercial and industrial developments on estuaries.

Biological Resources (State)

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 CESA requirements, 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 proposed project will have a significant impact on such species. The CDFW encourages informal consultation on any proposed project that may affect a candidate species. The CESA also requires a permit to take a State-listed species through incidental or otherwise lawful activities (§ 2081, subd. (b))

Lake and Streambed Alteration Program (Fish & G. Code, §§ 1600-1616)

These regulations require that the CDFW: be notified of activities that would interfere with the natural flow of, or substantially alter, the channel, bed, or bank of a lake, river, or stream;

Biological Resources (State)
determines if the activity may substantially adversely affect an existing fish and wildlife resource; and issue a Streambed Alteration Agreement if applicable.
Other relevant California Fish and Game Code sections and Programs/Plans • **Section 1900 et seq.** (California Native Plant Protection Act) is intended to preserve, protect, and enhance endangered or rare native plants in California. 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 in such small numbers throughout its range that it may become endangered. The Act includes provisions that prohibit taking of listed rare or endangered plants from the wild and a salvage requirement for landowners. • **Sections 3503 & 3503.5** prohibit take and possession of native birds' nests and eggs from all forms of needless take and 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 nests or eggs of any such bird except as otherwise provided by this Code or any regulation adopted pursuant thereto. • **Sections 3511** (birds), **4700** (mammals), **5050** (reptiles and amphibians), & **5515** (fish) designate certain species as "fully protected;" such species, or parts thereof, may not be taken or possessed at any time without permission by the CDFW. • **Section 3513** does not include statutory or regulatory mechanism for obtaining an incidental take permit for the loss of non-game, migratory birds. • **California Aquatic Invasive Species Management Plan** provides a framework for agency coordination and identifies actions to minimize harmful effects of aquatic invasive species. • **Delta Smelt Action Plan** of 2005 (in coordination with the Department of Water Resources) 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.
Other • California Department of Food and Agriculture's California Noxious and Invasive Weed Action Plan seeks to prevent and control noxious and invasive weeds. • Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (*see Hazards and Hazardous Materials section*) • **McAteer-Petris Act** (see *Multiple Environmental Issues*) • **Suisun Marsh Preservation Act** (see *Land Use and Planning section*) • **Wetlands Conservation Policy** – no net loss of wetland acreage; long-term gain in the quantity, quality, and permanence of California's wetlands.

CULTURAL AND PALEONTOLOGICAL RESOURCES

Cultural and Paleontological Resources (Federal)

Archaeological and Historic Preservation Act (AHPA)

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 U.S. 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 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...."

Archaeological Resources Protection Act of 1979 (ARPA) (P.L. 96-95; 93 Stat. 712)

The ARPA states that archaeological resources on public or Indian lands are an accessible and irreplaceable part of the nation's heritage and:

- Establishes protection for archaeological resources to prevent loss and destruction due to uncontrolled excavations and pillaging;
- 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;
- Establishes permit procedures to permit excavation or removal of archaeological resources (and associated activities) located on public or Indian land; and
- 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.

An anti-trafficking provision prohibits interstate or international sale, purchase, or transport of any archaeological resource excavated or removed in violation of a state or local law, ordinance, or regulation. ARPA's enforcement provision provides for criminal and civil penalties against violators of the Act. The ARPA's permitting component allows for recovery of certain artifacts consistent with NPS Federal Archeology Program standards and requirements.

National Historic Preservation Act of 1966 (NHPA) (16 U.S.C. § 470 et seq.) and implementing regulations (Protection of Historic Properties; 36 CFR 800) (applies only to federal undertakings)

Archaeological resources are protected through the NHPA and its implementing regulation (Protection of Historic Properties; 36 CFR 800), the AHPA, and the ARPA. 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 (SHPO) is an appointed official who implements historic preservation programs within the State's jurisdictions, including commenting on Federal undertakings. Under the NHPA, historic properties include "any prehistoric or historic district, site, building, structure,

Cultural and Paleontological Resources (Federal)

or object included in, or eligible for inclusion in, the National Register of Historic Places" (16 U.S.C. § 470w [5]).

Omnibus Public Land Management Act of 2009 - Public Law 111-11 (123 Stat. 991)

Public Law 111-011 at Title VI, subtitle D lays out statutory requirements for Paleontological Resources Preservation (PRP). PRP provides definitions but requires the definition of some terms, and uses other terms and concepts that need further definition or details to clarify intent or enforcement. PRP identifies management requirements, collection requirements, curation requirements, need for both criminal and civil penalties, rewards and forfeiture, and the need for confidentiality of some significant resource locations.

Paleontological Resources Preservation Act (16 U.S.C. § 470)

Enacted to preserve paleontological resources for current and future generations on federal lands under the jurisdiction of the National Park Service, Bureau of Land Management, Bureau of Reclamation, and USFWS, this Act identifies management requirements, collection requirements, curation requirements, authorizes criminal and civil penalties, rewards and forfeiture.

