Appendix 4
Environmental Compliance and Permit Summary

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Environmental Compliance

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APPENDIX 4A
Environmental Compliance

This appendix includes information about plans, policies, and regulations that are applicable to the Sites Reservoir Project (Project) and relevant to the environmental impacts evaluated within the resource chapters (i.e., Chapters 6 through 31). It includes identified regulatory requirements that could be applied to the Project.

4A.1 Chapter 6: Surface Water Resources

4A.1.1 Federal Plans, Policies, and Regulations

Safe Drinking Water Act

The Federal Safe Drinking Water Act (SDWA) of 1974, and amendments in 1986 and 1996, directed USEPA to establish national drinking water standards with maximum contaminant levels(MCLs) for a wide variety of constituents and provisions for a mandatory monitoring program for aboveground and underground water sources. The 1996 amendments expanded the focus of the SDWA from primarily treatment to source water protection to reduce contamination in municipal water supplies. The owners or operators of public water systems are required to comply with primary (health-related) MCLs and are encouraged to comply with secondary (nuisance- or aesthetics-related) MCLs.

Federal SDWA standards apply to treated water as it is served to consumers. All surface waters require some form of treatment to meet drinking water standards. The degree of treatment needed depends on the quality of the raw water.[1] The highest quality raw surface waters need only to be disinfected before being served to consumers. More typically, raw water is treated in a conventional water treatment plant that includes sedimentation, filtration, and disinfection processes. Municipal water suppliers prefer raw water sources of high quality because their use minimizes risk to public health and minimizes the cost and complexity of treatment to meet SDWA standards.

Many of the CVP and SWP water users are municipalities that must comply with the SDWA and are concerned about water supply facility operations that may increase the potential for contamination.

CALFED Bay-Delta Implementation

In the August 28, 2000, CALFED Record of Decision (ROD), Reclamation and other federal and State agencies committed to implementing a long-term plan to restore the Bay-Delta. This plan consists of many activities including storage, conveyance, ecosystem restoration, levee integrity, watersheds, water supply reliability, water use efficiency, water quality, water transfers, and science. The Implementation Memorandum of Understanding, also signed August 28, 2000, established the operations decision-making process that had evolved through the CALFED process. The ROD identified numerous programs to provide protection to fish in the Bay-Delta Estuary through environmentally beneficial changes in CVP and SWP pumping operations at no uncompensated water cost to CVP and SWP water users. Subsequently, USFWS and NMFS issued biological opinions related to the coordinated long-term operations of the CVP and SWP under the CALFED ROD and SWRCB D-1641 (described in the

[1] Raw water is untreated water from either a surface water or groundwater source.

following section). Those biological opinions were replaced by subsequent USFWS and NMFS biological opinions, as described above.

Trinity River Mainstem Fishery Restoration

In 1994, USFWS, as the NEPA lead agency, and Trinity County, as the CEQA lead agency, began the public process for developing the Trinity River Mainstem Fishery Restoration EIS/EIR. In December 2000, the Secretary of Interior signed the ROD for a variable annual flow regime, mechanical channel rehabilitation, sediment management, watershed restoration, and adaptive management. Based on the ROD, 368,600 acre-feet to 815,000 acre-feet (depending on water year[2] type) is allocated annually for Trinity River flows. The amount of water released is scheduled in coordination with USFWS to best meet habitat, temperature, and sediment transport objectives in the Trinity River basin.

San Joaquin River Agreement

The 1998 San Joaquin River Agreement (SJRA) was adopted through SWRCB D-1641. It includes a 12-year experimental program providing for flows and Delta exports in the lower San Joaquin River. This study is conducted during a 31-day pulse flow period occurring April to May. The SJRA also provides for the collection of experimental data during that time to further the understanding of the effects of flows, exports, and a barrier at the head of Old River on salmon smolt survival. This experimental program is commonly referred to as the VAMP. The SJRA also provides water for flows at other times on the Stanislaus, Merced, and lower San Joaquin rivers. SJRA established a management and technical committee to oversee, plan, and coordinate implementation of activities required under the agreement. Reclamation, DWR, USFWS, California Department of Fish and Wildlife (CDFW), and NMFS are signatories to the agreement; other signatories include San Joaquin River water rights holders, CVP and SWP water users, and other stakeholders.

4A.1.2 State Plans, Policies, and Regulations

1978 Water Quality Control Plans for the Sacramento/San Joaquin River Delta

In 1975 and 1976, SWRCB adopted the Sacramento–San Joaquin Delta Basin and San Francisco Bay Basin plans, which included water quality standards. These plans formed the basis for the Water Quality Control Plan for the Delta and Suisun Marsh, which was adopted in 1978 (1978 Delta Plan). This plan included salinity objectives in the Delta for protection of agricultural uses. The 1978 Delta Plan considered the need to develop methods to improve circulation and change water rights diversion patterns to protect water quality in the southern Delta. The 1978 Delta Plan presented different water quality and flow criteria based upon water year types, including the Sacramento Valley 40-30-30 Index and San Joaquin Valley 60-20-20 Index.

The Sacramento Valley 40-30-30 Index is computed through a weighted average of:

- The current water year's April through July unimpaired flow[3] forecast in the Sacramento Valley (weighted as 40 percent)

[2] The 12-month period starting October 1 and ending September 30 of the following year in which the surface water supply is quantified. The water year is defined by the year in which it ends (i.e., October 1, 1998, through September 30, 1999, is the 1999 water year).

[3] Unimpaired flow is runoff that would have occurred had water flow remained unaltered in rivers and streams instead of stored in reservoirs, imported, exported, or diverted. The unimpaired flow forecast is the estimate of unimpaired flow that will be available for that water year.

- The current water year's October through March unimpaired flow forecast in the Sacramento Valley (weighted as 30 percent)
- The previous water year's index (a cap of 10.0 million acre-feet is put on the previous year's index to account for required flood control reservoir releases during wet years weighted as 30 percent).

The Sacramento Valley unimpaired flow is a combination of flows for Sacramento River at Bend Bridge near Red Bluff, Feather River inflow to Lake Oroville, Yuba River flows at Smartville, and American River inflow to Folsom Lake. The criteria for water year classifications under the Sacramento Valley 40-30-30 Index are as follows:

- **Wet Year:** Weighted sum greater than or equal to 9,200,000 acre-feet
- **Above Normal Year:** Weighted sum less than 9,200,000 acre-feet and greater than 7,800,000 acre-feet
- **Below Normal Year:** Weighted sum less than 7,800,000 acre-feet and greater than 6,500,000 acre-feet
- **Dry Year:** Weighted sum less than 6,500,000 acre-feet and greater than 5,400,000 acre-feet
- **Critical Year:** Weighted sum equal to or less than 5,400,000 acre-feet

The San Joaquin Valley 60-20-20 Index is computed through a weighted average using:

- The current water year's April through July unimpaired flow forecast (weighted as 60 percent)
- The current water year's October through March unimpaired flow forecast (weighted as 20 percent)
- The previous water year's index with a maximum amount to reflect flood releases in wetter water years (weighted as 20 percent).

The Sacramento Valley unimpaired flow is a combination of flows for Stanislaus River inflow to New Melones Reservoir, Tuolumne River inflow to Don Pedro Reservoir, Merced River inflow to Exchequer Reservoir (Lake McClure), and San Joaquin River inflow to Millerton Lake.

The criteria for water year classifications under the San Joaquin Valley 60-20-20 Index are as follows:

- **Wet Year:** Weighted sum greater than or equal to 3,800,000 acre-feet
- **Above Normal Year:** Weighted sum less than 3,800,000 acre-feet and greater than 3,100,000 acre-feet
- **Below Normal Year:** Weighted sum less than 3,100,000 acre-feet and greater than 2,500,000 acre-feet
- **Dry Year:** Weighted sum less than 2,500,000 acre-feet and greater than 2,100,000 acre-feet
- **Critical Year:** Weighted sum equal to or less than 2,100,000 acre-feet

Update to the Water Quality Control Plan for the San Francisco Bay-Sacramento/ San Joaquin Delta Estuary

SWRCB is conducting a current program to update the Water Quality Control Plan for the San Francisco Bay-Sacramento/San Joaquin Delta Estuary and flow objectives for priority tributaries to the Delta to protect beneficial uses in the Bay-Delta watershed. Under the initial phase (Phase 1), the San Joaquin River flow and southern Delta water quality would be updated. Under Phase 2, other actions to protect beneficial uses (e.g., Delta outflow, Sacramento River flows, Suisun Marsh salinity, Delta Cross Channel gate closure, Delta export limits, and reverse flows in Old and Middle rivers) would be modified. Under Phase 3, related changes to water rights and other measures to implement changes from Phases 1 and 2 would be implemented. Flow objectives for priority Delta tributaries not addressed in Phases 1 through 3 would be modified as necessary. The update to the Water Quality Control Plan is informed by the SWRCB 2010 report *Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem,*

which described providing up to 75 percent of unimpaired flow into the Delta from January through June to improve aquatic resources habitat conditions. However, SWRCB indicated in its cover letter of the 2010 report that determination of flow objectives did not consider the competing needs for water or other public trust resource needs, such as the need to manage cold-water resources in reservoirs upstream of the Delta to protect fisheries.

Delta Protection Act of 1959

The Delta Protection Act (California Water Code §12220) was adopted in 1959 in a coordinated effort to pass legislation that authorized the SWP (Burns-Porter Act of 1959). This legislation incorporated by reference the County of Origin and Watershed Protection acts. It found that maintenance of an adequate water supply in the Delta is necessary for the health, safety, and welfare of the people of the State. An adequate water supply was defined as a supply that is sufficient to maintain and expand agriculture, industry, urban, and recreational development and provides a common source of freshwater for export to areas of water deficiency (frequently referred to as the "Common Pool") in the Delta. The legislation also declared that the Delta must be protected from the effects of tidal salinity and that the CVP and SWP would provide salinity control and adequate water supply for users of water in the Delta. Therefore, the law provided that no person (not only the CVP and SWP) should divert water from Delta channels to which Delta water users are entitled and that the CVP and SWP exports are subject to prior needs of upstream area of origin. However, the legislation did indicate that the Delta obligations were not meant to restrain upstream development. This legislation generally applies to natural flow from the Delta watershed and is not necessarily applied to CVP and SWP stored water releases. The legislation also defined the "Legal Delta" boundaries to include portions of Sacramento, San Joaquin, Yolo, Solano, and Contra Costa counties.

Delta Protection Act of 1992

The Delta Protection Act of 1992 (also known as the Johnston-Baker-Andal-Boatwright Delta Protection Act). declared that the Delta is a natural resource of statewide, national, and international significance, containing irreplaceable resources, and that it is the policy of the State to recognize, preserve, and protect those resources of the Delta for the use and enjoyment of current and future generations, in a manner that protects and enhances the unique values of the Delta as an evolving place. The legislation also established the Delta Protection Commission and defined the Commission's principal jurisdiction over portions of five counties: Contra Costa, Sacramento, San Joaquin, Solano, and Yolo. It was charged with developing a comprehensive regional plan to guide land use and resource management, including wildlife habitat and recreation.

Sacramento-San Joaquin Delta Reform Act of 2009

In November 2009, the State Legislature enacted Senate Bill (SB) X7 1, one of several bills passed at that time related to water supply reliability, ecosystem health, and the Delta. SB X7 1 took effect on February 3, 2010. Division 35 of that legislation, also known as the Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act), requires the development of a legally enforceable, comprehensive, long-term management plan for the Delta and Suisun Marsh, referred to as the Delta Plan. The Delta Stewardship Council was established as an independent State agency by the Delta Reform Act. The Delta Stewardship Council's primary responsibility is to develop, adopt, and implement the Delta Plan to achieve the coequal goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals must be achieved in a manner that

protects and enhances the cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place. Under the Delta Plan, activities that occur in whole or in part of the Delta and Suisun Marsh must be compliant with the Delta Plan.

The Burns-Porter Act

The Burns-Porter Act of 1959, also known as the Water Resources Development Bond Act, authorized the sale of general obligation bonds to finance and develop the initial facilities of the State Water Resources Development System, which are now known as the SWP. The Burns-Porter Act also authorized the State of California to enter into contracts for the sale, delivery, or use of water made available by the State Water Resources Development System.

Suisun Marsh Protection Act and Plan

In 1974, the California Legislature passed the Nejedly-Bagley-Z'berg Suisun Marsh Protection Act (SMPA) of 1974, designed to preserve Suisun Marsh from residential, commercial, and industrial development. The act directed the San Francisco Bay Conservation and Development Commission (BCDC) and CDFW to prepare a protection plan for Suisun Marsh "to preserve the integrity and assure continued wildlife use" of the marsh. The objectives of the protection plan are to preserve and enhance the quality and diversity of the Suisun Marsh's aquatic and wildlife habitats, and to ensure retention of upland areas adjacent to the marsh in uses compatible with its protection.

Suisun Marsh Preservation Agreement

Since the early 1970s, the State Legislature, SWRCB, Reclamation, CDFW, Suisun Resource Conservation District (SRCD), DWR, and other agencies have worked to preserve beneficial uses of Suisun Marsh as mitigation for potential impacts of reduced Delta outflow on Delta salinity. On March 2, 1987, the SMPA (1987) was signed by DWR, Reclamation, CDFW, and SRCD, CVP, and SWP.

