

Appendix C

Major Federal and State Laws, Regulations, and Policies Potentially Applicable to the Proposed Project

Laws, Regulations, and Policies (Page App. C-1)

Frequently Used Acronyms and Abbreviations (Page App. C-40)

References (Page App.C-43)

This section identifies major federal and state laws, regulations, and policies (local or regional are presented in each issue area chapter) potentially applicable to the Proposed Project. The list of acronyms and abbreviations is provided on page App. C-40.

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.

California Coastal National Monument Resource Management Plan

The California Coastal National Monument (CCNM) was established through Presidential Proclamation No. 7264 by President Clinton on January 11, 2000. The CCNM includes all public lands in the form of islands, rocks, exposed reefs, and pinnacles above mean high tide within 12 nautical miles of the California shoreline. These public lands are managed by the US Department of the Interior Bureau of Land Management (BLM) through the guidance, objectives, policies, and management actions established in the CCNM Resource Management Plan (RMP) (BLM, 2005).

The CCNM RMP describes the CCNM Planning Area as a larger geographic area that extends beyond the public lands that constitute the CCNM. However, the decisions in the CCNM RMP only apply to BLM-managed lands. Activities below mean high tide and in lands and waters surrounding the monuments are regulated by other agencies with appropriate jurisdiction, such as the California State Lands Commission and the California Coastal Commission.

Multiple Environmental Issues (State)

Senate Bill (SB) 846 Diablo Canyon Powerplant: Extension of Operations

Effective September 2, 2022, this bill invalidates the approval made by the California Public Utility Commission (CPUC) to retire DCPD Units 1 and 2 in 2025 and requires new retirement dates to be set, which are October 31, 2029, for Unit 1 and October 31, 2030, for Unit 2. The CPUC must act to allow PG&E to recover the cost of operation for each megawatt hour generated. To facilitate the extension of operations, the bill states the intent of the Legislature to loan \$1.4 billion to the California Department of Water Resources (DWR) and establishes the Diablo Canyon Extension Fund in the State Treasury with a continuous appropriation of funds to put together the loan. This loan agreement with DWR requires PG&E by March 1, 2023, to report to the California Energy Commission (CEC) the available capacity of existing wet and dry spent fuel storage facilities and the forecasted amount of spent fuel to be generated by DCPD operations through the retirement dates for both units as of August 1, 2022, and November 1, 2029, for Unit 1, and November 1, 2030, for Unit 2. SB 846 amended § 8610.5 of the Government Code, added §§ 25233, 25233.2, and 25302.7 to Division 15 of the Public Resources Code, amended §§ 454.52 and 454.53 of, and added §§ 712.1 and 712.8 to the Public Utilities Code, and added § 13193.5 to the Water Code (California Legislative Information, 2022).

Under the following circumstances the previous retirement dates will be reestablished and/or closure of the two units could occur prior to the legislatively-adopted deadlines (California Legislative Information, 2022):

- By March 1, 2023, if the U.S. Department of Energy does not deem PG&E eligible for a federal funding program, or the earliest date set by the Department of Energy for determining eligibility
- If the State's electricity forecasts for 2023-2024 do not require DCPD to continue operations
- If the Independent Safety Committee for Diablo Canyon's reports or recommendations cause the CEC to determine that the costs of addressing seismic safety or issues of deferred maintenance are too costly to justify incurring
- If the conditions of the license renewal from the US Nuclear Regulatory Commission (NRC) require expenditures that are too high

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.

California Coastal Act (Pub. Resources Code, § 30000 et seq.) and California Federal Consistency Program

Pursuant to the Coastal Act, the CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. The Coastal Act includes specific policies (see Chapter 3) that address issues such as shoreline public access and recreation, lower cost visitor accommodations, terrestrial and marine habitat protection, visual resources, landform alteration, agricultural lands, commercial fisheries, industrial uses, water quality, oil and gas development, transportation, development design, power plants, ports, and public works. Development activities in the coastal zone generally require a coastal permit from either the CCC or the local government: (1) the CCC retains jurisdiction over the immediate shoreline areas below the mean high tide line and offshore areas to the 3 nautical mile State water limit; and (2) following certification of county- and municipality-developed Local Coastal Programs, the CCC has delegated permit authority to many local governments for the portions of their jurisdictions within the coastal zone. The CCC also implements the Coastal Zone Management Act as it applies to federal activities (e.g., development projects, permits, and licenses) in the coastal zone by reviewing specified federal actions for consistency with the enforceable policies of Chapter 3 of the Coastal Act.

Aesthetics

Aesthetics (State)

California Scenic Highway Program (Sts. & Hy. Code, § 260 et seq.)

The purpose of California's Scenic Highway Program, which was created by the Legislature in 1963 and is managed by the California Department of Transportation (Caltrans), is to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. State highways identified as scenic, or eligible for designation, are listed in Streets and Highways Code section 260 et seq. A highway's status changes from eligible to officially designated when a local governmental agency has implemented a corridor protection program for an eligible highway that meets the standards of an official scenic highway (Caltrans, 2008).

The US-101 segment that extends south from the City of Paso Robles to its junction with Highway 1 (near Gaviota State Park) is designated as an eligible State Scenic Highway under the State Scenic Highway Program (Caltrans, 2019a). Portions of this eligible State Scenic Highway would be used to transport waste from DCPD to the proposed rail sites.

Coastal Act Chapter 3 policies (see *Multiple Environmental Issues*)

The Coastal Act is concerned with protecting the public viewshed, including views from public areas, such as roads, beaches, coastal trails, and access ways. Section 30251 states: Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of the surrounding area, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Section 30253 states: New development shall, where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

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 US Supreme Court ruled that carbon dioxide (CO₂) 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. In San Luis Obispo County, the San Luis Obispo Air Pollution Control District (APCD) has this responsibility, and in Santa Barbara County, the Santa Barbara APCD has this responsibility. In addition, these APCDs and the CARB are the responsible agencies for providing attainment plans and meeting attainment with the NAAQS; and the USEPA reviews and approves these plans and regulations, which are designed to attain and maintain attainment with the NAAQS.

Marine Diesel Engine Emission Standards

In March 2008, the USEPA adopted more stringent emission standards for locomotives and marine compression-ignition engines (73 Fed. Reg. 37096 (USEPA, 2008a)). To reduce emissions from Category 1 (at least 50 horsepower [hp] but less than 7 liters per cylinder displacement) and Category 2 (7 to 30 liters per cylinder displacement) marine diesel engines, the USEPA has established emission standards for new engines, referred to as Tier 2 marine engine standards. The Tier 2 standards were phased in from 2004 to 2007 (year of manufacture), depending on the engine size (USEPA, 1999). The 2008 final rule includes the first-ever national emission standards for existing marine diesel engines, applying to engines larger than 600 kilowatts (kW) when they are remanufactured. The rule also sets Tier 3 emissions standards for newly built engines that began implementation phase-in in 2009. Finally, the rule establishes Tier 4 standards

for newly built commercial marine diesel engines above 600 kW, based on the application of high-efficiency catalytic after-treatment technology that began implementation in 2014.

The new diesel marine engine standards will reduce emissions of diesel particulate matter by 90 percent and emissions of NO_x by 80 percent for engines meeting Tier 4 standards, in comparison with engines meeting the current Tier 2 standards. The USEPA's three-part program: (1) tightened standards for existing marine diesel engines when they are remanufactured, taking effect as certified remanufacture systems are available starting in 2008; (2) sets near-term emission standards, referred to as Tier 3 standards, for newly built locomotive and diesel marine engines, which reflect the application of currently available technologies to reduce engine-out PM and NO_x emissions and phase-in starting in 2009; and (3) applies the final long-term Tier 4 emissions standards to marine diesel engines. These standards are based on the application of high-efficiency catalytic after-treatment technology and would be phased in beginning in 2014 for marine diesel engines. These marine Tier 4 engine standards apply only to commercial marine diesel engines above 600 kW (800 hp) (USEPA, 2008b).

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 complement the latest 2007 and later on-road heavy-duty engine standards by requiring 90 percent reductions in diesel particulate matter and NO_x 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 NO_x and particulate matter (PM) standards in 2015.

Locomotive Emission Standards

In 1998, the USEPA adopted Tier 0 (1973-2001), Tier 1 (2002-2004), and Tier 2 (2005+) emission standards applicable to newly manufactured and remanufactured railroad locomotives and locomotive engines. These standards require compliance with progressively more stringent standards for emissions of VOC, CO, NO_x, and diesel particulate matter.

On March 14, 2008, the USEPA adopted Tiers 3 and 4 emissions standards for all diesel line-haul, passenger, and switch locomotives that operate extensively within the US, including newly manufactured locomotives and remanufactured locomotives that were originally manufactured after 1972 (USEPA, 2008b). These standards would substantially reduce emissions from these sources, compared to the Tier 2 standards.

The finalized rule set Tier 3 emission standards for new engines starting in 2008, and for existing locomotives and large marine diesel engines when they are remanufactured, starting in 2009. It set Tier 4 standards, for newly built locomotives that reflect the application of high efficiency after treatment technology, with phase-in starting in 2015. The USEPA also finalized new idle reduction requirements for newly built and remanufactured locomotives.

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, NO_x, 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., title 13, §§ 2281-2285; Cal. Code Regs., title 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, 2005). 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 South Coast Air Basin 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 may also serve to significantly reduce other pollutant emissions, are all part of this risk reduction plan.