Cultural and Paleontological Resources (State)

California Register of Historical Resources (CRHR)

The CRHR 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" (Pub. Resources Code, § 5024.1, subd. (a)). CRHR eligibility criteria are modeled after National Register of Historic Places (NRHP) criteria but focus on resources of statewide significance. Certain resources are determined by the statute to be automatically included in the CRHR, including California properties formally determined to be eligible for, or listed in, the NRHP. To be eligible for the CRHR, a prehistoric or historical period property must be significant at the local, state, or federal level under one or more of the following criteria (State CEQA Guidelines, § 15064.5, subd. (a)(3)):

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
- Is associated with the lives of persons important in California's past
- 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
- Has yielded, or may be likely to yield, information important in prehistory or history

A resource eligible for the CRHR must meet one of the criteria of significance above, and retain enough of its historic character or appearance (integrity) to be recognizable as an historical resource and to convey the reason for its significance. An historic resource that may not retain sufficient integrity to meet the criteria for listing in the NRHP, may still be eligible for listing in the CRHR. 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)).

CEQA (Pub. Resources Code, § 21000 et seq.)

CEQA section 21084.1 provides that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. An "historical resource" includes: (1) a resource listed in, or eligible for listing in, the California Register of Historic Resources; (2) a resource included in a local register of historical or identified as significant in an historical resource surveys; and (3) any resource that

Cultural and Paleontological Resources (State)
a lead agency determines to be historically significant for the purposes of CEQA, when supported by substantial evidence in light of the whole record. Historical resources may include archaeological resources. Mitigation measures for significant impacts to historical resources must be identified and implemented if feasible.
Other • **Public Resources Code 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** provides 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

CULTURAL RESOURCES – TRIBAL

Tribal Cultural Resources (Federal)
Native American Graves Protection and Repatriation Act of 1990 (P.L. 101-601; 104 Stat. 3049) Assigns ownership or control of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony that are excavated or discovered on federal lands or tribal lands after passage of the act to lineal descendants or affiliated Indian tribes or Native Hawaiian organizations; establishes criminal penalties for trafficking in human remains or cultural objects; requires federal agencies and museums that receive federal funding to inventory Native American human remains and associated funerary objects in their possession or control and identify their cultural and geographical affiliations within 5 years, and prepare summaries of information about Native American unassociated funerary objects, sacred objects, or objects of cultural patrimony. This is to provide for repatriation of such items when lineal descendants, Indian tribes, or Native Hawaiian organizations request it.
Executive Order (EO) 13007, Indian Sacred Sites EO 13007 requires federal agencies with administrative or legal responsibility to manage federal lands to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sites (to the extent practicable permitted by law and not clearly inconsistent with essential agency functions)

Tribal Cultural Resources (State)
CEQA (Pub. Resources Code, § 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3) [AB 52 (Gatto, Stats. 2014, Ch. 532)] The AB 52 (effective July 1, 2015) amendments to CEQA relate to consultation with California Native American tribes, consideration of tribal cultural resources, and confidentiality. The definition of tribal cultural resources considers tribal cultural values in addition to scientific and archaeological values when determining impacts and mitigation. AB 52 provides procedural and substantive requirements for lead agency consultation with California Native American tribes and consideration of effects on tribal cultural resources, as well as examples of mitigation measures to avoid or minimize impacts to tribal cultural resources. AB 52 establishes that if a project may cause a substantial adverse change in the significance of a tribal cultural resource, that project may have a significant effect on the environment. Lead agencies must avoid damaging effects to tribal cultural resources, when feasible, and shall keep information submitted by tribes confidential.

Tribal Cultural Resources (State)
Health and Safety Code section 7050.5
This section provides for treatment of human remains exposed during construction; no further disturbance may occur until the County Coroner makes findings as to origin and disposition pursuant to Public Resources Code section 5097.98. 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 contacts most likely descendants about how to proceed.
Public Resources Code section 5097.98
This section provides (1) a protocol for notifying the most likely descendent from the deceased if human remains are determined to be Native American in origin and (2) mandated measures for appropriate treatment and disposition of exhumed remains.
Executive Order B-10-11
EO B-10-11 establishes as state policy that all agencies and departments shall encourage communication and consultation with California Indian Tribes and allow tribal governments to provide meaningful input into proposed decisions and policies that may affect tribal communities.

GEOLOGY AND SOILS

Geology and Soils (Federal/International)
Building Codes
The **Uniform Building Code** designates and ranks regions of the U.S., 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. The **International Building Code** sets design standards to accommodate a maximum considered earthquake (MCE), based on a project's regional location, site characteristics, and other factors.

Geology and Soils (State)
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 and prohibits locating structures for human occupancy on active and potentially active surface faults. (Note that since only those potentially active faults that have a relatively high potential for ground rupture are identified as fault zones, not all potentially active faults are zoned under the Alquist-Priolo Earthquake Fault Zone, as designated by the State of California.)
California Building Code (Cal. Code Regs., tit. 23)
The California Building Code provides a minimum standard for building design, which is based on the UBC, but is modified for conditions unique to California. The Code, which is selectively adopted by local jurisdictions, based on local conditions, contains requirements pertaining to multiple activities, including: excavation, site demolition, foundations and retaining walls, grading activities including drainage and erosion control, and construction of pipelines alongside existing structures. For example, sections 3301.2 and 3301.3 contain provisions requiring protection of adjacent properties during excavations and require a 10-day written notice and access agreements with adjacent property owners.