The purpose of the SMPA (1987) was to establish mitigation for impacts on salinity from the SWP, CVP, and other upstream diversions. The SMPA (1987) has the following objectives:

- To ensure that Reclamation and DWR maintain a water supply of adequate quantity and quality for managed wetlands within Suisun Marsh to mitigate adverse effects on these wetlands from CVP and SWP operations, as well as a portion of the adverse effects of other upstream diversions.
- To improve Suisun Marsh wildlife habitat on these managed wetlands.
- To define the obligations of Reclamation and DWR necessary to ensure the water supply, distribution, management facilities, and actions necessary to accomplish these objectives.
- To recognize that water users in Suisun Marsh (i.e., existing landowners) divert water for wildlife habitat management within the Suisun Marsh.
- Set a timeline for implementing the Suisun Marsh Protection Plan[4]

[4] The Suisun Marsh Protection Plan was prepared by the San Francisco Bay Conservation and Development Commission and California Department of Fish and Game in 1976. The Plan's objectives are to preserve and enhance the quality and diversity of the Suisun Marsh aquatic and wildlife habitats and to assure retention of upland areas adjacent to the Marsh in uses compatible with its protection.

- Delineate monitoring and mitigation requirements
- Include provisions to recognize water uses in Suisun Marsh and improve wildlife habitat within the marsh

On June 20, 2005, a revised SMPA (1987) was signed to make channel water salinity requirements consistent with SWRCB's Decision 1641 and replace additional large-scale water management facilities with landowner water and management activities to meet the SMPA (1987) objectives in the western portion of Suisun Marsh.

The two primary mechanisms for meeting salinity standards include the implementation and operation of facilities in the marsh and management of Delta outflow. The facilities include the Suisun Marsh Salinity Control Gates (SMSCGs) on Montezuma Slough (initiated in 1988) to restrict high salinity flows from Grizzly Bay into Montezuma Slough during incoming tides and to retain low salinity water, and the Roaring River Distribution System and Morrow Island Distribution System (constructed in 1979 and 1980) to provide low salinity water to a portion of the Suisun Marsh wetlands.

In 2014, Reclamation, CDFW, and USFWS adopted and initiated implementation of the Suisun Marsh Habitat Management, Preservation, and Restoration Plan (Suisun Marsh Management Plan). The following actions will be implemented under the plan:

- Restoration of up to 7,000 acres of tidal marsh and protection and enhancement of up to 46,000 acres of managed wetlands through dredging, erosion protection, and installation of fish screens.
- Increased frequency of implemented managed wetlands activities.
- Implementation of the Preservation Agreement Implementation Fund to improve managed wetland flood and drain capabilities to accommodate high salinity water while maintaining functions and values of managed wetland habitats.

Biological opinions were subsequently issued for the Suisun Marsh Management Plan by USFWS and NMFS.

4A.1.2.2 California Safe Drinking Water Act

In 1976, California enacted its own SDWA, requiring the Department of Public Health Services to regulate drinking water, including setting and enforcing federal and State drinking water standards, administering water quality testing programs, and administering permits for public water system operations. The Federal SDWA allows the State to enforce its own standards in lieu of the federal standards as long as they are at least as protective as the federal standards. Substantial amendments to the California SDWA in 1989 incorporated the new Federal SDWA requirements into California law. California's drinking water standards (e.g., MCLs) are the same or more stringent than the federal standards and include additional contaminants not regulated by USEPA. Like the federal MCLs, California's primary MCLs address health concerns, while secondary MCLs address aesthetics, such as taste and odor. The California SDWA is administered by SWRCB primarily through a permit system.

4A.1.2.3 Safe, Clean, and Reliable Drinking Water Act

In 2009, SB 7X 2 was enacted as the Safe, Clean, and Reliable Drinking Water Supply Act of 2010. This legislation provided for a bond measure to be placed on the November 2010 ballot to issue $11.14 billion to finance a safe drinking water and water supply reliability program. Chapter 8 of the legislation

appropriated $3 billion for the public benefits associated with water storage projects that improve the operation of the State water system, are cost effective, and provide a net improvement in ecosystem and water quality conditions (Section 79740). The projects will be selected by the California Water Commission through a competitive public process. Projects for which the public benefits are eligible for funding include surface storage projects identified in the CALFED Bay-Delta ROD (e.g., Sites Reservoir), groundwater storage projects, groundwater contamination prevention or remediation projects that provide water storage benefits, conjunctive use and reservoir reoperation projects, and local and regional surface storage projects that improve the operation of water systems and provide public benefits. The legislation further states that funds allocated for design, acquisition, and construction of surface storage projects identified in the CALFED Bay-Delta ROD may be provided to local joint powers authorities formed by irrigation districts and other local water districts and local governments within the applicable hydrologic region to design, acquire, and construct those projects (Section 79749). The joint powers authorities may include governmental and nongovernmental partners that are not located within their respective hydrologic regions for the purpose of participation in financing of the local share of the surface storage projects. The legislation required that DWR be an ex-officio member of the joint powers authority, but not control the governance, management, or operation of the surface water storage projects. The joint powers authority must own, govern, manage, and operate the surface water storage project.

4A.2 Chapter 7: Surface Water Quality

4A.2.1 Federal Plans, Policies, and Regulations

4A.2.1.1 Clean Water Act

As discussed in Chapter 4 Environmental Compliance and Permit Summary, the CWA includes multiple provisions. Additional provisions that result in water quality objectives and criteria that could affect or be affected by the Project alternatives are described below.

National Toxics Rule

In 1992, pursuant to the CWA, USEPA promulgated the National Toxics Rule (NTR) to establish water quality criteria for 14 states and 2 territories, including California, that had not complied fully with §303(c)(2)(B) of the CWA. As described in the preamble to the final NTR, when a state adopts water quality criteria consistent with the requirements of §303(c)(2)(B) of the CWA, and USEPA approves, USEPA will issue a rule amending the NTR to withdraw the federal criteria for that state. If the state's criteria are no less stringent than the promulgated federal criteria, USEPA will withdraw its criteria and commence rulemaking without notice because additional comment on the criteria is unnecessary. However, if a state adopts criteria that are less stringent than the federally promulgated criteria, but in USEPA's judgment fully meet the requirements of the CWA, USEPA will provide an opportunity for public comment before withdrawing the federally promulgated criteria. The result is the California Toxics Rule and the §303(d) list of impaired waters.

4A.2.1.2 Federal Antidegradation Policy

The Federal Antidegradation Policy is designed to provide the level of water quality necessary to protect existing uses and provide protection for higher quality and national water resources. The federal policy directs states to adopt a statewide policy that includes the following primary provisions:

1. Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

2. Where the quality of waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

3. Where high quality waters constitute an outstanding national resource, such as waters of national and State parks and wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

4A.2.1.3 Federal Safe Drinking Water Act

The Federal SDWA is described in Section 4A.1. Specifically related to surface water quality, USEPA established the Federal Surface Water Treatment Rule as part of the implementation of the Federal SDWA. The Federal Surface Water Treatment Rule is implemented in the State of California by SWRCB under the California Surface Water Treatment Rule, which satisfies three specific requirements of the Federal SDWA by: (1) establishing criteria for determining when filtration is required for surface waters; (2) defining minimum levels of disinfection for surface waters; and (3) addressing *Cryptosporidium* spp., *Giardia lamblia*, *Legionella* spp., *E. coli*, viruses, turbidity, and heterotrophic plate count by setting a treatment technique. A treatment technique is set in lieu of an MCL for a contaminant when it is not technologically or economically feasible to measure that contaminant.

The 1986 amendments to the Federal SDWA required USEPA to propose a rule for disinfectants and disinfection byproducts. The rule must balance the need for protection from cancer-causing chemicals (byproducts) with the need for protection from pathogenic microbes (bacteria, viruses, and protozoans) that are killed by disinfection. In 1992, USEPA began a rulemaking process called the "Reg-Neg" process. Negotiators in the process included staff members from State and local health and regulatory agencies, elected officials, consumer groups, environmental groups, and representatives from public water systems. The Reg-Neg process resulted in a two-stage approach for regulation development. The Stage 1 Disinfectant and Disinfection Byproduct Rule (DBP Rule) was promulgated in November 1998. Compounds affected under Stage 1 regulations of the DBP Rule include total trihalomethanes, total haloacetic acids, total organic carbon, bromate, chlorine, chloramines, chlorine dioxide, and chlorite.

The Stage 2 of the DBP Rule was promulgated in 2006. This final rule requires systems that deliver disinfected water to meet maximum contaminant levels as an average at each compliance monitoring location (instead of as a systemwide average as in previous rules) for two groups of DBPs, trihalomethanes and five haloacetic acids. The rule targets systems with the greatest risk and builds incrementally on existing rules. The rule also contains a risk-targeting approach to better identify monitoring sites where customers are exposed to high levels of DBPs.

4A.2.1.4 Ambient Water Quality Criteria Recommendations for Rivers and Streams in Nutrient Ecoregion

Ecoregional nutrient criteria are developed to represent surface waters that are minimally impacted by human activities and thus protect against the adverse effects of nutrient over-enrichment from cultural eutrophication. USEPA's recommended process for developing such criteria includes physical classification of waterbodies, determination of current reference conditions, evaluation of historical data and other information (such as published literature), use of models to simulate physical and ecological processes or determine empirical relationships among causal and response variables (if necessary), expert judgment, and evaluation of downstream effects. USEPA has used elements of this process to produce the information contained in this document. The causal (total nitrogen, total phosphorus) and biological and physical response (chlorophyll *a*, turbidity) variables represent a set of starting points for states and tribes to use in establishing their own criteria. Criteria have specifically been developed for Nutrient Ecoregion I, which includes the Willamette Valley in Oregon and Washington and the Central Valley in California.

4A.2.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to surface water are discussed in Chapter 4 Environmental Compliance and Permit Summary, in addition to the following items.

4A.2.2.1 Water Quality Regulations Implemented by SWRCB

California Water Code, Section 13160

California Water Code, Section 13160, authorizes SWRCB to act as the State water pollution control agency for compliance with Section 401 of the CWA. For an activity that may result in any discharge into navigable waters, Section 401 of the federal CWA requires a federal license or permit applicant to provide to the licensing or permitting agency a certification from the state in which the discharge originates that any such discharge will comply with state water quality standards and other appropriate requirements. SWRCB administers the Section 401 program. Section 401 requires SWRCB to find that there is a reasonable assurance that an activity will be conducted in a manner that will not violate applicable water quality standards and other appropriate requirements. Certification may be conditioned with other limitations to comply with CWA provisions.

California Antidegradation Policy

The California Antidegradation Policy, formally known as the *Statement of Policy with Respect to Maintaining High Quality Waters in California* (SWRCB Resolution No. 68-16), restricts degradation of surface and ground waters. In particular, this policy protects water bodies where existing quality is higher than necessary for the protection of beneficial uses. Pursuant to the Antidegradation Policy, any actions that can adversely affect water quality in all surface and ground waters must (1) be consistent with maximum benefit to the people of the state, (2) not unreasonably affect present and anticipated beneficial use of the water, and (3) not result in water quality less than that prescribed in water quality plans and policies.

Central Valley Regional Water Quality Control Board Drinking Water Policy

A multi-year effort is underway to develop a drinking water policy for surface waters in the Central Valley. As water flows out of the sierra foothills and into the valley, pollutants from a variety of urban, industrial, agricultural, and natural sources affect the quality of water, which leads to drinking water

treatment challenges and potential public health concerns. Existing policies and plans lack water quality objectives for several known drinking water constituents of concern, such as disinfection byproduct precursors and pathogens, and do not include implementation strategies to provide effective source water protection. SWRCB and the Central Valley RWQCB committed to development of the policy in Resolution R5-2004-0091 and later in Resolution R5-2010-0079. Resolution R5-2010-0079 also documented progress to date, provided direction for future actions, and set deadlines for interim deliverables associated with policy development by July 2013. This drinking water policy will apply to Delta water and any activities that affect Delta water quality.

California Toxics Rule

The Policy for Implementing Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California is referred to as the State Implementation Policy. This State policy for water quality control, adopted by SWRCB on March 2, 2000, and effective by May 22, 2000, applies to discharges of toxic pollutants into the inland surface waters, enclosed bays, and estuaries of California subject to regulation under the State's Porter-Cologne Act (Division 7 of the California Water Code) and the federal CWA. Such regulation may occur through the issuance of NPDES permits or other relevant regulatory approaches. The policy establishes: (1) implementation provisions for priority pollutant criteria promulgated by USEPA through the National Toxics Rule (40 CFR 131.36) (promulgated on December 22, 1992, and amended on May 4, 1995) and through the California Toxics Rule (40 CFR 131.38) (promulgated on May 18, 2000, and amended on February 13, 2001) and for priority pollutant objectives established by the RWQCBs in their water quality control plans; (2) monitoring requirements for 2,3,7,8-tetrachlorodibenzodioxin equivalents; and (3) chronic toxicity control provisions. In addition, this policy includes special provisions for certain types of discharges and factors that could affect the application of other provisions in the policy.