Commercial Harbor Craft Regulation requires upgrades to Tier 2 or Tier 3 standards to reduce diesel particulate matter and NO_x emissions from diesel engines used on commercial harbor craft (e.g., tugboats, crew and supply vessels, work boats, barges, dredges) operated in California Regulated Waters (internal waters, estuarine waters, ports and coastal waters within 24 nautical miles of the coast).

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 NO_x, hydrocarbons, CO, and PM.

Heavy Duty Diesel Truck Idling Rule/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., title 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 NO_x 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, 2016)

Ocean-Going Vessels Fuel Standards. After January 1, 2014, ocean-going vessels within California Regulated Waters must use fuel with a maximum fuel sulfur content of 0.1 percent (using cleaner marine distillate fuels in larger ocean-going vessels reduces diesel particulate matter, NO_x, and SO_x emissions).

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. USEPA standards for marine compression-ignition engines address NO_x 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 NO_x 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, 2018). 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 consecutive months.

Statewide Bus and Truck Regulation. The Truck and Bus Regulation was adopted in 2008 and requires the installation of PM retrofits on all heavy-duty diesel trucks beginning in 2012 and replacement of older trucks starting in 2015. All vehicles must have 2010 model year engines or equivalent by 2023. This regulation applies primarily to on-road vehicles to be used during proposed facility closure activities such as hauling of debris and materials to and from the site (CARB, 2019).

Statewide Railyard Agreement. On June 30, 2005, CARB entered into a Statewide Railyard Agreement with Union Pacific Railroad and BNSF Railway Company. This agreement obligated the railroads to significantly reduce diesel emissions in and around rail yards in California. Among the most important elements of the agreement were provisions that significantly cleaned up the state's biggest rail yards: (1) a statewide idling-reduction program; (2) health risk assessments (HRAs) for all major rail yards; and (3) community and air district involvement in the preparation of risk assessments, enforcement of agreement provisions, and the evaluation and development of measures to further reduce impacts on local communities. The agreement also: (1) maximized the use of state and federal low sulfur diesel in locomotives fueled in California; (2) established a statewide visible emissions reduction and repair program; (3) provided a detailed evaluation of advanced control measures; and (4) included an assessment of remote sensing technology to identify high-emitting locomotives.

Health and Safety Code

§§ 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 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 an HRA.

Coastal Act Chapter 3 policies (see *Multiple Environmental Issues*)

Section 30253, subdivision (c) requires that new development shall be consistent with requirements imposed by an air pollution control district or CARB as to each development.

Biological Resources

Biological Resources (Federal)

Federal Clean Water Act (CWA) (33 U.S.C. § 1251 et seq.) (see *Hydrology and Water Quality*)**Rivers and Harbors Act (33 U.S.C. § 401) (see *Hydrology and Water Quality*)**

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 US 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)).

Marine Mammal Protection Act (MMPA) (16 U.S.C. § 1361 et seq.)

The MMPA is designed to protect and conserve marine mammals and their habitats. It prohibits takes of all marine mammals in the US (including territorial seas) with few exceptions. The NMFS may issue a take

permit under section 104 if 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.

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.

Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. § 668-668c)

Bald and golden eagles are protected under the BGEPA, originally passed in 1940 and amended in 1962. The BGEPA prohibits the take, possession, sale, purchase, barter, offer to sell, transport, export, or import of any bald or golden eagle, alive or dead, including any part, nest, egg, unless allowed by permit (16 U.S.C. 668[a]; 50 CFR 22).

Federal Noxious Weed Act (7 U.S.C. §§ 2801 et seq.)

The Federal Noxious Weed was enacted in 1975 and established a federal program to control the spread of noxious weeds. This act:

- Defines a noxious weed as any living stage of a plant that can directly or indirectly injure crops, other useful plants, livestock, poultry, or other interests of agriculture including irrigation, navigation, the fish and wildlife resources of the United States, or public health.
 - Regulates the sale, purchase, and transportation of noxious weeds into or through the United States.
 - Regulates the inspection and quarantine of areas suspected of infestation and provides for the disposal or destruction of infested products, articles, means of conveyance, or noxious weeds.
 - Provides fines of up to \$5,000 or imprisonment of up to one year for violation of the regulation.
 - Requires federal agencies to work with state and local agencies to develop and implement noxious weed management programs on federal lands.
-

National Invasive Species Act (NISA) (33 CFR, Part 151, Subpart D)

NISA was originally passed in 1990 as the Nonindigenous Aquatic Nuisance Prevention and Control Act [16 U.S.C. § 4701-4751] and reauthorized, renamed and expanded in 1996. Under its provisions, the US Coast Guard requires ballast water management (i.e., exchange) for vessels entering US waters from outside the 200-nautical-mile US Exclusive Economic Zone. The original Act was established to: (1) prevent unintentional introduction and dispersal of nonindigenous species into Waters of the US 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.

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 13158 requires federal agencies to (1) identify actions that affect natural or cultural resources that are within a Marine Protected Area (MPA); and (2) in taking such actions, to avoid harm to the natural and cultural resources that are protected by a MPA.

EO 13186 sets forth responsibilities of federal agencies to protect migratory birds.

Other

Clean Water Act and Rivers and Harbors Act (see *Hydrology and Water Quality*)

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

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)

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

California Endangered Species Act (CESA) (Fish & Game 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 & Game 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 & Game 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; determines if the activity may substantially adversely affect an existing fish and wildlife resource; and issue a Streambed Alteration Agreement if applicable.

Marine Life Protection Act (MLPA) (Fish & Game Code, §§ 2850–2863)

Pursuant to this Act, the CDFW established and manages a network of MPAs to, among other goals, protect marine life and habitats and preserve ecosystem integrity. For the purposes of MPA planning, California was divided into five distinct regions (four coastal and San Francisco Bay) each of which had its own MPA planning process. The coastal portion of California's MPA network is now in effect statewide; options for a planning process in San Francisco Bay have been developed for consideration at a future

date. The MLPA establishes clear policy guidance and a scientifically sound planning process for the siting and design of MPAs such as:

- State Marine Reserves (SMRs), which typically preclude all extractive activities (such as fishing or kelp harvesting)
 - State Marine Parks (SMPs), which do not allow any commercial extraction
 - State Marine Conservation Areas (SMCAs), which preclude some combination of commercial and/or recreational extraction
-

Other relevant California Fish and Game Code sections and Programs/Plans

§ 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.

§§ 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.

§§ 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 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.

§ 3513 prohibits the take or possession of "any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act."

California Aquatic Invasive Species Management Plan provides a framework for agency coordination and identifies actions to minimize harmful effects of aquatic invasive species.

Marine Invasive Species Act (MISA) (Pub. Resources Code, § 71200 et seq.) (AB 433; Stats. 2003, ch. 491)

Originally passed in 2003 and amended several times, the purpose of MISA is to move towards eliminating the discharge of nonindigenous species into waters of the state or waters that may impact waters of the state, based on the best available technology economically achievable. MISA requires mid-ocean exchange or retention of all ballast water and associated sediments for all vessels 300 gross registered tons or more, US and foreign, carrying ballast water into the waters of the state after operating outside state waters. For all vessels 300 gross register tons or more arriving at a California port or place carrying ballast water from another port or place within the Pacific Coast Region, the Act mandates near-coast exchange or retention of all ballast water. MISA also requires completion and submission of Ballast Water Reporting Form 24 hours in advance of each port of call in California, annual submittal of the Hull Husbandry Reporting Form, the keeping of a ballast management plan and logs, and the application of "Good Housekeeping" Practices designed to minimize the transfer and introduction of invasive species. Compliance with MISA is the responsibility of vessel owners/operators. The California State Lands Commission has regulatory authority to manage and enforce MISA.

Coastal Act Chapter 3 policies (see *Multiple Environmental Issues*)

§ 30230 – Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

§ 30231 – The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human

health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

§ 30232 – Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

§ 30233 – applies in part to development activities within or affecting wetlands and other sensitive areas, identifies eight allowable uses, requires projects be the least environmentally damaging feasible alternative, and where applicable, requires feasible and appropriate mitigation.

§ 30240 – (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

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 Hazardous and Radiological Materials*)

Wetlands Conservation Policy – no net loss of wetland acreage; long-term gain in the quantity, quality, and permanence of California’s wetlands.

Cultural Resources – Archaeology and Built Environment

Cultural 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 US 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 Archaeology Program standards and requirements.

National Historic Preservation Act of 1966 (NHPA) (16 U.S.C. § 470 et seq. [recodified at 54 U.S.C. § 300101]) 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, or object included on, or eligible for inclusion on, the National Register, including artifacts, records, and material remains relating to the district, site, building, structure, or object” (54 U.S.C. § 300308).

Executive Order (EO) 13158

EO 13158 requires federal agencies to (1) identify actions that affect natural or cultural resources that are within an MPA; and (2) in taking such actions, to avoid harm to the natural and cultural resources that are protected by a MPA.

Cultural 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 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.

Coastal Act Chapter 3 policies (see *Multiple Environmental Issues*)

Section 30244 states: Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Cultural Resources – Tribal Cultural Resources

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.

Health and Safety Code § 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 § 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.