Geology and Soils (State)

Seismic Hazards Mapping Act & Mapping Regs (Pub. Resources Code, § 2690; Cal. Code Regs., tit. 14, div. 2, ch. 8, art. 10).

These regulations were promulgated to promote public safety by protecting against the effects of strong ground shaking, liquefaction, landslides, other ground failures, or other hazards caused by earthquakes. The Act requires that site-specific geotechnical investigations be conducted identifying the hazard and formulating mitigation measures prior to permitting most developments designed for human occupancy. California Division of Mines and Geology Special Publication 117, *Guidelines for Evaluating and Mitigating Seismic Hazards in California* (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). The Act does not apply offshore as the California Geological Survey has not zoned offshore California under the Act.

GREENHOUSE GAS EMISSIONS

Greenhouse Gas Emissions (Federal & International)

Federal Clean Air Act (FCAA) (42 U.S.C. § 7401 et seq.)

In 2007, the U.S. Supreme Court ruled that carbon dioxide (CO_2) is an air pollutant as defined under the FCAA, and that the USEPA has authority to regulate GHG emissions.

Mandatory Greenhouse Gas Reporting (74 Fed. Reg. 56260)

On September 22, 2009, the USEPA issued the Mandatory Reporting of Greenhouse Gases Rule, which requires reporting of GHG data and other relevant information from large sources (industrial facilities and power plants that emit more than 25,000 metric tons of carbon dioxide–equivalent ($MTCO_2e$) emissions per year) in the U.S. The purpose of the Rule is to collect accurate and timely GHG data to inform future policy decisions. The Rule is referred to as 40 CFR Part 98 (Part 98). Gases covered by implementation of Part 98 (GHG Reporting Program) are: CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and other fluorinated gases including nitrogen trifluoride and hydrofluorinated ethers.

Kyoto Protocol and Paris Climate Agreement

On March 21, 1994, the Kyoto Protocol, the first international agreement to regulate GHG emissions, was signed. The Kyoto Protocol was a treaty made under the United Nations Framework Convention on Climate Change. If the commitments outlined in the Kyoto Protocol are met, global GHG emissions would be reduced by 5 percent from 1990 levels during the commitment period of 2008 to 2012. The U.S. was a signatory to the Kyoto Protocol; however, Congress has not ratified it and the U.S. is not bound by the Protocol's commitments.

In December 2015, the Paris Climate Agreement was endorsed and adopted by 195 countries including the U.S. (which has since withdrawn from the Agreement). The overarching goal was to reduce pollution levels so that the rise in global temperatures is limited to no more than 2° Celsius (3.6° Fahrenheit). The Agreement included voluntary commitments to cut or limit the growth of their GHG emissions and provide regular and transparent reporting of every country's carbon reductions.

Greenhouse Gas Emissions (State)

California Global Warming Solutions Act of 2006 (AB 32, Stats. 2006, ch. 488)

Under AB 32, CARB is responsible for monitoring and reducing GHG emissions in the State and for establishing a statewide GHG emissions cap for 2020 based on 1990 emissions levels. CARB has adopted the AB 32 Climate Change Scoping Plan (Scoping Plan), initially approved in 2008 and updated in 2014, which contains the main strategies for California to implement to reduce CO_2e emissions by 169 million metric tons (MMT) from the State's projected 2020

Greenhouse Gas Emissions (State)
emissions level of 596 MMT CO_2e under a business-as-usual scenario. The Scoping Plan breaks down the amount of GHG emissions reductions CARB recommends for each emissions sector of the State's GHG inventory, but does not directly discuss GHG emissions generated by construction activities.
California Global Warming Solutions Act of 2006: emissions limit (SB 32, Stats. 2016, ch. 249) The update made by SB 32 requires a reduction in statewide GHG emissions to 40 percent below 1990 levels by 2030 to meet the target set in EO B-30-15. The 2017 Climate Change Scoping Plan provides a path to meet the SB 32 GHG emissions reduction goals and provides several GHG emissions reduction strategies to meet the 2030 interim GHG emissions reduction target including implementation of the Sustainable Freight Action Plan, Diesel Risk Reduction Plan, Renewable Portfolio Standard (50 percent by 2030), Advanced Clean Cars policy, and Low Carbon Fuel Standard
Clean Energy and Pollution Reduction Act (SB 350; Stats. 2015, ch. 547) This Act requires that the amount of electricity generated and sold to retail customers from renewable energy resources be increased to 50 percent by December 31, 2030, and that statewide energy efficiency savings in electricity and natural gas by retail customers be doubled by January 1, 2030.
SB 97 (Stats. 2007, ch. 185) Pursuant to SB 97, the State Office of Planning and Research prepared and the Natural Resources Agency adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. Effective as of March 2010, the revisions to the CEQA Environmental Checklist Form (Appendix G) and the Energy Conservation Appendix (Appendix F) provide a framework to address global climate change impacts in the CEQA process; State CEQA Guidelines section 15064.4 was also added to provide an approach to assessing impacts from GHGs. As discussed in State CEQA Guidelines section 15064.4, the determination of the significance of GHG emissions calls for a careful judgment by the lead agency, consistent with the provisions in section 15064. Section 15064.4 further provides that a lead agency should make a good-faith effort, to the extent possible, on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to: • Use a model or methodology to quantify GHG emissions resulting from a project, and determine which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or • Rely on a qualitative analysis or performance based standards. • Section 15064.4 also advises a lead agency to consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment: the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting; whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions
Other Legislation