The California Toxics Rule is applicable to all State waters, as are the USEPA advisory National Recommended Water Quality Criteria. Central Valley and Delta areas are subject to the 2006 Bay-Delta Water Quality Control Plan and the Central Valley, Tulare Basin, and San Francisco Bay regional plans. Freshwater criteria apply to waters of salinity less than 1 part per thousand 95 percent or more of the time, seawater criteria apply to waters of salinity greater than 10 parts per thousand 95 percent or more of the time, and estuarine waters use the more stringent of the two possible criteria, in absence of estuary-specific criteria.

Long-term Irrigated Lands Regulatory Program

SWRCB and the RWQCBs implement the Irrigated Lands Regulatory Program to regulate discharges to prevent agricultural runoff from impairing surface waters. To protect these waters, SWRCB and the RWQCBs issue conditional waivers of waste discharge requirements to growers that contain conditions requiring water quality monitoring of receiving waters and corrective actions when impairments are found.

Central Valley Salinity Alternatives for Long-term Sustainability (CV-SALTS)

In 2006, the Central Valley RWQCB, SWRCB, and stakeholders began a joint effort to address salinity and nitrate problems in the Central Valley and adopt long-term solutions that will lead to enhanced water quality and economic sustainability. This effort is referred to as the CV-SALTS Initiative. The goal of CV-SALTS is to develop a comprehensive regionwide Salt and Nitrate Management Plan (SNMP) describing a water quality protection strategy that will be implemented through a mix of voluntary and

regulatory efforts. The SNMP may include recommendations for numeric water quality objectives, beneficial use designation refinements, and/or other refinements, enhancements, or basin plan revisions. The SNMP will serve as the basis for amendments to the three basin plans that cover the Central Valley Region (the Sacramento River and San Joaquin River Basin Plan, the Tulare Lake Basin Plan, and the Sacramento/San Joaquin Rivers Bay-Delta Plan). The Basin Plan amendments will likely establish a comprehensive implementation plan to achieve water quality objectives for salinity (including nitrate) in the region's surface waters and groundwater.

4A.3 Chapter 8: Fluvial Geomorphology and Riparian Habitat

4A.3.1 Federal Plans, Policies, and Regulations

Federal plans, policies, and regulations applicable to fluvial geomorphology and riparian habitat are discussed in Section 4A.1.

4A.3.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to fluvial geomorphology and riparian habitat are discussed in Section 4A.1 in addition to the following item.

4A.3.2.1 Senate Bill 1086

SB 1086 created the Sacramento River Conservation Area Advisory Council. The legislation required the development of a Sacramento River management plan which promotes the protection, restoration, and enhancement of both fisheries and riparian habitat while ensuring that other community needs are met, including agricultural production, public safety, public and private infrastructure, economic stability, and public recreation. The plan, the Upper Sacramento River Fisheries and Riparian Habitat Management Plan, was published in 1989. The Salmon, Steelhead Trout, and Anadromous Fisheries Program Act

4A.4 Chapter 9: Flood Control and Management

4A.4.1 Federal Plans, Policies, and Regulations

4A.4.1.1 Executive Order 11988, Floodplain Management

Executive Order (EO) 11988 requires federal agencies to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, “each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities” for the following actions:

- Acquiring, managing, and disposing of federal lands and facilities
- Providing federally undertaken, financed, or assisted construction and improvements
- Conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities

4A.4.1.2 Flood Programs and Regulations Implemented by the Federal Emergency Management Agency

National Flood Insurance Program

The National Flood Insurance Program (NFIP) is administered primarily under two statutes: the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The Federal Insurance Administration under FEMA administers NFIP. NFIP has two main components: (1) floodplain management assistance and (2) flood insurance assistance. The purpose of flood insurance is to enable property owners to purchase insurance against losses from physical damage or the loss of buildings and their contents caused by floods, flood-related mudslides, or erosion. Insurance is available to property owners belonging to NFIP-participating communities. Participation in NFIP also makes communities eligible for federal flood disaster assistance. For a community to be eligible to participate in NFIP, the community must adopt a local floodplain management ordinance that meets or exceeds the minimum federal standards defined in 44 CFR 60 to 65. Participating communities must adhere to all floodplain management requirements, with oversight from FEMA, for all activities that may affect floodplains within the Special Flood Hazard Areas (SFHA).

Flood Zone Regulations

SFHAs are subject to federal and State requirements, which are defined primarily by federal regulations at 44 CFR 60.3 and 44 CFR 65.12. The first citation requires the following:

These federal regulations are intended to address the need for effective floodplain management and provide assurance that the cumulative effects of floodplain encroachment do not cause more than a one 1-foot rise in water surface elevation after the floodplain has been identified on the FIRM (local flood ordinances can set a more stringent standard). The absence of a detailed study or floodway delineation places the burden on the project proponent to perform an appropriate engineering analysis to prepare hydrologic and hydraulic analyses consistent with FEMA standards. These analyses would then be used to evaluate the proposed project together "with all other existing and anticipated development." Defining future anticipated development is difficult. The purpose of this requirement is to avoid inequitable encroachments into the floodplain.

FEMA Levee Design and Maintenance Regulations

For levees to be accredited by FEMA, and to allow communities to participate in Preferred Risk programs of NFIP, evidence must be provided that adequate design, operation, and maintenance systems are in place to provide reasonable assurance that protection from the base flood (one percent annual chance of exceedance or 100-year flood) exists. These requirements are outlined in 44 CFR, Volume 1, Chapter I, Part 65.10 for freeboard, closure of devices in the levees (e.g., intakes), embankment protection and foundation stability, settlement, interior drainage on the landside of the levee, and operation and maintenance plans for the levees.

Federal Emergency Management Agency 100-year Protection Standard

The FEMA 100-year Protection Standard, often called the one 1 percent annual chance flood level of protection, is based on criteria established in the CFR and is often used with established USACE criteria to meet certain freeboard, slope stability, seepage/under-seepage, erosion, and settlement requirements. Numerical hydrologic models are used to project surface water elevations at different locations in the rivers for the statistically probable 100-year flood event. Model runs are updated periodically to reflect

changes in river bathymetry and historical hydrology. Meeting this level of flood protection means that communities will not require mandatory purchase of flood insurance for houses in the floodplain or be subject to building restrictions. This standard generally does not address seismic stability. FEMA 100-year criteria are based on historical conditions and do not include considerations for climate change or sea level rise. FEMA is completing a study on the *Impact of Climate Change on the National Flood Insurance Program* to determine how to accommodate these factors and the long-term implications.

4A.4.1.3 Regulations Implemented by the U.S. Army Corps of Engineers

The following discussion provides an overview of USACE's regulatory responsibilities that apply to navigable waters and construction within the ordinary high water mark of other waters of the U.S. In addition, USACE constructs flood control and risk management projects and monitors their operations and maintenance. It also provides emergency response to floods. These functions are described below.

1936 Flood Control Act

USACE constructs local flood control and risk management projects and navigation projects. The Flood Control Act of 1936 established a nationwide policy that flood control on navigable waters or their tributaries is in the interest of the general public welfare and is, therefore, a proper activity of the federal government in cooperation with states and local entities. The 1936 Flood Control Act, its amendments, and subsequent legislation specify details of federal participation. Projects are either specifically authorized through legislation by Congress or through a small projects blanket authority. Typically, a feasibility study is done to determine federal interest before authorization or construction.

U.S. Army Corps of Engineers Rehabilitation and Inspection Program

The Rehabilitation and Inspection Program is a USACE program that provides for the inspection of flood-control projects, the rehabilitation of damaged flood-control projects, and the rehabilitation of federally authorized and constructed hurricane or shore-protection projects. Levees in the program are eligible for federally funded repair and rehabilitation for damage induced by flood events, provided funding is available. The project levees (those levees previously authorized or constructed under a federal flood-control project) are eligible for the program as long as the non-federal sponsor maintains the levees to certain federal standards. Repairs and rehabilitation are accomplished under provisions of Public Law 84-99, with some cost-sharing normally required for non-project levees. Non-project levees are managed and maintained by local districts, as opposed to project levees, which are part of a larger regional or State project, and managed and maintained by a federal or State agency.

For non-project levees in the Delta to be eligible, the local maintaining agency must first apply for participation into the program. To be admitted, the levees must meet certain requirements, be maintained to federal levee standards, and pass a rigorous initial inspection. They must also pass subsequent routine inspections to remain in the program. Very few levees in the central Delta meet these standards or pass the initial inspections. Remaining in the program will be more challenging in the future, even for project levees, because USACE has begun enforcing more stringent vegetation standards that call for no woody vegetation on levees or within 15 feet of levees. These standards may also affect the design of habitat restoration projects on the water side of existing levees.

Operations and Maintenance Controls, Flood Control Projects

The maintenance and operation of federal project levee structures is discussed in 33 CFR 208.10. According to these regulations, no improvement shall be passed over, under, or through the walls, levees, improved channels, or floodways, nor shall any excavation or construction be permitted within the limits of the project right-of-way, nor shall any change be made in any feature of the works without prior determination by the District Engineer of the Department of the Army or his or her authorized representative that such improvement, excavation, construction, or alteration will not adversely affect the function of the protective facilities. This regulation is the basis for requiring a permit prior to any construction at federal project levees. Types of alterations/modifications typically covered by a CFR 208 permit include bridges, pump houses, stairs, pipes, bike trails, and power poles.

Sacramento River Bank Protection Project

As authorized by the Flood Control Act of 1970, the Sacramento River Bank Protection Project (SRBPP) is an ongoing construction and maintenance project. The SRBPP provides protection for existing flood control infrastructure, including levees, of the Sacramento River Flood Control Project.

4A.4.2 State Plans, Policies, and Regulations

4A.4.2.1 Programs Implemented by the Department of Water Resources

DWR's mission is to manage the State's water resources, in cooperation with other agencies, to benefit the public and to protect, restore, and enhance the natural and human environments. Within this mission, DWR's goal, as related to flood, is to "protect public health, life, and property by regulating the safety of dams, providing flood protection, and responding to emergencies." DWR meets these responsibilities through the following activities (DWR website and California Water Code Section 6000):

- Supervising design, construction, enlargement, alteration, removal, operation, and maintenance of more than 1,200 jurisdictional dams
- Encouraging and regulating preventive floodplain management along Central Valley floodways
- Maintaining and operating specified Central Valley flood control facilities
- Maintaining the State-Federal Flood Operations Center and the Eureka Flood Center to provide flood advisory information to other agencies and the public

DWR also owns and operates dams on the Feather River, and these multipurpose facilities provide water supply, hydroelectric, flood control, recreation, fish and wildlife, and other benefits. DWR consults with Reclamation and USACE for reservoir operations to comply with flood management objectives at these reservoirs.

Department of Water Resources' Flood SAFE California Initiative

In January 2005, Governor Arnold Schwarzenegger called for improved maintenance, system rehabilitation, effective emergency response, and sustainable funding to lower flood risks in California. In 2006, DWR launched FloodSAFE California, a multifaceted program to improve public safety through integrated flood management. Water Code Section 9602 (added by SB 5) requires a minimum level of flood protection for urban areas in the Sacramento and San Joaquin river watersheds. These areas must be able to withstand flooding that has a one-in-200 annual chance of occurrence. State Propositions 1E

and 84, with legislative direction, allocated 67 percent of FloodSAFE funds to the Central Valley and Delta for repairs and improvements to levees and flood projects. FloodSAFE goals include reducing the frequency and size of flooding of communities, reducing the consequences of flooding, and protecting and enhancing ecosystems.

The State Plan of Flood Control Descriptive Document

DWR completed the State Plan of Flood Control (SPFC) Descriptive Document (November 2010) to meet the legislative requirements of California Water Code §9614, in part, for the Central Valley Flood Protection Plan (CVFPP). The SPFC Descriptive Document provides the first complete inventory and description of the SPFC as defined in §9110(f) of the California Water Code:

> *"State Plan of Flood Control" means the State and federal flood control works, lands, programs, plans, conditions, and mode of maintenance and operations of the Sacramento River Flood Control Project described in §8350, and of flood control projects in the Sacramento River and San Joaquin River watersheds authorized pursuant to Article 2 (commencing with §12648) of Chapter 2 of Part 6 of Division 6 for which the board or the department has provided the assurances of nonfederal cooperation to the United States, and those facilities identified in §8361."*

The State-federal flood protection system comprises federally and State-authorized projects for which the CVFPB or DWR has provided assurances of cooperation to the United States federal government. These CVFPB- or DWR-provided assurances, coupled with State authorization, are an important distinction for what constitutes the State-federal flood protection system. Other flood protection facilities in the Sacramento River and San Joaquin River watersheds that are not covered by assurances to the federal government from the CVFPB or DWR are not part of the State-federal flood protection system or SPFC, but are included in the Sacramento-San Joaquin River Flood Management System defined in the California Water Code §9611.

Sacramento River Flood Control Project

The Sacramento River Flood Control Project (SRFCP) is composed of six interrelated projects undertaken by USACE and operated by DWR, including reservoirs constructed on major rivers, which constitute the largest flood control system in the State. Project facilities extend from north of Colusa County southward to the Sacramento-San Joaquin Delta, approximately 230 miles along the Sacramento River corridor. Levees and associated facilities of the SRFCP have been constructed along 5 rivers, 15 creeks, and 13 sloughs. In addition, constructed facilities include 6 bypasses and 11 channels.