Energy

Energy (State)

2019 Building Energy Efficiency Standards (2019 Energy Code)

The 2019 Building Energy Efficiency Standards, in California Code of Regulations, Title 24, Part 6, establish a range of mandatory and prescriptive energy efficiency measures for newly constructed residential and nonresidential buildings, as well as additions and alterations to existing buildings, to reduce wasteful, uneconomical, and unnecessary uses of energy, thereby reducing the rate of growth of energy consumption, prudently conserving energy resources, and assuring that statewide environmental, public safety, and land use goals are met. The 2019 Energy Code initiated focus on the decarbonization of buildings with the introduction of solar PV system requirements for newly constructed low-rise residential buildings. It also introduced the recognition of battery storage systems and demand flexibility options in the form of compliance credits, encouraging the design and installation of systems that support the decarbonization of buildings and grid stability.

Geology, Soils, and Coastal Processes (includes Paleontology)

Geology, Soils, and Coastal Processes (Federal/International)

Uniform Building Code

The Uniform Building Code (1997 and earlier editions) designated and ranked regions of the US, 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.

International Building Code

The International Building Code (IBC) is published by the International Code Council. The scope of this code covers major aspects of construction and design of structures and buildings, except for three-story one- and two-family dwellings and town homes. The IBC has replaced the Uniform Building Code as the basis for the California Building Code and contains provisions for structural engineering design. The 2015 IBC addresses the design and installation of structures and building systems through requirements that emphasize performance. The IBC includes codes governing structural as well as fire- and life-safety provisions covering seismic, wind, accessibility, egress, occupancy, and roofs.

Federal Clean Water Act (CWA) (33 U.S.C. § 1251 et seq.) (see *Hydrology and Water Quality*)

Federal Earthquake Reduction Act

The Earthquake Hazards Reduction Act was passed by the United States Congress in 1977 to reduce the risks to life and property from future earthquakes through the establishment and maintenance of an effective earthquake hazards and reduction program. To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). The agencies responsible for coordinating NEHRP are the Federal Emergency Management Agency (FEMA), the National Institute of Standards and Technology (NIST), the National Science Foundation (NSF); and the USGS. In 1990, NEHRP was amended by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of the agency responsibilities, program goals, and objectives. The four goals of the NEHRP are: (1) develop effective practices and policies for earthquake loss-reduction and accelerate their implementation; (2) improve techniques to reduce seismic vulnerability of facilities and systems; (3) improve seismic hazards identification and risk-assessment methods and their use; and (4) improve the understanding of earthquakes and their effects.

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.

Antiquities Act of 1906

The Antiquities Act was the first law enacted to specifically establish that archaeological sites on public lands are important public resources, and it obligated federal agencies that manage public lands to preserve the scientific, commemorative, and cultural values of such sites. This act does not refer to paleontological resources specifically; however, the act does provide for the protection of “objects of antiquity” (understood to include paleontological resources) by various federal agencies not covered by the Omnibus Public Land Management Act-Paleontological Resources Preservation.

Geology, Soils, and Coastal Processes (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. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive. These classifications are qualified by the conditions that a fault must be shown to be “sufficiently active” and “well defined” by detailed site-specific geologic explorations in order to determine whether building setbacks should be established. (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., Title 24)

The California Building Code provides a minimum standard for building design, which is based on the Uniform Building Code, 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. Chapter 16 contains specific requirements for seismic safety. Chapter 18 regulates excavation, foundations, and retaining walls. Chapter 33 contains specific requirements pertaining to site demolition, excavation, and construction to protect people and property from hazards associated with excavation cave-ins and falling

debris or construction materials. Chapter 70 regulates grading activities, including drainage and erosion. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching, as specified in the State of California Division of Occupational Safety and Health (commonly called Cal/OSHA) regulations (Title 8 of the CCR) and in Section A33 of the California Building Code.

Seismic Hazards Mapping Act & Mapping Regs (Pub. Resources Code, § 2690; Cal. Code Regs., title 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 Geological Survey (CGS) Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California (CGS, 2008), 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.

Coastal Act Chapter 3 policies (see Multiple Environmental Issues)

With respect to geological resources, § 30253 requires, in part, that: New development shall: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard; and (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. § 30243 also states in part that the long-term productivity of soils and timberlands shall be protected.

Other

Public Resources Code § 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 § 622.5 sets the penalties for damage or removal of paleontological resources.

Penal Code § 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.

Greenhouse Gas Emissions

Greenhouse Gas Emissions (Federal/International)

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

In 2007, the US Supreme Court ruled that carbon dioxide (CO₂) 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 (CO₂e) emissions per year) in the US. 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: CO₂, 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 US was a signatory to the Kyoto Protocol; however, Congress has not ratified it and the US is not bound by the Protocol's commitments.

In December 2015, the Paris Climate Agreement was endorsed and adopted by 195 countries including the US (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 CO₂e emissions by 169 million metric tons (MMT) from the State's projected 2020 emissions level of 596 MMT CO₂e 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.

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 § 15064.4 was also added to provide an approach to assessing impacts from GHGs.

As discussed in State CEQA Guidelines § 15064.4, the determination of the significance of GHG emissions calls for a careful judgment by the lead agency, consistent with the provisions in § 15064. § 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.

§ 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

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 and required them to develop regional land use and transportation plans and demonstrate an ability to attain the proposed reduction targets by 2020 and 2035.

SB 350 (Stats. 2015, ch. 547) establishes renewable energy and GHG reduction objectives to be achieved by 2030, including: to increase the Renewable Portfolio Standard from 33 percent to 50 percent for the procurement of California's electricity from renewable sources, a target that was accelerated in 2018; and to double the energy efficiency savings in electricity and natural gas end uses by retail customers.

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.

SB 32 (Stats. 2016, ch. 249) codifies the GHG emissions target to 40 percent below the 1990 level by 2030.

SB 100 (Stats. 2018, ch. 312) establishes the policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers by December 31, 2045.

Executive Orders (Eos)

EO B-55-18 (Governor Brown, 2018) establishes a statewide goal for California to achieve carbon neutrality by 2045.

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 transportation 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.

Hazardous and Radiological Materials

Radiological Materials (Federal)

Nuclear Waste Policy Act of 1982, as Amended

Establishes the federal government's responsibility to provide a place for the permanent disposal of high-level radioactive waste and spent nuclear fuel, and the generators' responsibility to bear the costs of permanent disposal. Amendments to the Act have focused the federal government's efforts, through the US Department of Energy, regarding a possible site at Yucca Mountain, Nevada.

Atomic Energy Act of 1954, as Amended

This Act is the fundamental US law on both the civilian and the military uses of nuclear materials. On the civilian side, it provides for both the development and the regulation of the uses of nuclear materials and facilities in the US, declaring the policy that "the development, use, and control of atomic energy shall be directed so as to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition in private enterprise." The Act requires that civilian uses of nuclear materials and facilities be licensed, and it empowers the NRC to establish by rule or order, and to enforce, such standards to govern these uses as "the Commission may deem necessary or desirable to protect health and safety and minimize danger to life or property." Commission action under the Act must conform to the Act's procedural requirements, which provide an opportunity for hearings and federal judicial review in many instances.

Under § 274 of the Act, the NRC may enter into an agreement with a state for discontinuance of the NRC's regulatory authority over some materials licensed within the State. The State must first show that its regulatory program is compatible with the NRC's and adequate to protect public health and safety. The NRC retains authority over, among other things, nuclear power plants within the State and exports from the State.

A major amendment to the Act established compensation for, and limits on, licensee liability for injury to off-site persons or damage to property caused by nuclear accidents.

Energy Reorganization Act of 1974

This Act established the NRC. Under the Atomic Energy Act of 1954, a single agency, the Atomic Energy Commission, had responsibility for the development and production of nuclear weapons and for both the development and the safety regulation of the civilian uses of nuclear materials. The Act of 1974 split these functions, assigning to one agency, now the US Department of Energy, the responsibility for the development and production of nuclear weapons, promotion of nuclear power, and other energy-related work, and assigning regulatory work to the NRC, which does not include regulation of defense nuclear facilities. The Act of 1974 gave the NRC its structure and established its major offices. The later amendment to the Act also provided protections for employees who raise nuclear safety concerns.

Low-Level Radioactive Waste Policy Amendments Act of 1985

Gives states the responsibility to dispose of low-level radioactive waste generated within their borders and allows them to form compacts to locate facilities to serve a group of states. The Act provides that the facilities will be regulated by the NRC or by states that have entered into agreements with the NRC under § 274 of the Atomic Energy Act. The Act also requires the NRC to establish standards for determining when radionuclides are present in waste streams in sufficiently low concentrations or quantities as to be "below regulatory concern."

Reorganization Plans

Reorganization Plan No. 1 of 1980 strengthened the executive and administrative roles of the NRC Chairman, particularly in emergencies, transferring to the Chairman "all the functions vested in the Commission pertaining to an emergency concerning a particular facility or materials ... regulated by the Commission." This Reorganization Plan also provided that all policy formulation, policy-related rule-making, and orders and adjudications would remain vested with the full Commission.

Reorganization Plan No. 3 of 1970 gave the US Environmental Protection Agency a role in establishing “generally applicable environmental standards for the protection of the general environment from radioactive material.” See 40 CFR Part 190 – Environmental Radiation Protection Standards for Nuclear Power Operations.