Greenhouse Gas Emissions (State)

- **AB 1493** (Stats. 2002, ch. 200) required CARB to develop and implement regulations (stricter emissions standards) to reduce automobile and light truck GHG emissions beginning with model year 2009
- **AB 2800** (Stats. 2016, ch. 580) requires, in part, that state agencies, until 2020, take into account current and future climate change impacts when planning, designing, building, operating, maintaining, and investing in infrastructure
- **SB 375** (Stats. 2008, ch. 728; effective 2009) required CARB to develop regional GHG emission reduction targets in regions covered by California's 18 metropolitan planning organizations (MPOs) and required the 18 MPOs to develop regional land use and transportation plans and demonstrate an ability to attain the proposed reduction targets by 2020 and 2035
- **SB 1383** (Stats. 2016, ch. 395) requires CARB to approve and begin implementing its Short-Lived Climate Pollutant Reduction Strategy by January 1, 2018, to achieve a 40 percent reduction in methane, 40 percent reduction in hydrofluorocarbon gases, and 50 percent reduction in anthropogenic black carbon by 2030, relative to 2013 levels
- **SB 1425** (Stats. 2016, ch. 596) requires the California Environmental Protection Agency to oversee the development of a registry of GHG emissions resulting from the use of water, such as pumping, treatment, heating, and conveyance (the water-energy nexus), using the best available data

Executive Orders (EOs)

- **EO B-30-15** (Governor Brown, 2015) established a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 to ensure California meets its target to reduce GHG emissions to 80 percent below 1990 levels by 2050. State agencies with jurisdiction over sources of GHG emissions to implement measures were also directed pursuant to statutory authority, to achieve GHG emissions reductions to meet the 2030 and 2050 targets.
- **EO S-21-09** (Governor Schwarzenegger, 2009) directed CARB to adopt a regulation consistent with the goal of EO S-14-08
- **EO S-14-08** (Governor Schwarzenegger, 2008) required all retail suppliers of electricity in California to serve 33 percent of their load with renewable energy by 2020.
- **EO S-13-08** (Governor Schwarzenegger, 2008) directed state agencies to take specified actions to assess and plan for impacts of global climate change, particularly sea-level rise
- **EO S-01-07** (Governor Schwarzenegger, 2007) set a low carbon fuel standard for California, and directed the carbon intensity of California's transportations fuels to be reduced by at least 10 percent by 2020
- **EO S-3-05** (Governor Schwarzenegger, 2005) directed reductions in GHG emissions to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050

HAZARDS AND HAZARDOUS MATERIALS

Hazards and Hazardous Materials (Federal)

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 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 federal criteria are legally applicable in California for inland surface waters, enclosed bays, and estuaries.

Hazards and Hazardous Materials (Federal)
Hazardous Liquid Pipeline Safety Act of 1979 This Act includes requirements for hazardous liquid pipelines (under U.S. Department of Transporation jurisdiction), including accident reporting, design, and construction requirements, and minimum requirements for hydrostatic testing, compliance dates, test pressures, and duration; and records.
National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR 300) Authorized under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA: 42 U.S.C. § 9605), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA: Pub. L. 99-499); and by Clean Water Act section 311(d), as amended by the Oil Pollution Act (Pub. L. 101-380), the NCP outlines requirements for responding to oil spills and hazardous substance releases. It specifies compliance, but does not require preparation of a written plan, and provides a comprehensive system for reporting, spill containment, and cleanup. Per 40 CFR 300.175 and 40 CFR 300.120, the U.S. Coast Guard has responsibility for oversight of regional response for oil spills in "coastal zones."
Occupational Safety and Health Act of 1970 Congress created the Occupational Safety and Health Administration (OSHA) to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance. OSHA has entered into an agreement with California under which California regulations covers all private sector places of employment within the state with certain exceptions; however, the safe decommissioning of nuclear power plants is covered. OSHA has authority to regulate employee exposures from all radiation sources not regulated by the NRC.
Resource Conservation and Recovery Act (RCRA) (42 U.S.C. § 6901 et seq.) The RCRA authorizes the USEPA to control hazardous waste from "cradle-to-grave" (generation, transportation, treatment, storage, and disposal). RCRA Hazardous and Solid Waste Amendments from 1984 include waste minimization, phasing out land disposal of hazardous waste, and corrective action for releases. The Department of Toxic Substances Control is the lead state agency for corrective action associated with RCRA facility investigations and remediation.
Toxic Substances Control Act (TSCA) (15 U.S.C. § 2601–2692) The TSCA authorizes the USEPA to require reporting, record-keeping, testing requirements, and restrictions related to chemical substances and/or mixtures. It also addresses production, importation, use, and disposal of specific chemicals, such as polychlorinated biphenyls (PCBs), asbestos-containing materials, lead-based paint, and petroleum.
Other Relevant Laws, Regulations, and Recognized National Codes and Standards • **33 CFR, Navigation and Navigable Waters** regulates aids to navigation, vessel operations, anchorages, bridges, security of vessels, waterfront facilities, marine pollution financial responsibility and compensation, prevention and control of releases of materials (including oil spills) from vessels, ports and waterways safety, boating safety, and deep-water ports • **46 CFR parts 1 through 599 and Inspection and Regulation of Vessels (46 U.S.C. Subtitle II Part B)** provide that all commercial (e.g., passengers for hire, transport of cargoes, hazardous materials, and bulk solids) vessels operating offshore on specified routes (inland, near coastal, and oceans), including those under foreign registration, are subject to requirements applicable to vessel construction, condition, and operation. These regulations also allow for inspections to verify that vessels comply with applicable international conventions and U.S. laws and regulations. • **Clean Water Act** (see *Hydrology and Water Quality section*) • Hazardous Materials Transportation Act (*see Transportation/Traffic section*)