Senate Bill 5

SB 5, signed into law in October 2007, updates the California Health and Safety Code to require DWR to propose updated requirements to the California Building Standards Code. The requirements proposed for adoption and approval by the California Building Standards Commission would be for construction in areas protected by the facilities of the CVFPP where flood levels are anticipated to exceed 3 feet for the 200-year flood event. Before DWR proposes the amendments to the California Building Standards Code, the Department is to consult with the CVFPB, the Division of the State Architect, and the Office of the State Fire Marshal.

4A.4.2.2 Assembly Bill 162

Assembly Bill (AB) 162 requires the land use element of the general plan of any city or county located within the boundaries of the Sacramento-San Joaquin Drainage District to identify and annually review those areas covered by the general plan that are subject to flooding as identified by flood plain mapping prepared by FEMA or DWR. The bill also requires, upon the next revision of the housing element, on or after January 1, 2009, the conservation element of the general plan to identify rivers, creeks, streams, flood corridors, riparian habitat, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

This bill also requires, upon the next revision of the housing element, on or after January 1, 2009, the safety element to identify, among other things, information regarding flood hazards and to establish a set of comprehensive goals, policies, and objectives, based on specified information for the protection of the community from, among other things, the unreasonable risks of flooding.

Assembly Bill 1200

AB 1200 highlights the complex Delta water issues. AB 1200 amends Section 139.2 of the California Water Code as follows: "The department shall evaluate the potential impacts on water supplies derived from the Delta based on 50-, 100-, and 200-year projections for each of the following possible impacts on the Delta: subsidence; earthquakes; floods; changes in precipitation, temperature, and ocean levels; or any combination of these impacts."

AB 1200 directs DWR and CDFW to report to the Legislature and Governor on the potential impacts of levee failures on Delta water supplies, options to reduce the impacts of these factors, and options to restore salmon and other fisheries that use the Delta estuary.

In response to AB 1200, DWR and CDFW have issued the report *Risks and Options to Reduce Risks to Fishery and Water Supply Uses of the Sacramento/San Joaquin Delta*, dated January 2008. That report summarizes the potential risks to water supplies in the Sacramento-San Joaquin Delta attributable to future subsidence, earthquakes, floods, and climate change and identifies improvements to reduce the impacts and options to deliver water.

4A.4.2.3 Other California Water Code Provisions Related to Flood Management

The Senate and Assembly bills identified above have resulted in various changes and additions to the California Water Code, including Section 8609. Section 8609 states that the board may designate floodways throughout the Sacramento and San Joaquin rivers drainage to control encroachments in, and to preserve the flow regimens of, floodways for the purpose of protecting public improvements, lives, land use values, and improvements created in reliance upon historical flooding patterns. "Sacramento and San Joaquin Rivers drainage," or equivalent language, means all lands currently and historically drained by the Sacramento River and the San Joaquin River and their tributaries and distributaries.

California Water Code, Division 3: Dams and Reservoirs requires DWR's Division of Safety of Dams (DSOD) to supervise the construction, maintenance, and operation of dams and reservoirs to safeguard life and property from injury due to failure. The code section further requires DWR to evaluate the possibility that a dam or reservoir might be endangered due to seepage, earth movement or other conditions and to require the dam or reservoir owner to take appropriate actions to remove the danger to life and property. Federally owned dams and reservoirs are not under State jurisdiction, except as noted under federal law.

4A.4.3 Regional and Local Plans, Policies, and Regulations

4A.4.3.1 Glenn County

Glenn County General Plan

Section 5.25 of the Glenn County General Plan identifies the following policies to address potential flood hazards:

- Recognize the special status of lands located within the designated floodways adopted by the State Reclamation Board.
- Support efforts to revise the FEMA FIRMs for the areas around Hamilton City, Willows, and Orland in order to improve their accuracy.
- Endeavor to avoid areas subject to flooding when considering approval of new development.
- Require the installation of storm drain and other flood protection/prevention improvements as a condition of all new development approvals.
- Encourage the formation of a countywide service area or individual storm drain maintenance districts to finance and construct needed flood control improvements.

4A.4.3.2 Colusa County

Colusa County General Plan

The Colusa County General Plan identifies the following policies related to flood protection:

- **SAFE-1:** Floodplains should generally be maintained as open space. In these areas, their use for agriculture, recreation, preservation of vegetation and wildlife habitat, and scenery should be encouraged.
- **SAFE-2:** Urban development should be discouraged in the 100-year floodplain. Any habitable structure which is permitted shall be built so that the first floor of living area is above the 100-year flood elevation.
- **SAFE-3:** No critical or high-occupancy structures such as schools, hospitals, police, facilities, or fire stations should be built within the 100-year floodplain.
- **SAFE-4:** The County should support coordinated efforts to maintain levees along the Sacramento River and the 2047 canal.
- **SAFE-5:** Flood control policies in the Community Services Element should be supported to reduce the hazards associated with flooding.

Colusa County Code, Chapter 33: Flood Damage Prevention

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- Protect human life and health;
- Minimize expenditure of public money for costly flood control projects;

- Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- Minimize prolonged business interruptions;
- Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and streets and bridges located in areas of special flood hazard;
- Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blighted areas caused by flood damage,
- Ensure that potential buyers are notified that property is in an area of special flood hazard; and
- Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

To accomplish its purposes, this section includes methods and provisions to:

- Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- Control filling, grading, dredging, and other development which may increase flood damage;
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters; and
- Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

A development permit shall be obtained before any construction or other development begins within any area of special flood hazard established in Section 33-3.2. Application for a development permit shall be made on forms furnished by the floodplain administrator and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:

- Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures in zone A, elevation of highest adjacent grade and proposed elevation of lowest floor of all structures; or
- Proposed elevation in relation to mean sea level to which any nonresidential structure will be flood-proofed, if required in Subsection 33-5.1(C)(3); and
- All appropriate certifications listed in Subsection 33.4.3(d) of this chapter; and
- Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

Colusa County Flood Control and Conservation District

The Colusa County Flood Control and Conservation District (District) is overseen by the County Board of Supervisors. The purpose of the District is to plan and obtain funding for flood control activities, measures, and projects within the County.

Colusa County Floodplain Administrator

The Colusa County Director of Public Works is appointed to administer, implement and enforce Chapter 33 (Flood Damage Prevention) of the Colusa County Code regulations relating to flood management.

The floodplain administrator must:

- Review all development permits to determine that all county, State, and federal permits have been obtained; that a development site is reasonably safe from flooding, and that the proposed development will not adversely alter existing base flood elevations
- Review other base flood data obtained from a federal, State, or other source before its use, and must submit the additional base flood data to the county for adoption
- Notify adjacent communities, DWR, the Federal Insurance Administration, and FEMA prior to the alteration or relocation of a watercourse
- Certify, maintain, and make available to the public documentation of floodplain development including lowest floor elevations and pad elevations for proposed structures, flood-proofing of non-residential structures, and floodway encroachments
- Make flood hazard map boundary location determinations

The floodplain administrator has the authority to take action to remedy code violations and to decide appeals regarding the enforcement and administration of Chapter 33 codes.

4A.5 Chapter 10: Groundwater Resources

4A.5.1 Federal Plans, Policies, and Regulations

Federal plans, policies, and regulations applicable to groundwater are discussed in Sections 4A.1 and 4A.2. These regulations were not specifically promulgated to protect or administer regulations related to groundwater. However, their implementation may directly or indirectly affect groundwater conditions.

4A.5.2 State Plans, Policies, and Regulations

California does not regulate the overall use, entitlement, and management of groundwater. Although statewide groundwater regulations have been considered several times in the past, the California Legislature considers groundwater management to be a local responsibility. Several State regulations do specifically address groundwater, and others include groundwater among other physical units, such as surface water. Most of the regulations that include groundwater among other regulated entities are presented in other sections of this chapter. State regulations that specifically address groundwater as primary objectives or as a major component of objectives or criteria are presented below.

4A.5.2.1 Area of Origin Statute Limitations (California Water Code 1220)

California Water Code 1220 prohibits the pumping of groundwater "for export within the combined Sacramento and Delta-Central Sierra Basins…unless the pumping is in compliance with a groundwater management plan that is adopted by [county] ordinance." The statute enables, but does not require, the board of supervisors of any county within any part of the combined Sacramento and Delta-Central Sierra Basin to adopt groundwater management plans (GWMPs).

4A.5.2.2 Groundwater Management (Assembly Bill 3030)

AB 3030 (1992) enables local water agencies to develop and implement GWMPs to manage the groundwater resources in the jurisdiction of the participating parties. The State does not maintain a statewide program or mandate its implementation, but the legislation provides the guidelines and common framework through which groundwater management can be implemented. Groundwater management legislation was amended in 2002 with the passage of SB 1938, which provided additional groundwater management components supporting eligibility to obtain public funding for groundwater projects. In 2000, AB 3030 enabled the development of the Local Groundwater Assistance Grant Program which provides financial support to local public agencies that are developing groundwater management and monitoring programs in their area.

4A.5.2.3 California Statewide Groundwater Elevation Monitoring Program

SB X7 6, enacted in November 2009, mandates a statewide groundwater elevation monitoring program to track seasonal and long-term trends in groundwater elevations in California's groundwater basins. This amendment to the California Water Code requires the collaboration between local monitoring entities and DWR to collect groundwater elevation data. To achieve this goal, DWR developed the California Statewide Groundwater Elevation Monitoring (CASGEM) Program to establish a permanent, locally managed program of regular and systematic monitoring in all of the State's alluvial groundwater basins.

The law requires that local agencies monitor and report the elevation of their groundwater basins. DWR is required by the law to establish a priority schedule for monitoring groundwater basins and to report to the State Legislature on the findings from these investigations (California Water Code Section 10920 et seq.). DWR is developing an online system for a monitoring entity to submit groundwater elevation data, which will be compatible with DWR's Water Data Library.

4A.5.2.4 Sustainable Groundwater Management Act

In September 2014, the Sustainable Groundwater Management Act (SGMA) was enacted. The SGMA establishes a new structure for locally managing California's groundwater in addition to existing groundwater management provisions established by AB 3030 (1992), SB 1938 (2002), AB 359 (2011), and SB X7 6 (2009).

The SGMA includes the following key elements:

- Provides for the establishment of a Groundwater Sustainability Agency (GSA) by one or more local agencies overlying a designated groundwater basin or subbasin, as established by DWR Bulletin 118-03.
- Requires all groundwater basins found to be of "high" or "medium" priority to prepare Groundwater Sustainability Plans (GSPs).

- Provides for the proposed revisions, by local agencies, to the boundaries of a DWR Bulletin 118 basin, including the establishment of new subbasins.
- Provides authority for DWR to adopt regulations to evaluate GSPs and review the GSPs for compliance every 5 years.
- Requires DWR to establish best management practices and technical measures for GSAs to develop and implement GSPs.
- Provides regulatory authorities for SWRCB for developing and implementing interim GWMPs under certain circumstances (e.g., lack of compliance with development of GSPs by GSAs).

The SGMA defines sustainable groundwater management as "the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results." Undesirable results are defined as any of the following effects:

- Chronic lowering of groundwater levels (not including overdraft during a drought if a basin is otherwise managed).
- Significant and unreasonable reduction of groundwater storage.
- Significant and unreasonable seawater intrusion.
- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies.
- Significant and unreasonable land subsidence that substantially interferes with surface land uses.
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

The SGMA requires the formation of GSPs in groundwater basins or subbasins that DWR designates as medium or high priority based upon groundwater conditions identified using the CASGEM results by 2022. Sustainable groundwater operations must be achieved within 20 years following completion of the GSPs.

4A.5.3 Regional and Local Plans, Policies, and Regulations

4A.5.3.1 Glenn County

Glenn County has adopted County Code Title 20, which includes the provision Water 20.030: Groundwater Coordinated Resource Management Plan. This provision provides for groundwater basin management objectives and a monitoring network to detect changes in groundwater level, quality, and land subsidence. This provision also requires the Glenn County plan to define acceptable ranges of groundwater levels. The Glenn County groundwater management area includes areas of the county where irrigated agriculture is conducted, which is subdivided into 17 sub-areas and managed by individual sub-area, rather than at a countywide level. The Glenn County GWMP is based on established basin management objectives for minimum groundwater levels, minimum water quality, and maximum inelastic subsidence.

Glenn County Code Title 20 provision Water 20.080: Water Well Drilling Permits and Standards provides standards for well construction in Glenn County.

4A.5.3.2 Colusa County

Colusa County has adopted County Code Chapter 43: Groundwater Management, which requires a separate permit for groundwater extraction if the groundwater is to be conveyed to users located outside of Colusa County. The Colusa County GWMP describes the groundwater management goals, basin management objectives, specific actions that will be implemented to manage groundwater resources, and a detailed groundwater management process that will be followed to achieve the groundwater management goals at a countywide level. The plan is intended to be implemented in concert with the adopted GWMPs of existing water and irrigation districts, reclamation districts, cities, and public utility districts.

Colusa County Code Chapter 35: Well Standards provides standards for well construction in Colusa County.

4A.6 Chapter 11: Groundwater Quality

4A.6.1 Federal Plans, Policies, and Regulations

Federal plans, policies, and regulations applicable to groundwater quality are discussed in Sections 4A.1, 4A.2, and 4A.5.

4A.6.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to groundwater quality are discussed in Sections 4A.1, 4A.2, and 4A.5 in addition to the following items.