Safe Drinking Water Act

The USEPA’s authority under the Safe Drinking Water Act sets Federal limits for drinking water contaminants. Water suppliers must provide water that meets these standards, called maximum contaminant levels. Some states have adopted the USEPA’s drinking water standards as legally enforceable ground-water protection standards. These standards are often used in assessing laboratory test results of water from private wells. The USEPA has set a dose-based drinking water standard of 4 millirem or mrem (mrem is one thousandth of a rem, which is a unit of measure for large doses of radiation) per year based on a maximum contaminant level of 20,000 picocuries per liter (pCi/L) for tritium. If other similar radioactive materials are also present in the drinking water, the annual dose from all the materials combined shall not exceed 4 mrem per year. In 1991, USEPA used improved calculations to conclude a tritium concentration of 60,900 pCi/L would yield a 4 mrem per year dose. USEPA kept the 20,000 pCi/L value for tritium in its latest regulations (NRC, 2019).

Code of Federal Regulations, Title 10

Regulations regarding the decommissioning of NRC-licensed plants appear in the Code of Federal Regulations (a codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government). Regulations related to the decommissioning of power reactors are found in Title 10, Energy, Chapter I—Nuclear Regulatory Commission. For example:

- Part 20. Standards for Protection Against Radiation. Relevant subparts include: 20.1402, Radiological criteria for unrestricted use; 20.1403, Criteria for license termination under restricted conditions; 20.1404, Alternate criteria for license termination; 20.1405, Public notification and public participation; 20.1406, Minimization of contamination;
- Part 50. Domestic Licensing of Production and Utilization Facilities. Relevant regulations to decommissioning include 50.75, Reporting and record keeping for decommissioning planning; and 50.82, Termination of license;
- Part 51. Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions. Relevant subparts that have impact to decommissioning are 51.53, Post-construction environmental reports; and 51.95, Post-construction environmental impact statements. These regulations state the technical and financial criteria for decommissioning licensed nuclear facilities. They address decommissioning, planning needs, timing, funding methods, and environmental review requirements.
- Part 71. Packaging and Transportation of Radioactive Material. These regulations establish (1) requirements for packaging, preparation for shipment, and transportation of licensed material; and the (2) procedures and standards for NRC approval of packaging and shipping procedures for fissile material and for the larger quantities of other licensed material.
- Part 72. Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor Related Greater than Class C. The regulations in this part establish requirements, procedures, and criteria for the issuance of licenses to receive, transfer, and possess power reactor spent fuel, power reactor-related Greater than Class C waste, and other radioactive materials associated with spent fuel storage in an independent spent fuel storage installation and the terms and conditions under which the NRC will issue these licenses.
- Part 100. Reactor Site Criteria. The purpose of this part is to establish approval requirements for proposed sites for stationary power and testing reactors subject to part 50 or part 52 of this chapter. Primary factors that determine public health and safety must be identified and include the reactor design, construction and operation. Radiological doses from normal operation and postulated accidents must be acceptably low. Natural phenomena and potential man-made hazards are accounted for in the design of the plant. Siting and physical characteristics must be such that adequate security measures to protect the plant can be developed and that any significant impediment to the development of emergency plans are identified. The NRC’s position is

that siting away from densely populated centers is an important factor in evaluating applications for site approval.

Code of Federal Regulations, Title 40, Protection of Environment

An important regulation for operations (which includes decommissioning) is 40 CFR Part 190 – Environmental Radiation Protection Standards for Nuclear Power Operations. This regulation limits the radiation releases and doses to the public from the normal operations of nuclear power plants and other uranium fuel cycle facilities (i.e., the facilities involved in the manufacture and use of uranium fuel for generating electrical power). The regulation sets limits on the annual dose equivalent to any member of the public to 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other organ. In addition, it specifies limits on the quantity of radioactive materials entering the general environment per gigawatt-year of electricity produced.

Code of Federal Regulations, Title 49, Transportation

Regulations important to shipping of hazardous and radioactive waste are found in Title 49, Transportation, Parts 171-177, General information, regulations, and definitions; Hazardous materials table, special provisions, hazardous materials, communications, emergency response information, and training requirements; Shippers—general requirements for shipments and packaging; Carriage by rail; Carriage by aircraft; Carriage by vessel; and Carriage by public highway.

Hazardous 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 §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.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C., Ch. 103)

CERCLA, commonly known as Superfund, provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party could be identified. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

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 US 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 cover 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.

Oil Pollution Act (OPA) of 1990 (33 U.S.C. § 2712 et seq.)

The OPA requires owners and operators of facilities that could cause substantial harm to the environment to prepare and submit, and maintain up to date, plans for responding to worst-case discharges of oil and hazardous substances and for facilities and vessels to demonstrate that they have sufficient response equipment under contract to respond to and clean up a worst-case spill. The passage of the OPA motivated California to pass a more stringent spill response and recovery regulation and the creation of the Office of Spill Prevention and Response to review and regulate oil spill plans and contracts. 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 US Coast Guard is responsible for tank vessels and marine terminals, the 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.

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.

40 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 the oil spill regulations.

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 US laws and regulations.

Act of 1980 to Prevent Pollution from Ships requires ships in US waters, and all US ships to comply with International Convention for the Prevention of Pollution from Ships (MARPOL).

Clean Water Act (see *Hydrology and Water Quality*)

Convention on the International Regulations for Preventing Collisions at Sea establishes “rules of the road” such as rights-of-way, safe speed, actions to avoid collision, and procedures to observe in narrow channels and restricted visibility.

Hazardous Materials Transportation Act (see *Transportation*)

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

Hazardous and Radiological Materials (State)

Nuclear Power Plants

AB 361 (Stats. 2015, ch. 399) requires the Office of Emergency Services to convene through August 26, 2025, an independent peer review panel to conduct a review of enhanced seismic studies and surveys of the Diablo Canyon Units 1 and 2 power plant, including the surrounding areas of the facility and areas of nuclear waste storage.

Assembly Joint Resolution (AJR) 29 (Stats. 2016, ch. 112) urged Congress to pass the Interim Consolidated Storage Act of 2015 (H.R. 3643), and the US Department of Energy to implement the prompt and safe relocation of spent nuclear fuel from SONGS to a licensed and regulated interim consolidated storage facility.

Clean Coast Act of 2005 (SB 771; Stats. 2005, ch. 588)

This Act (effective January 1, 2006) includes requirements to reduce pollution of California waters from large vessels, such as by: prohibiting and reporting of discharges of hazardous wastes, other wastes, or oily bilge water into California waters or a marine sanctuary; and prohibiting and reporting discharges of grey water and sewage into California waters from vessels with sufficient holding-tank capacity or vessels capable of discharging grey water or sewage to available shore-side reception facilities.

Coastal Act Chapter 3 policies (see *Multiple Environmental Issues*)

Section 30232 of the Coastal Act addresses hazardous materials spills and states that “Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.”

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.

OTHER

Hazardous Waste Control Act (Health & Saf. Code, ch. 6.5 & Cal. Code Regs., title 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 §§ 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) – states hazardous materials should be used and storage in compliance with the state fire codes.

Porter-Cologne Water Quality Control Act (see *Hydrology and Water Quality*)

Seismic Hazards Mapping Act/Regulations (see *Geology, Soils, and Coastal Processes*)

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, §§ 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)

Nuclear Energy Institute Industry Ground Water Protection Initiative (Nuclear Energy Institute 2007)

Under the Industry Ground Water Protection Initiative, each member company operating or decommissioning a nuclear power plant is required to develop and implement a site-specific/company ground water protection program to assure timely and effective management of situations involving inadvertent releases of licensed material to ground water and to implement voluntary communication programs. The Industry Ground Water Protection Initiative guidance identifies actions necessary to achieve these goals, specifies objectives to accomplish each action, and specifies the acceptance criteria to demonstrate that the objectives have been met as identified in site procedures.

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 US. 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 the following:

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 led 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 316(b) (33 U.S.C. § 1326) was implemented by the SWRCB regulating the entrainment and impingement of marine life related to power generating facility intake structures. The policy establishes technology-based standards to reduce the harmful effects associated with ocean cooling water intake structures on marine and estuarine life. The policy applies to existing power plants that can withdraw from State coastal and estuarine waters using a single-pass system (“once-through cooling”). Closed-cycle wet cooling has been selected as best technology available. Permittees must either reduce intake flow and velocity or reduce impacts to aquatic life comparably by other means.

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 US 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. US 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 403 (33 U.S.C. § 1343) provides permit issuance guidelines for ocean discharge. Section 403 provides that point source discharges to the territorial seas, contiguous zone, and oceans are subject to regulatory requirements in addition to the technology – or water quality-based requirements applicable to typical discharges. These requirements are intended to ensure that no unreasonable degradation of the marine environment will occur as a result of the discharge and to ensure that sensitive ecological communities are protected.

Section 404 (33 U.S.C. § 1344) authorizes the US Army Corps of Engineers to issue permits for the discharge of dredged or fill material into waters of the US, including wetlands, streams, rivers, lakes, coastal waters or other water bodies or aquatic areas that qualify as waters of the US.

PG&E maintains NPDES Permit CA0003751, Order 90-09 for the DCP (Central Coast RWQCB, 1990). This NPDES Permit and Order authorize discharge of brine and treated wastewater through dilution into the auxiliary cooling water system, which discharges approximately 2.55 billion gallons of water per day to the Pacific Ocean. These discharges must be tested for pollutants and other water quality parameters to achieve compliance with the regulations, and all discharges must be logged and reported to the local RWQCB. Discharges not authorized by this permit are considered a violation of NPDES and the Clean Water Act and are subject to penalties by the appropriate RWQCB.

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). § 10 provides that construction of any structure in or over any navigable water of the US, or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters, is unlawful unless the US 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 § 404 permits).