Hazards and Hazardous Materials (Federal)

- **Safety and Corrosion Prevention Requirements** — ASME, National Association of Corrosion Engineers (NACE), ANSI

Hazards and Hazardous Materials (State)

California Occupational Safety and Health Act of 1973 and California Code of Regulations, title 8

California employers have many different responsibilities under the Cal/OSHA Regulations. The following represents several requirements**:**

- Establish, implement and maintain an Injury and Illness Prevention Program and update it periodically to keep employees safe.
- Inspect workplace(s) to identify and correct unsafe and hazardous conditions.
- Make sure employees have and use safe tools and equipment and properly maintain this equipment.
- Provide and pay for personal protective equipment.
- Use color codes, posters, labels or signs to warn employees of potential hazards.

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.)

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 (OSPR) within the 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 California State Lands Commission is also provided with authority for oil spill prevention from and inspection of marine facilities and assists OSPR with spill investigations and response. Notification is required to the 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. Pipeline operators pay fees into the first of these funds for pipelines transporting oil into California across, under, or through marine waters.

Elder California Pipeline Safety Act of 1981 (Gov. Code, §§ 51010-51018; & Cal. Code Regs., tit. 19, Public Safety)

The California Pipeline Safety Act gives regulatory jurisdiction to the California State Fire Marshal (CSFM) for the safety of all intrastate hazardous liquid pipelines and all interstate pipelines used for the transportation of hazardous or highly volatile liquid substances. The law establishes the governing rules for interstate pipelines to be the Federal Hazardous Liquid Pipeline Safety Act and federal pipeline safety regulations. Government Code sections 51010 through 51018 provide specific safety requirements that are more stringent than the federal rules, including periodic hydrostatic testing of pipelines, pipeline leak detection, and a requirement that all leaks be reported. Amendments to the Act require that pipelines include leak prevention and cathodic protection, with acceptability to be determined by the CSFM. All new pipelines must be designed to accommodate the passage of instrumented inspection devices (i.e., smart pigs). Under California Code of Regulations, title 19, Public Safety, the CSFM develops regulations relating to fire and life safety. These regulations have been prepared and adopted to establish minimum standards for the prevention of fire and for protection of life and property against fire, explosion, and panic. The CSFM also adopts and

Hazards and Hazardous Materials (State)

administers the regulations and standards considered necessary under the California Health and Safety Code to protect life and property.

Other

- **Hazardous Waste Control Act (Health & Saf. Code, ch. 6.5 & Cal. Code Regs., tit. 22 and 26)** establishes criteria for defining hazardous waste and its safe handling, storage, treatment, and disposal (law is designed to provide cradle-to-grave management of hazardous wastes and reduce the occurrence and severity of hazardous materials releases)
- **Hazardous Material Release Response Plans and Inventory Law** (Health & 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.
- **California Code of Regulations, title 8, division 1** sets forth the Permissible Exposure Limit, the exposure, inhalation or dermal permissible exposure limit for numerous chemicals. Included are chemicals, mixture of chemicals, or pathogens for which there is statistically significant evidence, based on at least one study conducted in accordance with established scientific principles, that acute or chronic health effects may occur in exposed employees. Title 8 sections 5191 and 5194 require a Hazard Communication Plan to ensure both employers and employees understand how to identify potentially hazardous substances in the workplace, understand the associated health hazards, and follow safe work practices.
- **California Code of Regulations, title 19, division 2** establishes minimum statewide standards for Hazardous Materials Business Plans.
- **California Code of Regulations, title 22, division 4.5** regulates hazardous wastes and materials by implementation of a Unified Program to ensure consistency throughout the state in administration requirements, permits, inspections, and enforcement by Certified Unified Program Agencies (CUPAs)
- **California Code of Regulations, title 24, part 9 (Fire Code regulations)** – state hazardous materials should be used and storage in compliance with the state fire codes
- **Oil Pipeline Environmental Responsibility Act** (**AB 1868**; Stats. 1995, ch. 979) requires every pipeline corporation qualifying as a public utility and transporting crude oil in a public utility oil pipeline system to be held strictly liable for any damages incurred by "any injured party which arise out of, or caused by, the discharge or leaking of crude oil or any fraction thereof...." The law applies only to public utility pipelines for which construction would be completed after January 1, 1996, or that part of an existing utility pipeline that is being relocated after the above date and is more than 3 miles in length.
- **Porter-Cologne Water Quality Control Act** (*see Hydrology and Water Quality section)*
- Seismic Hazards Mapping Act/Regulations (*see Geology and Soils section)*