4A.6.2.1 California Code of Regulations – Underground Storage Tanks and Oil or Gas Wells

Title 23, Division 3, Chapter 16, Article 7 of the California Code of Regulations (CCR) describes the underground storage tank closure requirements which shall be accomplished in order to protect water quality. The requirements for permanent closure in place or removal apply to those underground storage tanks in which the storage of hazardous substances has ceased and tanks will not be used, or are not intended for use, for the storage of hazardous substances within the next 12 consecutive months.

Title 14, Division 2, Chapter 4, Article 3 of the CCR describes the rules and regulations governing the environmental protection measures that shall be taken when plugging and abandoning oil or gas wells. Requirements include the removal of all tanks, above-ground pipelines, debris, and other facilities and equipment.

4A.6.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to groundwater quality are discussed in Section 4A.5.

4A.7 Chapter 12: Aquatic Biological Resources

4A.7.1 Federal Plans, Policies, and Regulations

4A.7.1.1 U.S. Fish and Wildlife Service Recovery Plan for Sacramento-San Joaquin Delta Native Fishes

The Recovery Plan for the Sacramento-San Joaquin Delta Native Fishes, released in 1996, addresses the recovery needs for several fishes that occupy the Sacramento-San Joaquin Delta, including delta smelt, Sacramento splittail, longfin smelt, green sturgeon, Chinook salmon (spring-run, late fall-run, and San Joaquin fall-run), and Sacramento perch (believed to be extirpated). The basic goal of the plan is to establish self-sustaining populations of these species. The purpose and scope of the plan is to outline a strategy for the conservation and restoration of the Sacramento-San Joaquin Delta that supports or has the potential to support Delta native fishes. This objective would be accomplished by managing the estuary to provide better habitat for aquatic life in general and for the fish addressed by the plan. Recovery actions include tasks such as increasing freshwater flows; reducing fish entrainment losses to water diversions; reducing the effects of dredging, contaminants, and harvest; developing additional shallow-water habitat, riparian vegetation zones, and tidal marsh; reducing effects of toxic substances from urban nonpoint sources; reducing the effects of introduced species; and conducting research and monitoring.

Since the Recovery Plan for Sacramento-San Joaquin Delta Native Fishes was released in 1996, new information regarding the status, biology, and threats to Delta native species has emerged. Ongoing revision of the plan will review the new information and develop a strategy for the conservation and restoration of Delta native fish through the identification of recovery actions that specifically address the threats to their existence.

4A.7.1.2 National Marine Fisheries Service Recovery Planning for Salmon and Steelhead in California

In the Central Valley, NMFS is responsible for facilitating the development of recovery plans for:

- The Sacramento River Winter-run Chinook Salmon ESU[5]
- The Central Valley Spring-run Chinook Salmon ESU
- Central Valley Steelhead DPS
- The Southern DPS of North American Green Sturgeon

The California Central Valley Recovery Domain[6] extends from the upper Sacramento River Valley to the northern portion of the San Joaquin River Valley. The 2014 recovery plan for the ESUs of Sacramento River winter-run Chinook salmon and Central Valley spring-run Chinook salmon and the DPS of Central Valley steelhead describes the steps, strategy, and actions recommended to return winter-run Chinook salmon, spring-run Chinook salmon, and steelhead to viable status in the Central Valley, thereby ensuring their long-term persistence and evolutionary potential.

For the Central Valley Chinook salmon ESUs and the steelhead DPS to achieve recovery, the recovery strategy is focused on two principles: (1) Functioning, diverse, and interconnected habitats are necessary

[5] Evolutionary significant unit - a population of organisms that is considered distinct for the purpose of conservation. This term is functionally the same as a distinct population segment, but this term is primarily used by USFWS.

[6] California Central Valley Recovery Domain extends from the upper Sacramento River Valley to the northern portion of the San Joaquin River Valley.

for a species to be viable; and (2) Species viability is determined by spatial structure, diversity, productivity, and abundance.

NMFS initiated preparation of recovery plan in 2010 for the Southern DPS of North American green sturgeon through an outline of the plan. The outline discussed that important threats to consider in the recovery plan include methods to address blockage of access to spawning habitat in the Sacramento River, critical flow and water temperature patterns, harvest and poaching rates, entrainment, invasive species, exposure to contaminants, and loss of habitat and related estuarine/Delta function.

4A.7.1.3 Central Valley Project Improvement Act - Anadromous Fish Restoration Program

The Central Valley Project Improvement Act (CVPIA) is discussed in Chapter 4 Environmental Compliance and Permit Summary (Section 4.1.3). One of the purposes of the CVPIA is the broad goal of restoring natural populations of anadromous fish (e.g., Chinook salmon, steelhead, green sturgeon, white sturgeon, American shad, and striped bass) in Central Valley rivers and streams to double their recent average abundance levels. The Anadromous Fish Restoration Program strives to achieve this goal by directing the Secretary of the Interior to develop and implement a program to ensure the sustainability of anadromous fish in Central Valley Rivers and streams. The program includes extensive habitat restoration programs in the upper Sacramento River watershed, including along Clear Creek, Battle Creek, Mill Creek, and Deer Creek. This program also is implemented in conjunction with another provision of CVPIA to implement fish screens at specific diversions in the Sacramento River watershed under the Anadromous Fish Screen Program.

4A.7.1.4 National Invasive Species Act of 1996

The National Invasive Species Act reauthorizes and amends the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 to mandate regulations to reduce environmental and economic impacts from invasive species and to prevent introduction and spread of aquatic nuisance species, primarily through ballast water. The authority to regulate ballast water discharges in the United States has shifted to include USEPA in addition to the U.S. Coast Guard. Since February 2009, USEPA must regulate ballast water and other discharges incidental to normal vessel operations under Section 402 of the CWA. U.S. Coast Guard regulations, developed under authority of the revised and reauthorized act, also require ballast water management (i.e., ballast water exchange) for vessels entering U.S. waters from outside the Exclusive Economic Zone, with certain exceptions. The act also authorized funding for research on aquatic nuisance species prevention and control in San Francisco Bay, the Delta, the Pacific Coast, and other areas of the United States.

4A.7.1.5 Executive Order 13112: Invasive Species

EO 13112 (February 3, 1999) directs all federal agencies to prevent and control the introduction and spread of invasive nonnative species in a cost-effective and environmentally sound manner to minimize their effects on economic, ecological, and human health. EO 13112 was intended to build on existing laws, such as NEPA, the Nonindigenous Aquatic Nuisance Prevention and Control Act, the Lacey Act, the Plant Pest Act, the Federal Noxious Weed Act, and ESA. EO 13112 established a national Invasive Species Council composed of federal agencies and departments and a supporting Invasive Species Advisory Committee composed of state, local, and private entities. The Invasive Species Council and Species Advisory Committee oversee and facilitate implementation of EO 13112, including preparation and revision of the National Invasive Species Management Plan.

4A.7.1.6 Trinity River Restoration Program

The Trinity River Restoration Program (TRRP) was implemented in 2001 following the issuance of the TRRP ROD. The purpose of the TRRP is to restore and maintain the natural production of anadromous fish in the Trinity River Basin downstream of Lewiston Dam, including fishery restoration to pre-Trinity River Diversion (TRD) levels, and to meet the U.S. Government's tribal trust obligations. The TRRP includes actions that: (1) re-establish the natural physical processes that create and maintain high quality aquatic habitat; and (2) create spawning and rearing conditions downstream of the dams that best compensate for lost habitat upstream, including adequate water temperatures.

The goal of the TRRP is not to re-create pre-dam conditions; rather, the goal is to create a smaller, dynamic, alluvial channel exhibiting all the characteristics of the pre-dam river but at a smaller scale. This strategy is intended to best achieve the restoration goals and maintain the purpose and use of the TRD.

Components of the TRRP include flow management for geomorphic and riparian processes, flow management for temperature and habitat, channel and watershed restoration, coarse sediment management, and adaptive management and monitoring.

4A.7.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to aquatic biological resources are discussed in Sections 4A.1 and 4A.2 in addition to the following items.

4A.7.2.1 The Salmon, Steelhead Trout, and Anadromous Fisheries Program Act

Enacted in 1988, the Salmon, Steelhead Trout and Anadromous Fisheries Program Act was implemented in response to reports that the natural production of salmon and steelhead in California had declined dramatically since the 1940s, primarily as a result of lost stream habitat on many streams in the State. The Salmon, Steelhead Trout, and Anadromous Fisheries Program Act declares that it is the policy of the State of California to increase the State's salmon and steelhead resources, and directs CDFW to develop a plan and program that strives to double the salmon and steelhead resources [Fish and Game Code §6902(a)]. It is also the policy of the State that existing natural salmon and steelhead habitat shall not be diminished further without offsetting the impacts of lost habitat [Fish and Game Code §6902(c)].

4A.7.2.2 Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act (NCCPA) (Fish and Game Code Sections 2800-2835) describes the State's policies on the conservation, protection, restoration, and enhancement of the State's natural resources and ecosystems. The intent of the legislation is to provide for conservation planning as an officially recognized policy that can be used to eliminate conflicts between the protection of the State's natural resources and the need for growth and development. In addition, the legislation promotes conservation planning as a means of coordination and cooperation among private interests, agencies, and landowners and as a mechanism for multispecies and multi-habitat management. The NCCP provides an alternative means for CDFW to authorize the incidental take of species listed as threatened or endangered or which are candidates for listing under CESA. This legislation also authorizes the NCCP program to design projects for and promote conservation of natural communities, while accommodating compatible land use.

The NCCP program is broader in its orientation and objectives than CESA and ESA. Both ESA laws are designed to identify and protect individual species that have already significantly declined in number; the

primary objective of the NCCP program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to prevent the controversies and gridlock caused by species' being listed. The intention of the plan is to provide protection for natural communities and the endangered, threatened, candidate, or other species known, or reasonably expected to be found in those communities. It does this by focusing on the long-term stability of wildlife and plant communities. Working with landowners, environmental organizations, and other interested parties, a local agency oversees the numerous activities that compose the development of a conservation plan. CDFW and USFWS provide the necessary support, direction, and guidance to NCCP participants.

4A.7.2.3 California Fish and Game Code Section 5937 (Flows Below Dams)

Fish and Game Code 5937 states that "the owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the department to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam, when, in the judgment of the department, it is impracticable or detrimental to the owner to pass the water through the fishway."

4A.7.2.4 California Fish and Game Code Sections 5980–5993 (Fish Screening)

Sections 5980 to 5993 of the Fish and Game Code states that conduits with a maximum flow capacity greater than 250 cubic feet per second of water must be examined by CDFW. It is the responsibility of the owner of a conduit to install a screen when deemed by CDFW that it is necessary to prevent fish from passing into the conduit.

4A.7.2.5 California Aquatic Invasive Species Management Plan

The California Aquatic Invasive Species Management Plan, developed by CDFW, provides information that State agencies and other entities can use to collaborate on addressing aquatic invasive species. The plan proposes management actions for addressing aquatic invasive species threats to the State of California. It focuses on the nonnative algae, crabs, clams, fish, plants, and other species that continue to invade California's creeks, wetlands, rivers, bays, and coastal waters. Each objective is supported by a series of strategic actions. The plan meets federal requirements to develop statewide Nonindigenous Aquatic Nuisance Species Management Plans under Section 1204 of the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (amended as the National Invasive Species Act of 1996). Article 2, Section 64, of the Harbors and Navigation Code authorizes the California Department of Boating and Waterways to manage aquatic weeds impeding the navigation and use of State waterways.

4A.7.2.6 Marine Invasive Species Act

The Marine Invasive Species Act of 2003 (AB 433) revised and expanded the Ballast Water Management for Control of Nonindigenous Species Act of 1999 to more effectively address the threat of nonindigenous species introductions. The law charged the California State Lands Commission (CSLC) with oversight of the State's program to prevent or minimize the introduction of nonindigenous species from commercial vessels. The current CSLC regulations provide vessel owners with options for managing ballast water, including retention, exchange in mid-ocean waters, treatment, or discharge at the same location the ballast water originated.

4A.8 Chapter 13. Botanical Resources

4A.8.1 Federal Plans, Policies, and Regulations

Federal plans, policies, and regulations applicable to botanical resources are discussed in Sections 4A.1, 4A.2, and 4A.7 in addition to the following item.

4A.8.1.1 Executive Order 11312: Invasive Species

EO 11312 directs all federal agencies to prevent and control introductions of invasive nonnative species in a cost-effective and environmentally sound manner to minimize their economic, ecological, and human health impacts. EO 11312 established a national Invasive Species Council composed of federal agencies and departments and a supporting Invasive Species Advisory Committee composed of State, local, and private entities. The Invasive Species Council and Species Advisory Committee oversee and facilitate implementation of the EO, including preparation of a National Invasive Species Management Plan.

4A.8.2 State Plans, Policies, and Regulations

4A.8.2.1 Sections of the California Fish and Game Code Pertaining to Invasive and Noxious Plant Species

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

4A.8.2.1 California Wetlands Conservation Policy

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

4A.8.2.1 California Native Plant Society List

According to CDFW, species on California Native Plant Species (CNPS) List 1 or 2 must be treated as equivalent to State-listed species if they meet the definition of rare or endangered pursuant to CEQA §15380. CNPS states that "all of the plants constituting List 1B and List 2 meet the definitions of Sec. 1901, Chapter 10 (National Plant Protection Act) or Secs. 2062 and 2067 (CESA) of the Fish and Game Code, and are eligible for State listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA."