National Flood Insurance Program

The National Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA), requires that local governments covered by federal flood insurance pass and enforce a floodplain management ordinance that specifies minimum requirements for any construction within the 100-year flood zone (FEMA, 2021). FEMA is responsible for preparing maps delineating these areas.

California Toxics Rule (40 CFR 131) (see *Hazardous and Radiological Materials*)

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

OTHER

Marine Plastic Pollution Research and Control Act prohibits the discharge of plastic, garbage, and floating wood scraps within 3 nautical miles of land. Beyond 3 nautical miles, garbage must be ground to less than 1 inch, but discharge of plastic and floating wood scraps is still restricted. This Act requires manned offshore platforms, drilling rigs, and support vessels operating under a federal oil and gas lease to develop waste management plans.

Navigation and Navigable Waters (33 CFR) regulations include requirements pertaining to prevention and control of releases of materials from vessels (e.g., oil spills), traffic control, and restricted areas, and general ports and waterways safety.

Oil Pollution Act (OPA) (see *Hazardous and Radiological Materials*)

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 US must seek a Water Quality 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. 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. The Central Coast RWQCB Basin Plan designates beneficial uses for surface and ground-water, sets narrative and numeric water quality objectives, and establishes implementation programs for the Central Coast Region (Central Coast RWQCB, 2019).

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. In 2015, an amendment to the Ocean Plan was adopted to address effects associated with construction and operation of desalination facilities (SWRCB, 2015). The amendment allows for use of ocean water as a supplement to traditional water supplies while protecting marine life and water quality. The amendment provides a consistent process for permitting desalination facilities statewide, direction

for regional water boards when permitting new or expanded facilities, and specific implementation and monitoring and reporting requirements.

Other: Water Quality Control Plan for Enclosed Bays and Estuaries of California; and Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal 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.

Coastal Act Chapter 3 policies (see Multiple Environmental Issues)

§ 30231 states that the biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Harbors and Navigation Code §§ 650-674

This code specifies a state policy to “promote safety for persons and property in and connected with the use and equipment of vessels,” and includes laws concerning marine navigation that are implemented by local city and county governments. This Code also regulates discharges from vessels within territorial waters of the State of California to prevent adverse impacts on the marine environment. This code regulates oil discharges and imposes civil penalties and liability for cleanup costs when oil is intentionally or negligently discharged to the waters of the State of California.

California Fish and Game Code (CFGC)

§5650 prohibits discharge of harmful materials to waters of the state (CFGC, 2021). It is unlawful to deposit in, permit to pass into, or place where it can pass into California waters, any petroleum, acid, coal or oil tar, lampblack, aniline, asphalt, bitumen, or residuary product of petroleum; any carbonaceous material or substance; any refuse, liquid or solid, from a refinery, gas house, tannery, distillery, chemical works, mill, or factory of any kind; any sawdust, shavings, slabs, or edgings; any factory refuse, lime, or slag; any *cocculus indicus*;¹ or any substance or material deleterious to fish, plant, mammal, or bird life. CFGC § 5655 requires that parties responsible for polluting waters of the state pay for removal costs and environmental damages.

§§ 1600 to 1607 require CDFW notification for any activity that could affect the bank or bed of any stream that has value to fish and wildlife (CFGC, 2021). After notification, the CDFW has the responsibility for preparation of a Streambed Alteration Agreement, in consultation with the project proponent. The CDFW does not currently employ a formal definition of watercourses under its jurisdiction. The CDFW has jurisdiction over alterations to any channel with a definable bank and bed that is capable of accommodating water flow. Wetlands need not be present to establish CDFW jurisdiction. CDFW jurisdiction generally extends to work conducted within the 100-year floodplain.

Construction General Permit

In September 2009, the SWRCB adopted the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-009-DWQ, as amended by Order No. 2010-

¹ *Cocculus indicus* is prohibited based on the practice of grinding up the roots of certain *Cocculus* plants (most commonly Yucca plants) and spreading them in the water to “stun” fish for collection.

0014-DWQ and Order No. 2012-006-DWQ (Construction General Permit), which regulates stormwater from construction sites (SWRCB, 2012). Dischargers whose projects disturb 1 or more acres of soil or disturb less than 1 acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the Construction General Permit. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling. The permit requires development and implementation of a SWPPP. Typical best management practices contained in SWPPPs are designed to minimize erosion during construction, control sediment and pollutants from construction materials, and stabilize construction areas.

Industrial General Permit

In April 2014, the SWRCB adopted the *Statewide General Permit for Stormwater Discharges Associated with Industrial Activities*, Order No. 2014-0057-DWQ, as amended by Order No. 2015-0122-DWQ (Industrial General Permit), which regulates industrial storm water discharges and authorized non-storm water discharges from industrial facilities in California (SWRCB, 2018). Under the permit, facilities must meet effluent and receiving water limitations, develop and implement a SWPPP, and develop and implement a monitoring program to demonstrate compliance. DCPP currently operates under Industrial General Permit Waste Discharge Identification (WDID) No. 3 40I018248, which authorizes discharges of industrial stormwater to waters of the United States.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), passed in 2014, created a framework for sustainable, local groundwater management in California called the California Department of Water Resources (2021). SGMA directed the California Department of Water Resources to identify groundwater basins for implementing the SGMA. Only high and medium priority basins are currently subject to SGMA requirements, including the requirement of Groundwater Sustainability Agencies to develop and implement Groundwater Sustainability Plans.

Marine Managed Areas Improvement Act.

This Act established the California Marine Managed Areas System, extended State Parks' management jurisdiction into the marine environment, and gives priority to MPAs adjacent to protected terrestrial lands. For example, more than 25 percent of the California coastline is within the State Park System.

OTHER

Clean Coast Act of 2005 (see *Hazardous and Radiological Materials*)

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

Water Code § 8710 requires that a reclamation board permit be obtained prior to the start of any work, including excavation and construction activities, if projects are located within floodways or levee sections. Structures for human habitation are not permitted within designated floodways.

Water Code § 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.

Land Use and Planning (includes Agricultural Resources)

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.

Coastal Act Chapter 3 policies (see *Multiple Environmental Issues*)

California Coastal Act. The California Coastal Act establishes a comprehensive approach to govern land use planning along the entire California coast. The coastal zone is defined in Section 30103 of the Coastal Act as the following:

(a) "Coastal zone" means that land and water area of the State of California from the Oregon border to the border of the Republic of Mexico...extending seaward to the state's outer limit of jurisdiction, including all offshore islands, and extending inland generally 1,000 yards from the mean high tide line of the sea. In significant coastal estuarine, habitat, and recreational areas it extends inland to the first major ridgeline paralleling the sea or five miles from the mean high tide line of the sea, whichever is less, and in developed urban areas the zone generally extends inland less than 1,000 yards.

§ 30106. Construction and operation of DCPD required a Coastal Development Permit from the CCC, and its decommissioning will as well.

§ 30220 – Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

§ 30221 – Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

§ 30222 – The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.

§ 30223 – Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

§ 30224 – Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.

Mineral Resources

Mineral Resources (Federal)

CFR, Titles 10, 18, and 30

10 CFR addresses energy consumption and the Department of Energy

18 CFR addresses the Federal Energy Regulatory Commission (FERC)

30 CFR establishes the Bureau of Ocean Energy Management, which manages energy resources in the Outer Continental Shelf

Mineral Resources (State)

Surface Mining and Reclamation Act (SMARA) (Pub. Resources Code, §§ 2710-2796).

The California Department of Conservation is the primary agency with regard to mineral resource protection. The Department, which is charged with conserving earth resources (Pub. Resources Code, §§ 600-690), has five program divisions: California Geological Survey (CGS); Division of Oil, Gas, and Geothermal Resources; Division of Land Resource Protection; State Mining and Geology Board (SMGB); and Division of Mine Reclamation. SMGB develops policy direction regarding the development and conservation of mineral resources and reclamation of mined lands. In accordance with SMARA, CGS classifies the regional significance of mineral resources and assists in designating lands containing significant aggregate resources. Four Mineral Resource Zones (MRZs) are designated to indicate the significance of mineral deposits.

MRZ-1 – Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence

MRZ-2 – Areas where adequate information indicates significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence

MRZ-3 – Areas containing mineral deposits the significance of which cannot be evaluated from available data

MRZ-4 – Areas where available information is inadequate for assignment to any other MRZ

The Warren-Alquist Act

This act was adopted in 1974 to encourage conservation of non-renewable energy resources.

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* (see below).

NTIS 550\9-74-004, 1974

NTIS 550\9-74-004, *Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety* (USEPA, 1974), commonly referenced as the “Levels Document,” 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. These levels are not enforceable standards or regulations. They are provided in order to protect the public health and welfare, and to provide guidelines for the creation and implementation of local noise standards.

FHWA (Federal Highway Administration) Noise Standard 23 CFR 772 (23 U.S.C. 109(h))

The FHWA noise abatement criteria establish absolute exterior noise levels for varying land use categories where an impact is triggered. The noise abatement criteria require maintenance of Leq for noise levels emitted in lands classified categories “A” (lands for which serenity and quietness are significant), “B”

(lands near sensitive receptors, defined as picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals) as 67 dBA, and “C” (developed lands, properties, or activities not included in categories “A” or “B”) as 72 dBA.