California Executive Order (EO) D-62-02

EO D-62-02 (Governor Davis, September 2002) requires that the Water Boards shall, as soon as possible, take all steps necessary to impose a moratorium on the disposal of decommissioned materials into Class III landfills and unclassified waste management units, as described in title 27, sections 20260 and 20230, of the California Code of Regulations. Decommissioned materials are defined as materials with low residual levels of radioactivity that, upon decommissioning of a licensed site, may presently be released with no restrictions upon their use.

HYDROLOGY AND WATER QUALITY

Hydrology and Water Quality (Federal)

Federal Clean Water Act (CWA) (33 U.S.C. § 1251 et seq.)

The CWA is comprehensive legislation (it generally includes the Federal Water Pollution Control Act of 1972, its supplementation by the CWA of 1977, and amendments in 1981, 1987, and 1993) that 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 U.S. 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). CWA sections include:

- **Section 303(d) (33 U.S.C. § 1313)** requires states to list waters that are not attaining water quality standards, which is known as the 303(d) List of impaired waters. These requirements have lead to the development of total maximum daily load (TMDL) guidance at the state level through the SWRCB and various RWQCBs.
- **Section 305(b) (33 U.S.C. § 1315)** requires states to assess and report on the water quality status of waters within the states.
- **Section 401 (33 U.S.C. § 1341)** specifies that any applicant for a federal permit or license to conduct any activity which may result in any discharge into the navigable waters of the U.S. to obtain a certification or waiver thereof from the state in which the discharge originates that such a discharge will comply with established state effluent limitations and water quality standards. U.S. Army Corps of Engineers projects are required to obtain this certification.
- **Section 402 (33 U.S.C. § 1342)** establishes conditions and permitting for discharges of pollutants under the National Pollutant Discharge Elimination System) (NPDES). Under the NPDES Program, states establish standards specific to water bodies and designate the types of pollutants to be regulated, including total suspended solids and oil; 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 state waters (out to 3 nautical miles).
- **Section 404 (33 U.S.C. § 1344)** authorizes the U.S. Army Corps of Engineers to issue permits for the discharge of dredged or fill material into waters of the U.S., including wetlands, streams, rivers, lakes, coastal waters or other water bodies or aquatic areas that qualify as waters of the U.S.

Rivers and Harbors Act (33 U.S.C. § 401)

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 for use to transport interstate or foreign commerce). Section 10 provides that construction of any structure in or over any navigable water of the U.S., or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters, is unlawful unless the U.S. Army Corps of Engineers approves the work and issues a Rivers and Harbors Act section 10 Permit (which may occur concurrently with Clean Water Act section 404 permits).

Other

- **Oil Pollution Act (OPA)** (see *Hazards and Hazardous Materials* section)

Hydrology and Water Quality (State)

Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) (Porter-Cologne)

Porter-Cologne is the principal law governing water quality in California. The Act established the SWRCB and nine RWQCBs, which have primary responsibility for protecting water quality and beneficial uses of state waters. Porter-Cologne also implements many provisions of the federal Clean Water Act, such as the NPDES permitting program. Pursuant to Clean Water Act section 401, applicants for a federal license or permit for activities that may result in any discharge to waters of the U.S. must seek a Water Quality Certification from the state in which

Hydrology and Water Quality (State)

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. Plans that contain enforceable standards for the various waters they address include the following:

- Basin Plan. Porter-Cologne (see § 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 an implementation program for achieving water quality objectives within the basin plan. In California, the beneficial uses and water quality objectives are the state's water quality standards.
- California Ocean Plan (see § 13170.2) establishes water quality objectives for California's ocean waters and provides the basis for regulating wastes discharged into ocean and 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. The SWRCB first adopted this plan in 1972, and it reviews the plan at least every 3 years to ensure that current standards are adequate and are not allowing degradation to indigenous marine species or posing a threat to human health.
- Other: Water Quality Control Plan for Enclosed Bays and Estuaries of California; Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan); and San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan.

RWQCBs also oversee on-site treatment of "California Designated, Non-Hazardous Waste" and enforces water quality thresholds and standards set forth in the Basin Plan. Applicants may be required to obtain a General Construction Activities Storm Water Permit under the NPDES program, and develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that includes best management practices to control erosion, siltation, turbidity, and other contaminants associated with construction activities. The SWPPP would include best management practices to control or prevent the release of non-storm water discharges, such as crude oil, in storm water runoff.