4A.9 Chapter 14: Terrestrial Biological Resources

4A.9.1 Federal Plans, Policies, and Regulations

Federal plans, policies, and regulations applicable to terrestrial biological resources are discussed in Sections 4A.1, 4A.7, and 4A.8 in addition to the following items.

4A.9.1.1 Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds

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

4A.9.1.2 North American Waterfowl Management Plan and Central Valley Joint Venture

In 1986, the North American Waterfowl Management Plan (NAWMP) was signed by the United States and Canada. It provides a broad framework for waterfowl management through 2000 and includes recommendations for wetland and upland habitat protection, restoration, and enhancement. Implementing the NAWMP is the responsibility of designated joint ventures. The Central Valley Habitat Joint Venture, formally organized in 1988, was one of the original six priority joint ventures formed under the NAWMP. Renamed the Central Valley Joint Venture in 2004, it is composed of 21 federal and State agencies, conservation organizations, and Pacific Gas and Electric Company (PG&E).

4A.9.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to terrestrial biological resources are discussed in Sections 4A.1, 4A.7, and 4A.8 in addition to the following items.

4A.9.2.1 California Fish and Game Code

California Fish and Game Code 3503

This Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.

California Fish and Game Code 3503.5

This Fish and Game Code states 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 nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

California Fish and Game Code 3511

(a) (1) Except as provided in Section 2081.7 or 2835, fully protected birds or parts thereof may not be taken or possessed at any time. The following are fully protected birds:

(1) American peregrine falcon (*Falco peregrinus anatum*).
(2) Brown pelican (*Pelicanus occidentalis*).
(3) California black rail (*Laterallus jamaicensis coturniculus*).
(4) California clapper rail (*Rallus longirostris obsoletus*).
(5) California condor (*Gymnogyps californianus*).
(6) California least tern (*Sterna albifrons browni*).
(7) Golden eagle (*Aquila chrysaetos*).
(8) Greater sandhill crane (*Grus canadensis tabida*).

(9) Light-footed clapper rail (*Rallus longirostris levipes*).
(10) Southern bald eagle (*Haliaeetus leucocephalus leucocephalus*).
(11) Trumpeter swan (*Cygnus buccinator*).
(12) White-tailed kite (*Elanus leucurus*).
(13) Yuma clapper rail (*Rallus longirostris yumanensis*).

California Fish and Game Code 4700

(a) (1) Except as provided in Section 2081.7 or 2835, fully protected mammals or parts thereof may not be taken or possessed at any time. The following are fully protected mammals:

(14) Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*).

(15) Bighorn sheep (*Ovis canadensis*), except Nelson bighorn sheep (subspecies *Ovis canadensis nelsoni)* as provided by subdivision (b) of Section 4902.

(16) Northern elephant seal (*Mirounga angustirostris*).

(17) Guadalupe fur seal (*Arctocephalus townsendi*).

(18) Ring-tailed cat (Bassariscus *astutus*).

(19) Pacific right whale (*Eubalaena sieboldi*).

(20) Salt-marsh harvest mouse (*Reithrodontomys raviventris*).

(21) Southern sea otter (*Enhydra lutris nereis*).

(22) Wolverine (*Gulo luscus*).

California Fish and Game Code 5050

(a) (1) Except as provided in Section 2081.7 or 2835, fully protected reptiles and amphibians or parts thereof may not be taken or possessed at any time. The following are fully protected reptiles and amphibians:

(23) Blunt-nosed leopard lizard (*Crotaphytus wislizenii silus*).
(24) San Francisco garter snake (*Thamnophis sirtalis tetrataenia*).
(25) Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*).
(26) Limestone salamander (*Hydromantes brunus*).
(27) Black toad (*Bufo boreas exsul*).

4A.9.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to terrestrial biological resources are discussed in Sections 4A.1, 4A.7, and 4A.8.

4A.10 Chapter 15: Wetlands and Other Waters of the U.S.

4A.10.1 Federal Plans, Policies, and Regulations

Federal plans, policies, and regulations applicable to wetlands and other waters of the U.S. are discussed in Sections 4A.1, 4A.7, 4A.8, and 4A.9 in addition to the following items.

4A.10.1.1 Executive Order 11990, Protection of Wetlands

EO 11990 requires each federal agency to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands which are under their jurisdiction. Further, it requires all federal agencies to consider wetland protection as an important part of their policies and take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.

4A.10.1.2 No Net Loss of Wetlands Policy

"No net loss" is the United States government's overall policy goal regarding wetlands preservation. The goal of the policy is to balance wetland loss due to economic development with wetlands reclamation, mitigation, and restorations efforts, so that the total acreage of wetlands in the country does not decrease, but remains constant or increases. No net loss as a goal for wetland's policy was recommended at the National Wetlands Policy Forum in 1987 and was adopted in 1989. The policy, which represented compromise between development and conservation, was grounded on the needs to protect the wetlands by creating and restoring the wetlands.

4A.10.1.3 Comprehensive Conservation Plans for National Wildlife Refuges

USFWS is directed to develop Comprehensive Conservation Plans (CCPs) to guide the management and resource use for each refuge of the National Wildlife Refuge System under requirements of the National Wildlife Refuge Improvement Act of 1997. Refuge planning policy also directs the process and development of CCPs. A CCP provides a description of the desired future conditions and long-range guidance necessary for meeting refuge purposes. It also guides management decisions and sets forth strategies for achieving refuge goals and objectives within a 15-year time frame.

4A.10.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to wetlands and other waters of the U.S. are discussed in Sections 4A.1, 4A.7, 4A.8, and 4A.9 in addition to the following items.

4A.10.2.1 California Wetlands Conservation Policy

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

4A.10.2.2 Yolo Bypass Wildlife Area Land Management Plan

The Yolo Bypass Wildlife Area Land Management Plan was finalized in June 2008. The management plan is a general policy guide for CDFW to manage the Yolo Bypass Wildlife Area. It is intended to contribute to habitat management that uses natural processes to create a sustainable system over the long term. The policies are based on an ecosystem approach to habitat management consistent with the principles of CALFED's Ecosystem Restoration Program, as implemented by USFWS, NMFS, and CDFW.

4A.11 Chapter 16: Geology, Minerals, Soils, and Paleontology

4A.11.1 Federal Plans, Policies, and Regulations

Federal plans, policies, and regulations applicable to geology, minerals, soils, and paleontology are discussed in Sections 4A.1 and 4A.2 in addition to the following items.

4A.11.1.1 U.S. Geological Survey Landslide Hazard Program

USGS provides information regarding the causes of ground failure and mitigation strategies to reduce long-term losses from landslide hazards. The information is useful for understanding the nature and scope of ground failures and for improving the mitigation strategies.

4A.11.1.2 Antiquities Act of 1906

The Antiquities Act authorizes the President of the United States to designate National Monuments and provides criminal penalties (fines and/or imprisonment) for the unauthorized excavation, injury, or destruction of prehistoric or historic ruins and objects of antiquity located on federal land. This act applies to the public lands administered by federal agencies.

4A.11.1.3 Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act (ARPA) (16 U.S.C. 470aa to mm) amends the Antiquities Act, sets a broad policy that archaeological resources are important to the nation and should be protected, and requires special permits before the excavation or removal of archaeological resources from federally managed lands and Indian lands. This act is applicable to public lands within the project boundary that are managed by federal agencies. ARPA also provides for maintaining the confidentiality of information on the nature and location of archaeological sites.

4A.11.1.4 Omnibus Public Land Management Act of 2009

The Omnibus Public Land Management Act (OPLMA) of 2009, Title 6, Subtitle D, Paleontological Resources Preservation, requires the secretaries of the DOI (exclusive of Indian trust lands) and the U.S. Department of Agriculture (USDA) (insofar as U.S. Forest System lands are concerned) to "… manage and protect paleontological resources on Federal land using scientific principals and expertise… [and] develop appropriate plans for inventory, monitoring, and the scientific and educational use of paleontological resources …" The OPLMA further excludes casual collection from restrictions under the law, and then describes the requirements for permitting collection on federal lands, stipulations regarding the use of paleontological resources in education, continued federal ownership of recovered paleontological resources, and standards for acceptable repositories of collected specimens and associated data. The OPLMA also provides for criminal and civil penalties for unauthorized removal of paleontological resources from federal land, and for rewards for reporting the theft of fossils.

4A.11.1.5 Regulatory Design Codes for Buildings, Highways, and Other Structures

Federal standards for minimum design regulate the construction of any buildings, highways, and other structures and include the following:

- American Association of State Highway and Transportation Officials (AASHTO) Guide Specifications for Load and Resistance Factor Design (LRFD) Seismic Bridge Design, 1st Edition, 2009

- American Railway Engineering and Maintenance-of-Way Association Manual for Railway Engineering, Volume 2, Chapter 9, Seismic Design for Railway Structures, 2008
- American Society of Civil Engineers Minimum Design Loads for Buildings and Other Structures, ASCE-7-05, 2005
- Federal Highway Administration (FHWA) Seismic Retrofitting Manual for Highways Structures, Parts 1 and 2, 2006
- USACE (Corps, CESPK-ED-G), Geotechnical Levee Practice, SOP EDG-03, 2004
- USACE Design and Construction of Levees, EM 1110-2-1913, 2000
- USACE Engineering and Design, Earthquake Design and Evaluation for Civil Works Projects, ER 1110-2-1806, 1995
- USACE Engineering and Design – Earthquake Design and Evaluation of Concrete Hydraulic Structures, EM 1110-2-6053, 2007
- USACE Engineering and Design – General Design and Construction Considerations for Earth and Rock-Fill Dams, EM 1110-2-2300, 2004
- USACE Engineering and Design – Response Spectra and Seismic Analysis for Concrete Hydraulic Structures, EM 1110-2-6050,1999
- USACE Engineering and Design – Stability Analysis of Concrete Structures, EM 1110-2-2100, 2005
- USACE Engineering and Design – Structural Design and Evaluation of Outlet Works, EM 1110-2-2400, 2003
- USACE Engineering and Design – Time-History Dynamic Analysis of Concrete Hydraulic Structure, EM 1110-2-6051, 2003
- USACE Slope Stability, EM 1110-2-1902, 2003
- Reclamation. ACER Technical Memo No. 3. Criteria and Guidelines for Evacuating Storage Reservoirs and Sizing Low-Level Outlet Works, 1990
- DOI and USGS Climate Change and Water Resources Management: A Federal Perspective, Circular 1331

These standards establish minimum design criteria and construction requirements, including design of concrete and steel structures, levees, tunnels, pipelines, buildings, pumping stations, excavation and shoring, grading, and foundations.

4A.11.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to geology, minerals, soils, and paleontology are discussed in Sections 4A.1, 4A.2, 4A.4, and 4A.7 in addition to the following items.

4A.11.2.1 Surface Mining and Reclamation Act of 1975 (Public Resources Code 2762 and 2714)

Mining activities are regulated in the State of California by the Surface Mining and Reclamation Act (SMARA) of 1975. This law's purpose is to create and maintain an effective and comprehensive surface mining and reclamation policy with regulation of surface mining operations to ensure that adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition that is readily adaptable for alternative land uses. Production and conservation of minerals are encouraged, and consideration is given to values relating to recreation, wildlife, range and forage, and aesthetic enjoyment, while eliminating residual hazards to public health and safety. These goals are achieved through land use planning by allowing jurisdictions to balance the economic benefits of resource extraction with the need to provide other land uses.

It is also the intent of this process, through the adoption of local mineral resource management policies, that significant mineral resources be considered in future local land-use planning decisions. Public Resources Code Section 2762 directs that if a use is proposed that might threaten the potential recovery of minerals from an area that has been classified MRZ-2 (areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists), the county (or city) must specify its reasons for permitting use, provide public notice of those reasons, and forward a copy of its statement of reasons to the State Geologist and the State Mining and Geology Board.

4A.11.2.2 Asbestos Airborne Toxic Control Measure for Surfacing Applications (amended 2000)

This California Air Resources Board (ARB) regulation serves to control the sale, use, or transport of materials derived from ultramafic (high in magnesium and iron) or serpentine[7] sources with the goal of reducing airborne emissions of asbestos found in these materials. The regulation does not include aggregate materials derived from alluvial sources.

4A.11.2.3 Asbestos Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations 2002

This ARB regulation serves to limit ground disturbance in areas containing ultramafic rock or areas containing naturally occurring asbestos or serpentine.

4A.11.2.4 Regulatory Design Codes for Buildings, Highways, and Other Structures

State standards for minimum design regulate the construction of any buildings, highways, and other structures, and include the following:

- American Association of State Highway and Transportation Officials (AASHTO) Guide Specifications for Load and Resistance Factor Design (LRFD) Seismic Bridge Design, 1st Edition, 2009
- American Railway Engineering and Maintenance-of-Way Association Manual for Railway Engineering, Volume 2, Chapter 9, Seismic Design for Railway Structures, 2008

[7] Serpentine- a mineral or rock consisting essentially of a hydrous magnesium silicate usually having a dull green color and often a mottled appearance

- American Society of Civil Engineers Minimum Design Loads for Buildings and Other Structures, ASCE-7-05, 2005
- California Amendments to AASHTO LRFD Bridge Design Specifications, Fourth Edition, 2008
- California Building Code, 2013 (CCR, Title 24, Part 2)
- Caltrans Seismic Design Criteria, latest edition
- DWR DSOD Guidelines for Use of the Consequence-Hazard Matrix and Selection of Ground Motion Parameters, 2002
- DWR Interim Levee Design Criteria for Urban and Urbanizing Area State-Federal Project Levees, 2009

These standards establish minimum design criteria and construction requirements, including design of concrete and steel structures, levees, tunnels, pipelines, buildings, pumping stations, excavation and shoring, grading, and foundations.