Federal Transit Administration – Transit Noise and Vibration Impact Assessment Manual

This manual provides guidelines on allowable increases in cumulative noise levels due to high-speed rail projects. This guideline is not applicable to utility construction projects but indicates the increase in noise exposure that would have no impact, moderate impact, and severe impact based on the category of land use.

US Fish and Wildlife Endangered Species Act (ESA)

Under the ESA, “endangered” indicates that a species is at risk of extinction throughout at least a substantial portion of its geographic range. A species is considered to be ‘threatened’ when it is probable to become endangered within the foreseeable future. In accordance with this act the US Fish and Wildlife Service will identify potential impacts to federally endangered and threatened species and will determine whether an Incidental Take Authorization permit is required.

National Oceanic Atmospheric Administration (NOAA) – Fish under ESA and marine mammals under Marine Mammal Protection Act (MMPA)

The MMPA passed in 1972. This Act protects all marine mammals and makes it illegal to “take” any marine mammal without a permit, with “take” meaning to “harass, hunt, capture, kill, or attempt to harass, hunt, capture, or kill” (NOAA, 1972). The original MMPA did not include a definition of harassment, but the 1994 amendment included the definition as “any act of pursuit, torment, or annoyance,” with two level of harassment defined based on National Research Council recommendations (NOAA, 1994).

- Level A harassment can potentially injure wild marine mammals or stocks.
- Level B harassment can potentially disturb wild marine mammals or stocks by disturbing behaviors, including sheltering, feeding, migrations, nursing, or breathing (NOAA, 1994).

National Research Council – Recommended Values for Level A and Level B Marine Mammal Acoustic Harassment (National Research Council, 2000)

The MMPA does not describe specific noise levels, which would be considered take or harassment.

However, the National Research Council has published recommended values for Level A and Level B marine mammal acoustic harassment.

- Level A: Level A acoustic harassment is recommended to be defined as sounds that result in a TTS (Temporary Threshold Shift) for the target marine mammal group. The preliminary criterion is that a TTS of 10 decibels (dB) or less, separated by 24-hour episodes of no exposure (i.e., to allow recovery), is not considered Level A acoustic harassment. Any exposure greater than these levels meets Level A harassment.
- Level B: Level B acoustic harassment is recommended to be defined as “the potential to disturb a marine mammal or marine mammal stock in the wild by causing meaningful disruption of biologically significant activities, including but not limited to, migration, breeding, care of young, predator avoidance or defense, and feeding”. The NRC does not state a sound level criterion for the above disruptions and instead have proposed that the criteria used to determine whether species are undergoing Level B acoustic harassment should be the number of individuals or percent of the population potentially impacted and the risk to those individuals. Determining risk should also include the consideration of the proximity of critical habitat and the sensitivity of marine mammals.

Noise (State)

California Noise Control Act California Health and Safety Code §§ 46000 - 46080

The California Noise Control Act states that excessive noise is a serious hazard to public health and welfare. It declares that exposure to certain levels of noise can result in damage, whether it be psychological,

physiological, or even economic. This act declares that the State of California is responsible for protecting the health and welfare of its citizens, and must control, prevent, and abate hazardous noise.

Noise Element Guidelines (referenced by the California Noise Control Act above and contained in updated General Plan Guidelines- Appendix D) as established by the Office of Noise Control in the State Department of Health Services

The state outlines acceptable community noise exposure levers for different land use categories and encourages local municipalities to adopt and apply community noise ordinances based on the acceptability of the CNELs (Community Noise Exposure Level).

For residences, an exterior noise level of 60 to 65 dBA CNEL is considered "normally acceptable;" a noise level of greater than 75 dBA CNEL is considered "clearly unacceptable."

For transient Lodging, an exterior noise level of 65 dBA CNEL is considered "normally acceptable;" a noise level of greater than 80 dBA CNEL is considered "clearly unacceptable."

For schools, libraries, churches, hospitals, and nursing homes, an exterior noise level of 70 dBA CNEL is considered "normally acceptable;" a noise level of greater than 80 dBA CNEL is considered "clearly unacceptable."

For auditoriums, concert halls, and amphitheatres, an exterior noise level of 70 dBA CNEL is considered "conditionally acceptable."

For sports arenas, outdoor spectator sports, an exterior noise level of 75 dBA CNEL is considered "conditionally acceptable."

For playgrounds and neighborhood parks, an exterior noise level of 70 dBA CNEL is considered "normally acceptable;" a noise level of greater than 72 dBA CNEL is considered "clearly unacceptable."

For golf courses, riding stables, water recreations, and cemeteries, an exterior noise level of 70 dBA CNEL is considered "normally acceptable;" a noise level of greater than 72 dBA CNEL is considered "clearly unacceptable."

For office buildings, an exterior noise level of 70 dBA CNEL is considered "normally acceptable;" a noise level of greater than 75 dBA CNEL is considered "normally unacceptable."

For industrial, manufacturing, utilities, and agriculture, an exterior noise level of 75 dBA CNEL is considered "normally acceptable;" a noise level of greater than 75 dBA CNEL is considered "normally unacceptable."

California Department of Transportation Construction-Induced Vibration Guidance

This guidance provides practical methodologies on addressing vibration issues associated with construction, operation, and maintenance of Caltrans projects. Continuous/frequent intermittent vibration sources are significant when the peak particle velocity (PPV) exceeds 0.1 inch per second.

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 Caltrans 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 the proposed Project.

Public Services and Utilities

Public Services and Utilities (Federal)

CFR Title 10, Part 73.55

10 CFR 73.55 outlines requirements that each nuclear power reactor licensee shall implement for the physical protection nuclear power reactors. Licensees must develop security plans that address site-specific conditions and maintain onsite physical protection. Vehicles inside the protected area must be operated by an individual authorized unescorted access to the area or must be escorted by an individual. Vehicle use inside the protected area must be limited to plant functions or emergencies, and keys must be removed, or the vehicle otherwise disabled, when not in use. Vehicles transporting hazardous materials inside the protected area must be escorted by an armed member of the security organization.

CFR Title 29

Under 29 CFR 1910.38, when required by an Occupational Safety and Health Administration (OSHA) standard, an employer must have an Emergency Action Plan that must be in writing, kept in the workplace, and available to employees for review. An employer with 10 or fewer employees may communicate the plan orally to employees. Minimum elements of an emergency action plan include the following procedures: Reporting a fire or other emergency; emergency evacuation, including type of evacuation and exit route assignments; employees who remain to operate critical plant operations before they evacuate; account for all employees after evacuation; and employees performing rescue or medical duties.

Under 29 CFR 1910.39, an employer must have a Fire Prevention Plan (FPP). A FPP must be in writing, be kept in the workplace, and be made available to employees for review; an employer with 10 or fewer employees may communicate the plan orally to employees.

Under 29 CFR 1910.155, Subpart L, Fire Protection, employers are required to place and keep in proper working order fire safety equipment within facilities.

Public Services and Utilities (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.

Coastal Act Chapter 3 policies (see *Multiple Environmental Issues*)

§ 30250 – (a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas

able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

(b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.

(c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.

§ 30253 – New development shall do all of the following:

- (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.
- (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.
- (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development.
- (d) Minimize energy consumption and vehicle miles traveled.
- (e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.

§ 30254 – New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal-dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

§ 30254.5 – Notwithstanding any other provision of law, the commission may not impose any term or condition on the development of any sewage treatment plant which is applicable to any future development that the commission finds can be accommodated by that plant consistent with this division.

Government Code, title 1, div. 5, ch. 3.1, Protection of Underground Infrastructure

Requires an excavator to contact a regional notification center at least 2 days prior to excavation of any subsurface installation. Any utility provider seeking to begin a project that may damage underground infrastructure can call Underground Service Alert, the regional notification center, which will notify utilities that may have buried lines within 1,000 feet of the project. Utility representatives are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area.

California Executive Order (EO) D-62-02 (see *Hazardous and Radiological Materials*)

Recreation and Public Access

Recreation and Public Access (State)

Coastal Act Chapter 3 policies (see *Multiple Environmental Issues*)

§ 30210 – In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the

people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

§ 30211 – Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

§ 30212 – (a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway. (...)

§ 30212.5 – Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.

§ 30213 – Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. The commission shall not: (1) require that overnight room rentals be fixed at an amount certain for any privately owned and operated hotel, motel, or other similar visitor-serving facility located on either public or private lands; or (2) establish or approve any method for the identification of low or moderate income persons for the purpose of determining eligibility for overnight room rentals in any such facilities.

§30214 – (a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following: (1) Topographic and geologic site characteristics. (2) The capacity of the site to sustain use and at what level of intensity. (3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses. (4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter. (b) It is the intent of the Legislature that the public access policies of this article be carried out in a reasonable manner that considers the equities and that balances the rights of the individual property owner with the public's constitutional right of access pursuant to Section 4 of Article X of the California Constitution. Nothing in this section or any amendment thereto shall be construed as a limitation on the rights guaranteed to the public under Section 4 of Article X of the California Constitution. (c) In carrying out the public access policies of this article, the commission and any other responsible public agency shall consider and encourage the utilization of innovative access management techniques, including, but not limited to, agreements with private organizations which would minimize management costs and encourage the use of volunteer programs.

§ 30220 – Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

§ 30221 – Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

§ 30222 – The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industry.

§ 30222.5 – Oceanfront land that is suitable for coastal dependent aquaculture shall be protected for that use, and proposals for aquaculture facilities located on those sites shall be given priority, except over other coastal dependent developments or uses.

§ 30223 – Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.