Bay Protection and Toxic Cleanup Program Legislation

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 identified in toxic hot spots or as pollutants of concern. In 2009, the SWRCB adopted SQOs and an implementation policy for bays and estuaries in California (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.

Other sections

- Lake and Streambed Alteration Program (Fish & G. Code, §§ 1600-1616) (see *Biological Resources* section)

LAND USE AND PLANNING

Land Use and Planning (Federal)

Coastal Zone Management Act (see *Multiple Environmental Issues*)

Land Use and Planning (State)

Submerged Lands Act

The State of California owns tide and submerged lands waterward of the ordinary high watermark. State law gives primary responsibility for determination of the precise boundary between these public tidelands and private lands, and administrative responsibility over state tidelands, to the CSLC. Access and use of state shoreline areas can be obtained through purchase or lease agreements.

Nejedly-Bagley-Z'berg Suisun Marsh Preservation Act (Pub. Resources Code, §§ 29000-29612)

In 1974, the State Legislature enacted the Suisun Marsh Preservation Act to protect Suisun Marsh from urban development. The Suisun Marsh comprises approximately 85,000 acres of tidal marsh, managed wetlands, and waterways in southern Solano County. It is the largest remaining wetland near San Francisco Bay and includes more than 10 percent of California's remaining wetland area. The Marsh is also a wildlife habitat of nationwide importance. In 1976, BCDC developed the Suisun Marsh Protection Plan, which was designed to be a more specific application of the general, regional policies of the San Francisco Bay Plan and to supplement such policies where appropriate because of the unique characteristics of the Suisun Marsh. The Suisun Marsh Protection Plan states that its focus is on maintaining waterfowl habitat, but it also addresses the importance of tidal wetlands. The plan calls for the preservation of Suisun Marsh; preservation of waterfowl habitat; improvement to water distribution and levee systems; and encourages agriculture that is consistent with wildlife and waterfowl, such as grazing. The Legislature subsequently enacted the Suisun Marsh Preservation Act of 1977, which incorporates the findings and policies contained in the plan into state law, calls for the implementation of the Suisun Marsh Protection Plan and designates BCDC as the state agency with jurisdiction over Suisun Marsh. It also gives the Suisun Resource Conservation District local responsibility for water management on privately owned lands in the Marsh. A key issue of the Suisun Marsh Preservation Act and Suisun Marsh Protection Plan was the classification of two management areas within the Marsh. The Primary Management Area is made up of tidal marshes, seasonal marshes, managed wetlands and lowland grasslands and the Secondary Management Area is made up of upland grasslands and cultivated lands which serve as a buffer between the Primary Management Area and adjacent developed lands within the Secondary Management Area. Policies of the Suisun Marsh Protection Plan include:

- The diversity of habitats in the Suisun Marsh and surrounding upland areas should be preserved and enhanced wherever possible to maintain the unique wildlife resource.
- The Marsh waterways, managed wetlands, tidal marshes, seasonal marshes, and lowland grasslands are critical habitats for marsh-related wildlife and are essential to the integrity of the Suisun Marsh. Therefore, these habitats deserve special protection.
- Existing uses should continue in the upland grasslands and cultivated areas surrounding the critical habitats of the Suisun Marsh to protect the Marsh and preserve valuable marsh-related wildlife habitats. Where feasible, the value of the upland grasslands and cultivated lands as habitat for marsh-related wildlife should be enhanced.
- The eucalyptus groves in and around the Marsh, particularly those on Joice and Grizzly Islands, should not be disturbed.

Other

- **McAteer-Petris Act** (see *Multiple Environmental Issues*)

MINERAL RESOURCES

There are no major federal or state laws, regulations, and policies potentially applicable to this project

NOISE

Noise (Federal)
Noise Control Act (42 U.S.C. § 4910) and NTIS 550\9-74-004, 1974 The Noise Control Act required the USEPA to establish noise emission criteria and 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. In 1974, the USEPA provided guidance in NTIS 550\9-74-004 ("Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety;" referenced as the "Levels Document") that established an L_{dn} of 55 dBA as the requisite level, with an adequate margin of safety, for areas of outdoor uses including residences and recreation areas. The recommendations 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 therefore should not be construed as standards or regulations.
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 Ldn 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 therefore should not be construed as standards or regulations.