4A.11.2.5 California Public Resources Code Chapter 1.7 Archaeological, Paleontological, and Historical Sites Section 5097.5)

(a) No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands. Violation of this section is a misdemeanor.

(b) As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the State, or any city, county, district, authority, or public corporation, or any agency thereof.

4A.11.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to geology, minerals, soils, and paleontology are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.12 Chapter 17. Faults and Seismicity

4A.12.1 Federal Plans, Policies, and Regulations

4A.12.1.1 National Earthquake Hazards Reduction Program Act of 2004

This act established the National Earthquake Hazards Reduction Program which was designed to develop and promote effective measures for earthquake hazard reductions, serve as a clearinghouse for data and standards related to earthquake effects on communities and structures, and to develop, operate and maintain the Advanced National Seismic Research and Monitoring System.

4A.12.1.2 U.S. Geological Survey Quaternary Faults

USGS maintains the database of Quaternary fault and fold parameters. The database is periodically updated to reflect the latest data available and current understanding of fault behaviors. These fault parameters were used to develop the National Seismic Hazard Maps.

4A.12.1.3 U.S. Geological Survey National Seismic Hazard Maps

USGS provides probabilistic seismic hazard maps for the 48 conterminous states, including the Delta area. These maps depict contour plots of peak ground acceleration and spectral accelerations at selected frequencies for various ground motion return periods. The maps were developed for a reference site condition with an average shear-wave velocity of about 2,500 feet per second in the top 100 feet. Ground motions in the Delta may be as much as 2 to 4 times higher due to soft soil amplification.

The USGS National Seismic Hazard Maps are updated periodically and have been adopted by many building and highway codes as the minimum design requirements.

4A.12.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to faults and seismicity are discussed in Sections 4A.4 and 4A.11 in addition to the following items.

4A.12.2.1 Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 was passed following the Loma Prieta earthquake to reduce threats to public health and safety by identifying and mapping known seismic hazard zones in California. The act directs the California Geological Survey of the Department of Conservation to identify and map areas prone to earthquake hazards of liquefaction[8], earthquake-induced landslides, and amplified ground shaking. The purpose of the maps is to assist cities and counties in fulfilling their responsibilities for protecting public health and safety.

4A.12.2.2 Alquist-Priolo Earthquake Fault Zoning Act of 1972

This act requires the State Geologist to provide maps of Earthquake Fault Zones to affected city, county, and State agencies to avoid development of structures for human occupancy across the trace of active faults. The act also facilitates the seismic retrofitting of existing buildings, including historic buildings, against ground shaking.

4A.12.2.3 California Division of Mines and Geology Special Publication No. 42, Fault-Rupture Hazard Zones in California, 2007

Pursuant to the Alquist-Priolo Earthquake Fault Zoning Act, this report summarizes the various responsibilities under the act, details the actions taken by the State Geologist and his staff to implement the act, and provides earthquake fault zone maps.

[8] Liquefaction- the process by which saturated, unconsolidated sediments are transformed into a substance that acts like a liquid. Earthquakes can cause soil liquefaction where loosely packed, water-logged sediments come loose from the intense shaking of the earthquake.

4A.12.2.4 California Division of Mines and Geology Special Publication No. 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California, 2008

Pursuant to the Seismic Hazards Mapping Act, this report presents guidelines for evaluating seismic hazards other than surface fault-rupture, and recommends mitigation measures as required by Public Resources Code Section 2695(a).

4A.12.2.5 California Code of Regulations, Title 23 Waters, Division 2 DWR, Chapter 1 Dams and Reservoirs, Article 5

This section of the CCR states that, pursuant to Section 6056 of the Water Code, the DWR shall retain a board of three consultants to report to the Director on the safety of dams owned by DWR. The consulting board shall make independent findings with regard to conditions which may affect the safety of the dam and reservoir as specified in Section 6081 of the Water Code, and the board shall also make independent findings that the dam is safe to impound water, as specified in Section 6355 of the Water Code.

This section also states that DWR shall retain a consulting board (1) to review the adequacy of the design of a dam and reservoir DWR proposes to construct, or (2) to review the safety of the completed construction and the terms and conditions to be included in a certificate of approval for any dam owned by DWR as issued, renewed or modified, no later than 6 months following any such action. Where a board is retained to review the adequacy of the design of a dam and reservoir, it shall report its findings to the Director prior to the approval of an application to construct or enlarge the dam.

In addition, DWR shall retain a review board at least once every 5 years to review the operational performance of department owned dams. The Federal Power Commission's 5-year independent review may be substituted if it is comparable to the review required by this article.

4A.12.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to geology, minerals, soils, and paleontology are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.13 Chapter 18: Cultural/Tribal Cultural Resources

4A.13.1 Federal Plans, Policies, and Regulations

4A.13.1.1 Antiquities Act of 1906

The Antiquities Act authorizes the President of the United States to designate National Monuments and provides criminal penalties (fines and/or imprisonment) for the unauthorized excavation, injury, or destruction of prehistoric or historic ruins and objects of antiquity located on federal land. This act applies to the public lands administered by federal agencies.

4A.13.1.2 Archaeological Resources Protection Act of 1979

The ARPA (16 U.S.C. 470aa to mm) amends the Antiquities Act, sets a broad policy that archaeological resources are important to the nation and should be protected, and requires special permits before the excavation or removal of archaeological resources from federally managed lands and Indian lands. This act is applicable to public lands within the project boundary that are managed by federal agencies. ARPA

also provides for maintaining the confidentiality of information on the nature and location of archaeological sites.

4A.13.1.3 Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) provides for increased involvement of Native Americans in archaeology and historic preservation. NAGPRA addresses the rights of lineal descendants and Indian tribes to Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony. These parties are to be consulted when such items are inadvertently discovered or intentionally excavated on federal or tribal lands. NAGPRA recognizes Native American "ownership" of these items. The NHPA amendments mandate tribal participation in the Section 106 process. A federal agency must consult with the tribal government or recognized representatives when its activities occur on a reservation and/or as part of an undertaking. Agencies also must consult with a tribe if an activity will affect a historic property to which the tribe attaches cultural or historic importance. More importantly, tribal historic preservation programs have the same legal status as State historic preservation programs. These stipulations are an acknowledgment that tribal sovereignty extends into the arena of cultural resource management and, therefore, are an extension of the government-to-government relationship between tribes and the federal government. The NHPA amendments also specify that "properties of traditional religious and cultural importance to Native Americans" qualify for inclusion in the NRHP. To a certain extent, this specification addresses the inability of the AIRFA to protect Native American sacred sites. This designation also expands the definition of "cultural resource" to include sites that may lack material remains.

4A.13.2 State Plans, Policies, and Regulations

4A.13.2.1 California Public Resources Code Chapter 1.7 Archaeological, Paleontological, and Historical Sites Section 5097.5)

(a) No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, or archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological, or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands. Violation of this section is a misdemeanor.

(b) As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the State, or any city, county, district, authority, or public corporation, or any agency thereof.

4A.13.2.2 California Register of Historical Resources

The California Register of Historical Resources (CRHR) includes resources that are listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be potentially significant resources for purposes of CEQA, unless a preponderance of evidence indicates otherwise. The eligibility criteria for listing in the CRHR are similar to those for NRHP listing, but focus on the importance of the resources to California history and heritage. A cultural resource may be eligible for listing in the CRHR if:

- It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
- It is associated with the lives of persons important to local, California, or national history; or
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

To be eligible, a resource must also have integrity. The CRHR definition of integrity is slightly different from that for the NRHP. Integrity is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (Office of Historic Preservation, 2002). The Office of Historic Preservation guidance further states that eligible resources must "retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance" and lists the same seven aspects of integrity used for evaluating properties under the NRHP criteria. The CRHR's special considerations for certain property types are limited to: (1) moved buildings, structures, or objects; (2) historical resources achieving significance within the past 50 years; and (3) reconstructed buildings (14 CCR Section 4852).

4A.13.2.3 California Native American Historic Resource Protection Act

The California Native American Historic Resource Protection Act establishes the Native American Heritage Commission (NAHC) and its responsibilities and requires cooperation of State and local agencies in carrying out its duties with respect to Native American resources. The NAHC identifies and catalogs places of special religious or social significance to Native Americans and known graves and cemeteries of Native Americans on private lands, and performs other duties regarding the preservation and accessibility of sacred sites and burials and the disposition of Native American human remains and burial items. In the event of the discovery of human remains of Native American origin, the NAHC is responsible for the identification of the person or persons it believes to be the most likely descendant from the deceased Native American.

4A.13.2.4 California Public Resources Code Section 5024.1

The Code Section requires State agencies to formulate policies to preserve and maintain State-owned historical resources under its jurisdiction. This includes those resources included in the NRHP as well as those resources potentially eligible for the register.

4A.13.2.5 California Public Resources Code Section 5097.9-5097.991

These code sections provide protection to the exercise of Native American religion including protection of cemeteries, places of worship, religious or ceremonial sites, or sacred shrines on public property. City and County lands less than 100 acres are excluded from the provisions of the code section. The code section authorizes the establishment of a Native American Heritage Commission with the responsibility to identify and make recommendations regarding Native American sacred sites.

4A.13.2.6 California Public Resources Code Sections 21080.3.1, 21080.3.2, 21082.3, 210804.3 (AB 52)

AB 52, which was approved by the California State Legislature in September 2014 and went into effect on January 1, 2015, requires that lead agencies consult with any California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe. The bill, chaptered in Public Resources Code (PRC) Section 21084.2, specifies that a proposed project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource (TCR) may have a significant effect on the environment.

As defined in PRC Section 21074(a), TCRs are the following:

(a) (1) Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources; or

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(a) (2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

TCRs are further defined under PRC Section 21074 as follows:

(b) A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe in accordance with PRC Section 21080.3.2 or Section 21084.3. The latter section identifies mitigation measures that include avoidance and preservation of TCRs and treating TCRs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

4A.13.2.7 California Health and Safety Code Section 7050.5: Disturbance of Human Remains

Section 7050.5 of the California Health and Safety Code includes the following requirements:

- Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor.
- In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are

discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. The coroner shall make his or her determination within 2 working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

- If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact the NAHC by telephone within 24 hours.

4A.13.2.8 California Health and Safety Code Sections 8010 to 8011: California Native American Graves Protection and Repatriation Act

Sections 8010–8011 of the California Health and Safety Code establish a State repatriation policy that is consistent with and facilitates implementation of the federal NAGPRA. The policy requires that all California Indian human remains and cultural items be treated with dignity and respect and encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. The policy provides for mechanisms to aid California Indian tribes, including non-federally recognized tribes, in filing repatriation claims and getting responses to those claims.

4A.13.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to cultural resources are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.14 Chapter 19: Indian Trust Assets

4A.14.1 Federal Plan, Policies, and Regulations

Indian Trust Assets (ITAs) are legal interests in property held in trust by the United States for federally recognized Indian Tribes or individuals. An Indian trust has three components: (1) the trustee, (2) the beneficiary, and (3) the trust asset. ITAs can include land, minerals, federally reserved hunting and fishing rights, federally reserved water rights, and instream flows associated with trust land. Beneficiaries of the Indian trust relationship are federally recognized Indian tribes with trust land; the United States is the trustee. By definition, ITAs cannot be sold, leased, or otherwise encumbered without approval of the United States. The characterization and application of the U.S. trust relationship have been defined by case law that interprets congressional acts, executive orders, and historical treaty provisions.

The federal government, through treaty, statute, or regulation, may take on specific, enforceable fiduciary obligations that give rise to a trust responsibility to federally recognized tribes and individual Indians possessing trust assets. Courts have recognized an enforceable federal fiduciary duty with respect to federal supervision of Indian money or natural resources, held in trust by the federal government, where specific treaties, statutes, or regulations create such a fiduciary duty.

Consistent with President William J. Clinton's 1994 memorandum, "Government-to-Government Relations with Native American Tribal Governments," Reclamation assesses the effect of its programs on tribal trust resources and federally recognized tribal governments. Reclamation is tasked to actively engage federally recognized tribal governments and consult with such tribes on a government-to-government level when its actions affect ITAs (Federal Register, Vol. 59, No. 85, May 4, 1994, pages 22951–22952). The DOI Departmental Manual Part 512.2 ascribes the responsibility for ensuring protection of ITAs to the heads of bureaus and offices. DOI is required to carry out activities in a manner that protects ITAs and avoids adverse effects whenever possible.

4A.14.2 Indian Sacred Sites on Federal Land

EO 13007 provides that in managing federal lands, each federal agency with statutory or administrative responsibility for management of federal lands shall, to the extent practicable and as permitted by law, accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites.