Transportation

Transportation (Federal)

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

The HMTA delegates authority to the US 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.

Ports and Waterways Safety Act

This Act provides the authority for the US Coast Guard to increase vessel safety and protect the marine environment in ports, harbors, waterfront areas, and navigable waters, including by authorizing the Vessel Traffic Service, controlling vessel movement, and establishing requirements for vessel operation.

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.

Title 23 (Highways), CFR, §450.220

Requires each state to carry out a continuing, comprehensive, and intermodal statewide transportation planning process. This planning process must include the development of a statewide transportation plan and transportation improvement program that facilitates the efficient, economic movement of people and goods in all areas of the state.

Transportation (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. 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.

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, 2019b), establishes uniform policies and procedures to carry out the state 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.

Harbors and Navigation Code §§ 650-674

This code specifies a policy to "promote safety for persons and property in and connected with the use and equipment of vessels," and includes laws concerning marine navigation that are implemented by local city and county governments. This Code also regulates discharges from vessels within territorial waters of

the State of California to prevent adverse impacts on the marine environment. This code regulates oil discharges and imposes civil penalties and liability for cleanup costs when oil is intentionally or negligently discharged to state waters.

SB 730 (Stats. 2015, ch. 283)

Prohibits a freight train from operating in California unless it has a crew of at least two individuals.

Wildfire

Wildfire (Federal)

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) requires utilities to adopt and maintain minimum clearance standards between vegetation and transmission voltage power lines. These clearances vary depending on voltage. In most cases, however, the minimum clearances required in state regulations (California Public Utilities Commission General Order 95) are greater than the federal requirement.

Federal Wildland Fire Management Policy

The Federal Wildland Fire Management Policy was developed in 1995 and updated in 2001 by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions. An important component of the Federal Wildland Fire Management Policy is the acknowledgement of the essential role of fire in maintaining natural ecosystems.

National Fire Plan

The National Fire Plan is a Presidential Directive passed in 2000 as a response to severe wildland fires that had burned throughout the United States. The National Fire Plan focuses on reducing fire impacts on rural communities and assurance for sufficient firefighting capacity in the future. The plan is a long-term commitment based on cooperation and communication among federal agencies, states, local governments, tribes, and interested publics. There are five key areas addressed under the National Fire Plan including firefighting and preparedness, rehabilitation and restoration, hazardous fuels reduction, community assistance, and accountability.

International Fire Code

Created by the International Code Council, the International Fire Code addresses a wide array of conditions hazardous to life and property including fire, explosions, and hazardous materials handling or usage. The International Fire Code places an emphasis on prescriptive and performance-based approaches to fire prevention and fire protection systems. Updated every 3 years, the International Fire Code uses a hazards classification system to determine the appropriate measures to be incorporated to protect life and property (often these measures include construction standards and specialized equipment). The International Fire Code uses a permit system (based on hazard classification) to ensure that required measures are instituted.

North American Electric Reliability Corporation (NERC) Standards

The NERC is a nonprofit corporation comprising 10 regional reliability councils. The overarching goal of NERC is to ensure the reliability of the bulk power system in North America. To achieve its goal, the NERC develops and enforces reliability standards, monitors the bulk power systems, and educates, trains, and certifies industry personnel. NERC developed a transmission vegetation management program that is applicable to all transmission lines operated at 200 kV and above to lower voltage lines designated by the Regional Reliability Organization as critical to the reliability of the electric system in the region. The plan, which became effective on April 7, 2006, establishes requirements of the formal transmission vegetation management program, which include identifying and documenting clearances between vegetation and any overhead, ungrounded supply conductors, while taking into consideration transmission line voltage,

the effects of ambient temperature on conductor sag under maximum design loading, fire risk, line terrain and elevation, and the effects of wind velocities on conductor sway.

Institute of Electrical and Electronics Engineers Standard 516-2003

The Institute of Electrical and Electronics Engineers is a leading authority in setting standards for the electric power industry. Standard 516-2003, Guide for Maintenance Methods on Energized Power Lines, establishes minimum vegetation-to-conductor clearances to maintain electrical integrity of the electrical system.

Wildfire (State)

California Fire Code

The California Fire Code is contained within Chapter 9 of Title 24 of the California Code of Regulations. The California Fire Code regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the California Fire Code and the California Building Code use a hazards classification system to determine the appropriate measures to incorporate to protect life and property.

California Health and Safety Code

State fire regulations are established in § 13000 of the California Health and Safety Code. This section establishes building standards, fire protection device equipment standards, high-rise building and child-care facility standards, interagency support protocols, and emergency procedures. Also, § 13027 states that the state fire marshal shall notify industrial establishments and property owners having equipment for fire protective purposes of the changes necessary to bring their equipment into conformity with and shall render them such assistance as may be available in converting their equipment to, standard requirements.

California Fire Plan

The California Fire Plan is the statewide plan for reducing the risk of wildfire by placing emphasis on fire prevention through means such as fuel reduction, zoning restrictions, and fire safety requirements. The Fire Plan seeks to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health.

California Public Utilities Commission (CPUC) General Order 95: Rules for Overhead Electric Line Construction

General Order (GO) 95 is the key standard governing the design, construction, operation, and maintenance of overhead electric lines in the State. It was adopted in 1941 and updated most recently in 2006. GO 95 includes safety standards for overhead electric lines, including minimum distances for conductor spacing, minimum conductor ground clearance, standards for calculating maximum sag, electric line inspection requirements, and vegetation clearance requirements.

Rule 31.2, Inspection of Lines, requires that lines be inspected frequently and thoroughly for the purpose of ensuring that they are in good condition, and that lines temporarily out of service be inspected and maintained in such condition as not to create a hazard.

Public Resources Code § 4291

Public Resources Code § 4291 provides that a person who owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material, shall at all times maintain defensible space of 100 feet from each side and from the front and rear of the structure, but not beyond the property line. The intensity of fuels management may vary within the 100-foot perimeter of the structure, with more intense fuel reductions being utilized between 5 and 30 feet around the structure, and the ember-resistant zone is required within 5 feet of the structure. Maintenance of fuels focuses primarily on removal of dead or dying woody vegetation and vegetative materials/debris.

California Code of Regulations Title 14, § 1299.03

§ 1299.03 of the California Code of Regulations cites Public Resources Code § 4291 (above) to define requirements for each defensible space “Zone” as follows: “Zone 1” extends 30 feet out from each building or structure, or to the property line, whichever comes first; “Zone 2” extends from 30 feet to 100 feet from each building or structure, but not beyond the property line. The vegetation treatment requirements for Zone 1 include removal of all dead or dying grass, plants, shrubs, trees, branches, leaves, weeds, and pine needles; removal of dead tree or shrub branches adjacent or overhanging buildings or structures; relocation of exposed firewood piles outside of Zone 1 unless they are completely covered in fire-resistant material; and removal of flammable vegetation and items adjacent or under combustible decks, balconies, and stairs. Vegetation treatment requirements for Zone 2 require creation of horizontal and vertical spacing among shrubs and trees; removal of dead and dying woody fuels; cutting of annual grasses and forbs; and requiring a minimum of 10 feet of clearance for all exposed wood piles.

California Department of Forestry and Fire Protection (CAL FIRE)

CAL FIRE is responsible for reducing wildfire-related impacts and enhancing California’s resources. CAL FIRE responds to all types of emergencies including wildland fires and residential/commercial structure fires. This agency is responsible for the protection of approximately 31 million acres of private land within the state and, at the local level, is responsible for inspecting defensible space around private residences. CAL FIRE is the responsible agency for enforcing California fire safety codes included in the California Code of Regulations and California Public Resources Codes.

Coastal Act Chapter 3 Policies

Chapter 3, Article 6, § 30253 requires that new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard.

FREQUENTLY USED ACRONYMS AND ABBREVIATIONS

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

§	Section
AB	Assembly Bill
ADA	American with Disabilities Act
AHPA	Archaeological and Historic Preservation Act
APCD	Air Pollution Control District
ARPA	Archaeological Resources Protection Act
BCDC	San Francisco Bay Conservation and Development Commission
BGEPA	Bald and Golden Eagle Protection Act
CAAQS	California Ambient Air Quality Standards
Cal. Code Regs.	California Code of Regulations
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCNM	California Coastal National Monument
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFGF	California Fish and Game Code
CFR	Code of Federal Regulations
CGS	California Geologic Survey
CNEL	Community Noise Exposure Level
CO, CO ₂ , CO ₂ e	carbon monoxide, carbon dioxide, carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSLC	California State Lands Commission
CWA	Clean Water Act
dB, dBA	decibels; A-weighted decibels
DCPP	Diablo Canyon Power Plant
EFH	Essential Fish Habitat
EO	Executive Order
ESA	Endangered Species Act
FCAA	Federal Clean Air Act
Fed. Reg.	Federal Register
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FPP	Fire Prevention Plan
FTA	Federal Transit Administration
GHG	greenhouse gas
GO	General Order
HAPs	hazardous air pollutants
HMTA	Hazardous Material Transportation Act
hp	horsepower