Noise (State)
Land Use Compatibility Guidelines from the now defunct California Office of Noise Control State regulations for limiting population exposure to physically and/or psychologically significant noise levels include established guidelines and ordinances for roadway and aviation noise under the California Department of Transportation and the now defunct California Office of Noise Control. Office of Noise Control land use compatibility guidelines provided the following: • For residences, an exterior noise level of 60 to 65 dBA Community Noise Equivalent Level (CNEL) is considered "normally acceptable;" a noise level of greater than 75 dBA CNEL is considered "clearly unacceptable." • A noise level of 70 dBA CNEL is considered "conditionally acceptable" (i.e., the upper limit of "normally acceptable" for sensitive uses [schools, libraries, hospitals, nursing homes, churches, parks, offices, commercial/professional businesses]).
Other • **California Code of Regulations, title 24** establishes CNEL 45 dBA as the maximum allowable indoor noise level resulting from exterior noise sources for multi-family residences • **California Code of Regulations, title 21** applies to airports operating under permit from the California Department of Transportation Division of Aeronautics, defines a noise-impacted zone as any residential or other noise-sensitive use with CNEL 65 and above

POPULATION AND HOUSING

There are no major federal or state laws, regulations, and policies potentially applicable to this project

PUBLIC SERVICES

Public Services (Federal)

CFR Title 29

- **29 CFR 1910.38** requires an employer, when required by an Occupational Safety and Health Administration (OSHA) standard, to have an Emergency Action Plan that must be in writing, kept in the workplace, and available to employees for review
- **29 CFR 1910.39** requires an employer to have a Fire Prevention Plan (FPP)
- **29 CFR 1910.155, Subpart L, Fire Protection** requires employers to place and keep in proper working order fire safety equipment within facilities

Public Services (State)

California Code of Regulations, title 19 (Public Safety)

California State Fire Marshal regulations establish minimum standards for the prevention of fire and for protection of life and property against fire, explosion, and panic.

RECREATION

There are no major federal laws, regulations, and policies potentially applicable to this project

Recreation (State)

Other

- **McAteer-Petris Act** (see *Multiple Environmental Issues*)

TRANSPORTATION / TRAFFIC

Transportation / Traffic (Federal)

Hazardous Materials Transportation Act (HMTA) (49 U.S.C. § 5901)

The HMTA delegates authority to the U.S. Department of Transportation to develop and implement regulations pertaining to the transport of hazardous materials and hazardous wastes by all modes of transportation. The USEPA's Hazardous Waste Manifest System is a set of forms, reports, and procedures for tracking hazardous waste from a generator's site to the disposal site. Applicable regulations are contained primarily in CFR Titles 40 and 49.

American with Disabilities Act (ADA)

The ADA (1990) is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability. Pedestrian facility design must comply with the accessibility standards identified in the ADA, which applies to all projects involving new or altered pedestrian facilities. The scoping and technical provisions for new construction and alterations identified in the ADA Accessibility Guidelines (Sections 4.3, 4.7 and 4.8) can be used to help design pedestrian facilities that are ADA compliant. For example, Title II-6.600 of the Technical Assistance Manual states, "When streets, roads, or highways are newly built or altered, they must have ramps or sloped areas whenever there are curbs or other barriers to entry from a sidewalk or path." Certain facilities, such as historic buildings, may be exempt from ADA requirements.

Transportation / Traffic (State)

California Vehicle Code

Chapter 2, article 3 defines the powers and duties of the California Highway Patrol, which enforces vehicle operation and highway use in the State. The California Department of Transportation 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.

Caltrans has the discretionary authority to issue special permits for the use of California State highways for other than normal transportation purposes. Caltrans also reviews all requests from utility companies, developers, volunteers, nonprofit organizations, and others desiring to conduct various activities within the California Highway right of way. The Caltrans Highway Design Manual, prepared by the Office of Geometric Design Standards (Caltrans 2012), establishes uniform policies and procedures to carry out the highway design functions of Caltrans. Caltrans has also prepared a Guide for the Preparation of Traffic Impact Studies (Caltrans 2002). Objectives for the preparation of this guide include providing consistency and uniformity in the identification of traffic impacts generated by local land use proposals.

UTILITIES AND SERVICE SYSTEMS

Utilities and Service Systems (Federal)

CFR Title 29 (see *Public Services*)

Utilities and Service Systems (State)

California Integrated Waste Management Act (AB 939; Stats. 1989, ch. 1095)

AB 939 mandates management of non-hazardous solid waste throughout California. Its purpose includes: reduce, recycle, and reuse solid waste generated in the state to the maximum extent feasible; improve regulation of existing solid waste landfills; ensure that new solid waste landfills are environmentally sound; streamline permitting procedures for solid waste management facilities; and specify local government responsibilities to develop and implement integrated waste management programs. AB 939 policies preferred waste management practices include the following. The highest priority is to reduce the amount of waste generated at its source (source reduction). Second is to reuse, by extending the life of existing products and recycling those wastes that can be reused as components or feed stock for the manufacture of new products, and by composting organic materials. Source reduction, reuse, recycling and composting are jointly referred to as waste diversion methods because they divert waste from disposal. Third is disposal by environmentally safe transformation in a landfill. All local jurisdictions, cities, and counties must divert 50 percent of the total waste stream from landfill disposal by the year 2000 and each year thereafter (with 1990 as the base year).

California Code of Regulations, title 19 (Public Safety)

Title 19, sets standards for the prevention of fire and protection of property and life by the Seismic Safety Commission, Office of Emergency Services, and Office of the Fire Marshall. It also contains guidelines and standards for general fire, construction, explosives, emergency management, earthquakes, and fire.