HRAs	health risk assessments
IBC	International Building Code
Ldn	Day/Night Average Noise Level
MARPOL	International Convention for the Prevention of Pollution from Ships
MBTA	Migratory Bird Treaty Act
MISA	Marine Invasive Species Act
MLPA	Marine Life Protection Act
MMPA	Marine Mammal Protection Act
MMT	million metric tons
MOTEMS	Marine Oil Terminal Engineering and Maintenance Standards
MOU	Memorandum of Understanding
MPA	Marine Protected Area
MRZ	Mineral Resource Zones
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standards
NACE	National Association of Corrosion Engineers
NAHC	Native American Heritage Commission
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NERC	North American Electric Reliability Corporation
NHPA	National Historic Preservation Act
NISA	National Invasive Species Act
NIST	National Institute of Standards and Technology
NMFS	National Marine Fisheries Service
NOAA	National Oceanic Atmospheric Administration
NOx	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NRC	US Nuclear Regulatory Commission
NRHP	National Register of Historic Places
OPA	Oil Pollution Act
OSHA	Occupational Safety and Health Administration
OSPR	Office of Spill Prevention and Response
OSPRA	Oil Spill Prevention and Response Act
pCi/L	picocuries per liter
PERP	Portable Equipment Registration Program
PM10, PM2.5	particulate matter 10 microns, 2.5 microns (or smaller)
P.L.	Public Law
ppm	parts per million
PPV	peak particle velocity
PRP	Paleontological Resources Preservation
Pub. Resources Code	Public Resources Code
RCRA	Resource Conservation and Recovery Act
RPS	Renewable Portfolio Standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan

SMARA	Surface Mining and Reclamation Act
SMCAs	State Marine Conservation Areas
SMGB	State Mining and Geology Board
SMPs	State Marine Parks
SMRs	State Marine Reserves
SPCC	Spill Prevention Countermeasures and Control
SWPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMDL	total maximum daily load
TSCA	Toxic Substances Control Act
TTS	Temporary Threshold Shift
U.S.C.	United States Code
USEPA	US Environmental Protection Agency
USFWS	US Fish and Wildlife Service
VOC	Volatile Organic Compounds
WDID	Waste Discharge Identification

REFERENCES

- BLM (US Department of the Interior Bureau of Land Management). 2005. California Coastal National Monument Resource Management Plan. September. Accessed March 10, 2022. https://eplanning.blm.gov/public_projects/nepa/69063/136143/166398/CCNM_rmp-2005.pdf.
- California Department of Water Resources. 2021. Sustainable Groundwater Management Act. Accessed November 15, 2021. <https://water.ca.gov/programs/groundwater-management/sgma-groundwater-management>.
- California Legislative Information. 2022. SB-846 Diablo Canyon Powerplant: Extension of Operations. Accessed September 27, 2022. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB846
- Caltrans (California Department of Transportation). 2002. Guide for the Preparation of Traffic Impact Studies. December. Accessed January 31, 2022. https://nacto.org/docs/usdg/guide_preparation_traffic_impact_studies_caltrans.pdf.
- _____. 2008. Scenic Highway Guidelines. October. Accessed January 31, 2022. <https://dot.ca.gov/-/media/dot-media/programs/design/documents/scenic-hwy-guidelines-04-12-2012.pdf>.
- _____. 2019a. List of eligible and officially designated State Scenic Highways. August. Accessed December 7, 2021. <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>.
- _____. 2019b. Highway Design Manual Seventh Edition. Accessed January 31, 2022. <https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm>.
- CARB (California Air Resources Board). 2005. Final Regulation Order. Proposed Extension of the California Standards for Motor Vehicle Diesel Fuel to Diesel Fuel Used for Intrastate Diesel Electric Locomotives and Harbor Craft. Accessed January 31, 2022. <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/carblohc/fro.pdf>.
- _____. 2006. Final Regulation Order. Requirements to Reduce Idling Emissions from New and In-Use Trucks, Beginning in 2008. Accessed January 31, 2022. <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/hdvidle/frorev.pdf>.
- _____. 2016. In-Use Off-Road Diesel Vehicle Regulation – Overview, Revised October 2016. Accessed January 31, 2022. http://www.arb.ca.gov/msprog/ordiesel/faq/overview_fact_sheet_dec_2010-final.pdf.
- _____. 2018. Regulation to Establish a Statewide Portable Equipment Registration Program. Effective November 30, 2018. Accessed January 31, 2022. https://ww2.arb.ca.gov/sites/default/files/2020-03/PERP_Reg_12.5.18R.pdf.
- _____. 2019. Truck and Bus Regulation Compliance Requirement Overview. Accessed January 31, 2022. https://ww3.arb.ca.gov/msprog/onrdiesel/documents/fsregsum.pdf?_ga=2.243099393.2082929699.1594836389-995835663.1576187254
- Central Coast RWQCB (Central Coast Regional Water Quality Control Board). 1990. Waste Discharge Requirements for Pacific Gas and Electric Company Diablo Canyon Nuclear Power Plan Units 1 and 2, San Luis Obispo County. Order No. 90-90. NPDES No. CA0003751.

- _____. 2019. Water Quality Control Plan for the Central Coast Basin. June 2019.
- CFGC (California Fish and Game Code). 2021. Fish and Game Code - FGC. Accessed November 15, 2021. <https://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=FGC&tocTitle=+Fish+and+Game+Code+-+FGC>.
- CGS (California Geological Survey). 2008. Guidelines for Evaluating and Mitigating Seismic Hazards in California. Special Publication 117A. Revised and Re-adopted September 11, 2008 by the State Mining and Geology Board in Accordance with the Seismic Hazards Mapping Act of 1990. Accessed January 31, 2022. p. 1. https://www.conservation.ca.gov/cgs/Documents/Program-SHP/SP_117a.pdf.
- FEMA (Federal Emergency Management Agency). 2021. National Flood Insurance Program. Accessed November 15, 2021. <https://www.fema.gov/flood-insurance?web=1&wdLOR=c07C3D5F6-6E56-4B8F-89FA-5D556EDEF016>.
- National Research Council. 2000. (US) Committee to Review Results of ATOC's Marine Mammal Research Program. Accessed December 10, 2021. <https://www.ncbi.nlm.nih.gov/books/NBK225319/>.
- NOAA (National Oceanic and Atmospheric Association). 1972. Marine Mammal Protection Act. Innovative Legislation. Accessed December 10, 2021. <https://www.fisheries.noaa.gov/topic/laws-policies#marine-mammal-protection-act>.
- _____. 1994. Marine Mammal Protection Act. Amendments of 1994. Accessed December 10, 2021. <https://www.fisheries.noaa.gov/topic/laws-policies#marine-mammal-protection-act>.
- NRC (US Nuclear Regulatory Commission). 2019. Backgrounder Tritium, Radiation Protection Limits, and Drinking Water Standards, Office of Public Affairs, Washington, DC. April. Accessed January 31, 2022. <https://www.nrc.gov/docs/ML0620/ML062020079.pdf>.
- SWRCB (State Water Resources Control Board). 2012. Construction Stormwater General Permits. Order 2009-009-DWG. Amended by 2010-0014-DWQ and 202 006-DWQ. Accessed November 15, 2021. https://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.html.
- _____. 2015. Amendment to the Statewide Water Quality Control Plan for the Ocean Waters of California Addressing Desalination Facility Intakes, Brine Discharges, and to Incorporate other Nonsubstantive Changes. Resolution 2015-0033. May 6, 2015.
- _____. 2018. Industrial General Permit. Order 2014-0057-DWQ as Amended in 2015 and 2018. Accessed November 15, 2021. https://www.waterboards.ca.gov/water_issues/programs/stormwater/igp_20140057dwq.html.
- USEPA (US Environmental Protection Agency). 1974. Information on Levels of Environmental Noise Requisite to Protective Public Health and Welfare with an Adequate Margin of Safety. March. Accessed January 31, 2022. <http://www.nonoise.org/library/levels74/levels74.htm>.
- _____. 1999. Control of Emissions of Air Pollution From New Marine Compression-Ignition Engines at or Above 37 kW: Final Rule. Published in the Federal Register, December 29, 1999. 64 FR pp 73300-73373. Accessed January 31, 2022. <https://www.govinfo.gov/content/pkg/FR-1999-12-29/pdf/99-31658.pdf>.
- _____. 2000. Regulatory Announcement: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements. EPA420-F-00-057. December. Accessed January 31, 2022. <https://nepis.epa.gov/Exe/ZyPDF.cgi/P1001CXZ.PDF?Dockey=P1001CXZ.PDF>.

- _____. 2004a. 40 CFR Parts 9, 69, et al., Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel; Final Rule, Published in the Federal Register, Volume 69, Number 124 (Tuesday, June 29, 2004). Accessed January 31, 2022. <https://www.govinfo.gov/content/pkg/FR-2004-06-29/pdf/04-11293.pdf>.
- _____. 2004b. Regulatory Announcement: Clean Air Nonroad Diesel Rule. EPA420-F-04-032. May. Accessed January 31, 2022. <https://nepis.epa.gov/Exe/ZyPDF.cgi/P10001RN.PDF?Dockey=P10001RN.PDF>.
- _____. 2008a. 40 CFR Parts 9, 82, et al. Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression-Ignition Engines Less Than 30 Liters per Cylinder; Republication: Final Rule. Federal Register 37096, Vol. 73, No. 126, June 30, 2008. Accessed January 31, 2022. <https://www.govinfo.gov/content/pkg/FR-2008-06-30/pdf/R8-7999.pdf>.
- _____. 2008b. Regulatory Announcement: EPA Finalizes More Stringent Emissions Standards for Locomotives and Marine Compression-Ignition Engines, EPA-420-F-08-004. March. Accessed January 31, 2022. <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100094D.PDF?Dockey=P100094D.PDF>.