4A.15 Chapter 20: Land Use

4A.15.1 Federal Plans, Policies, and Regulations

4A.15.1.1 Farmland Protection Policy Act

The Farmland Protection Policy Act of 1981 (FPPA) is a federal regulation that is intended to minimize the impact of federal programs with respect to the conversion of farmland to nonagricultural uses. The FPPA ensures that, to the extent possible, federal programs are administered to be compatible with State, local, and private programs and policies to protect farmland. It is administered as a voluntary program by USDA, Natural Resources Conservation Service (NRCS). The FPPA established the Farmland Protection Program and the Land Evaluation and Site Assessment system. The system is used to rank lands for suitability and inclusion in the Farmland Protection Program. The land evaluation involves rating soils and placing them into groups ranging from the best to the least suited for a specific agricultural use, such as for cropland, forestland, or rangeland. The site assessment involves three major areas: non-soil factors related to agricultural use of a site, factors related to development pressures, and other public values of a site. Each factor selected is assigned a range of possible values according to local needs and objectives.

4A.15.1.2 Wetlands Reserve Program

The NRCS administers the Wetlands Reserve Program (WRP). The WRP was established by Congress in the 1990 Farm Bill and has been reauthorized in the 1996, 2002, and 2008 Farm Bills. There have been WRP easements in California since 1992. The WRP is a voluntary program that offers landowners the opportunity to protect, restore, and enhance wetlands on their property. Landowners who are enrolled in the program retain the title to the land and the right to control access and recreational use of that land.

The WRP offers three options:

- Permanent Easement: this is a conservation easement in perpetuity. USDA pays 100 percent of the easement value and up to 100 percent of the restoration costs.
- 30-Year Easement: this easement expires after 30 years. USDA pays up to 75 percent of the easement value and up to 75 percent of the restoration costs.

- Restoration Cost-Share Agreement: this is a 10-year agreement to restore or enhance the wetland functions and values without placing an easement on the enrolled acres. USDA pays up to 75 percent of the restoration costs.

Enrollment of land in the WRP limits the activities that can occur on that land, including digging, dredging, filling, leveling, and the installation of structures on, under, or over the easement area (except if those structures are for undeveloped recreational use).

4A.15.1.3 Federal Land and Water Conservation Fund Act

The Land and Water Conservation Fund was established by Congress in 1964 and is administered by the National Park Service. The fund provides money to federal, state, and local agencies as well as to six territories to purchase lands, waters, and wetlands for the benefit of all Americans. Lands and waters purchased through the Land and Water Conservation Fund are used to:

- Provide recreational opportunities
- Provide clean water
- Preserve wildlife habitat
- Enhance scenic vistas
- Protect archaeological and historical sites
- Maintain the pristine nature of wilderness areas

4A.15.1.4 Bureau of Land Management Resource Management Plans

Under the Federal Land Policy and Management Act of 1976, DOI Bureau of Land Management (BLM) is responsible for managing public lands for multiple uses and sustained yield, ensuring that the scenic values of these public lands are considered and avoiding land uses that may have negative impacts. Resource management plans for public lands are developed to guide BLM actions to protect ecological and scientific values; preserve public lands in their natural condition, where appropriate; provide food and habitat for fish and wildlife and domestic animals; provide for outdoor recreation and human occupancy and use; and recognize the nation's need for natural resources from the public lands, such as minerals, food, timber, and fiber.

4A.15.2 State Plans, Policies, and Regulations

4A.15.2.1 Important Farmland Inventory System and Farmland Mapping and Monitoring Program

The California Department of Conservation, Office of Land Conservation, maintains a statewide inventory of farmlands. These lands are mapped by the Division of Land Resource Protection as part of the Farmland Mapping and Monitoring Program. Lands are classified using a system that combines technical soil ratings and current land use into the following categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-up Land, Other Land, and Water. The definitions of these classifications are provided below.

Land Use Categories

- **Prime Farmland:** Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
- **Farmland of Statewide Importance:** Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
- **Unique Farmland:** Farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the 4 years prior to the mapping date.
- **Farmland of Local Importance:** Land of importance to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee. The county-specific Board of Supervisors has the authority to adopt or recommend changes to this category of farmland.
- **Grazing Land:** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in Cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.
- **Urban/Built-Up Land:** Land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- **Other Land:** Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and waterbodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.
- **Water:** Perennial water bodies with an extent of at least 40 acres.

4A.15.2.2 California Land Conservation Act of 1965 (Williamson Act)

Preservation of farmland in California is encouraged by the California Land Conservation Act of 1965, more commonly known as the "Williamson Act" (Gov. Code §51250 et seq.). The Williamson Act enables local governments to form contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. A landowner signs a contract with the County in which the land is located, voluntarily restricting land to agricultural and open space uses.

Some open space, defined by Government Code §51201 is generally eligible to be included as a compatible (not primary) use:

- Wildlife habitat areas, designated by the Board or Council in consultation with CDFW

- Some managed wetland areas, tidal submerged areas, and salt evaporation ponds
- Land supporting recreational use and open to the public, in its natural or agricultural state
- Land in scenic highway corridors
- Land enrolled in the federal Conservation Reserve Program or Conservation Reserve Enhancement Program are Open Space Uses

In return, landowners receive substantially reduced property tax assessments; assessments that are based upon generated income (i.e., farming and open space uses) as opposed to potential market value of the property. Local governments received a partial subvention (i.e., subsidy) of foregone property tax revenues from the State via the Open Space Subvention Act of 1972 (Government Code §16140, et seq.) through 2009. These payments have been suspended in more recent years due to revenue shortfalls.

The contract is renewed automatically annually, continuing indefinitely unless the owner or local government files for non-renewal. The minimum initial contract term is 10 years. Pursuant to the non-renewal process, the remaining contract term (9 years in the case of an original term of 10 years) is allowed to lapse, with the contract null and void at the end of the term. Property tax rates gradually increase during the nonrenewal period, until they reach normal (i.e., non-restricted) levels upon termination of the contract.

Pursuant to a set of specifically defined circumstances, a contract may be cancelled by the landowner without completing the process of term nonrenewal (Government Code §51281). Contract cancellation involves a comprehensive review and approval process, and the payment of a fee by the landowner equal to 12.5 percent of the full market value of the property in question. Landowners may petition a County Board of Supervisors or City Council for a Williamson Act contract cancellation. The County or City is required to send a copy of the petition to the Department of Conservation as a separate submittal from any CEQA document.

There are five sections pursuant to the Williamson Act statute that a landowner may petition a Board of Supervisors or City Council for a full or partial cancellation:

- §51282(b) Cancellation is Consistent with the Williamson Act
- §51282(c) Cancellation is in the Public interest
- §51282.3 Cancellation for Specified Alternate Use of the Land
- §51282.5 Cancellation of Land Zoned as Timberland Production
- §51297 Cancellation of Farmland Security Zone Contract

Local activities, such as eminent domain or city annexation, also result in the termination of Williamson Act contracts.

In 1998, the provisions of the Williamson Act were expanded by SB 1182 to strengthen agricultural land preservation incentives. The 1998 changes provided a 35 percent property tax discount to the Williamson Act valuation or Proposition 13 valuation, whichever is lower, and other incentives for farmland owners willing to maintain their land in agricultural land use for 20 years. This latter program creates Farmland Security Zones (also known as the “Super Williamson Act”) within agricultural preserves. Land enrolled under a Farmland Security Zone contract is restricted to agricultural and open spaces uses for a minimum initial contract term of 20 years. Land within a Farmland Security Zone cannot be annexed into cities, and school districts are prohibited from acquiring Farmland Security Zone lands for school facilities.

Cancellations of Farmland Security Zone contracts are more expensive and difficult than Williamson Act contracts.

4A.15.2.3 California State Planning and Zoning Laws

California Government Code §65300 et seq. establishes the obligation of cities and counties to adopt and implement General Plans. A city or county General Plan is a comprehensive, long-term, and general document that describes plans for the physical development of a city or county and any land outside its boundaries that, in the city's or county's judgment, bears relation to its planning. The General Plan addresses a broad range of topics, including seven mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety. In addressing these and other topics, the General Plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the city's or county's vision for the area. Although the General Plan serves as a blueprint for future development and identifies the overall vision for the applicable planning area, it remains general enough to allow for flexibility in the approach taken to achieve its goals.

California Government Code §65800 et seq. establishes that zoning ordinances, which are laws that define allowable land uses in a specific district, are required to be consistent with the General Plan and any applicable Specific Plan. Zoning codes implement the policies and provisions of the General Plans, identify permitted uses in each zone, regulate the use of land and the general design of structures, and establish minimum regulations and standards for developing land in each jurisdiction. When amendments to a General Plan are made, corresponding changes in the zoning codes may be required to ensure that the land uses designated in the General Plan also would be allowable by the zoning code.

4A.15.3 Regional and Local Plans, Policies, and Regulations

4A.15.3.1 Glenn County General Plan

The 1993 Glenn County General Plan includes the following countywide goals that it uses as a basis for evaluating development proposals and other land-use related activities within Glenn County. The General Plan includes policies and implementation measures that support its goals. Provided below are the goals and policies that reflect Glenn County's approach to managing land use and agricultural land and timberland preservation.

Natural Resources

Agriculture/Soils: Goals and Policies

Goal: NRG-1 – Preservation of Agricultural: Goal Land

It shall be the policy of Glenn County to:

- **NRP-1:** Maintain agriculture as a primary extensive land use, not only in recognition of the economic importance of agriculture, but also in terms of agriculture's contribution to the preservation of open space and wildlife habitat.
- **NRP-2:** Support the concept that agriculture is a total, functioning system which will suffer when any part of it is subjected to regulation resulting in the decline of agricultural economics productivity, unmitigated land use conflicts, and/or excessive land fragmentation.

- **NRP-3:** Recognize the value of rice lands for waterfowl habitat, watershed management, and for groundwater recharge in an effort to preserve such lands and to maintain necessary water supplies in Glenn County.
- **NRP-5:** Continue participation in the Williamson Act: policy, and allow new lands devoted to commercial agriculture and located outside urban limit lines to enter the program, subject to the specific standards for inclusion contained in this General Plan.
- **NRP-8:** Assure that future land use decisions protect and enhance the agricultural economics industry while also protecting existing uses from potential incompatibilities.
- **NRP-9:** Encourage use of agricultural land preservation lands preservation tools such as in-county transfer of development rights, conservation easements, exclusive agricultural zoning and continuation of minimum parcel sizes.
- **NRP-11:** Monitor requests for subdivision of agricultural land preservationally developed and zoned parcels, located outside urban limit lines, in order to determine if present minimum parcel sizes are working effectively to discourage agricultural lands conversion.
- **NRP-12:** Review agricultural land conversion findings as described in NRP-11 with decision makers annually.
- **NRP-14:** Consult Important Farmland Maps and other sources of information on the relative value of agricultural lands when planning areas of growth, in order to direct growth and development toward lesser value agricultural lands.
- **NRP-15:** Recognize that, in order to realistically provide for the necessary diversity and growth required in the local economy, some lands presently committed to agriculture may be consumed by other development activities, and plan for and monitor such conversion to assure that it does not hinder or restrict existing agricultural operations. Priority shall be given to industries related to agriculture.
- **NRP-21:** Require notices of nonrenewal for Williamson Act lands as a condition of land division and boundary line changes, which result in parcel sizes below zoning minimums.

Goal: NRG-4 – Preservation, Maintenance and Restoration of Forestry Resources

It shall be the policy of Glenn County to:

- **NRP-63:** Preserve public and private timber lands and reserve them for that use, while at the same time encouraging compatible recreation and open space uses.

Community Development

Land Use/Growth: Goals and Policies

Goal: CDG-1 – Preservation of Agricultural Land

It shall be the policy of Glenn County to:

- **CDP-1:** Establish urban-rural interface areas within which all new development shall incorporate a buffer zone to separate the development from surrounding agricultural land. This requirement may be

eliminated or modified if there are significant topographical differences, substantial vegetation, or existing physical barriers between urban and rural areas.

- **CDP-2:** Require that permanent well-defined buffer areas be provided as part of new nonagricultural development proposals located adjacent to agricultural land uses on Important Farmlands designated as prime, of statewide importance, unique, or of local importance. These buffer areas shall be dedicated in perpetuity, shall be of sufficient size to protect agriculture from the impacts of incompatible development and to mitigate the effects of agricultural operations on adjacent land uses, and shall be credited as open space.
- **CDP-10:** Encourage the preservation of agricultural lands, including those lands in production, and those which are potentially productive.
- **CDP-11:** Direct nonagricultural development to marginal agricultural lands, avoiding Important Farmlands, wherever feasible alternative sites have been identified.

Goal: CDG-3 – Appropriate Distribution and Regulation of Land Uses

It shall be the policy of Glenn County to:

- **CDP-20:** Assure that adequate provision is made in this General Plan for all types of uses and establish coherent land use patterns.
- **CDP-31:** Encourage commercial and industrial development in areas where adequate facilities and services exist or where facilities and services can be made available, including areas within incorporated cities, planned communities and along the I-5 corridor. Adequate facilities and services shall include community water and sewer if located within an incorporated city or urban limit line. In other areas, adequacy of sewer and water service shall be as determined by local health standards/regulations.

Glenn County Zoning Designations

AP – Agricultural Preserve Zone

The Agricultural Preserve Zone is to be applied to lands which are covered by a California Land Conservation Act (Williamson Act) contract with the county for the following purposes:

- To preserve the maximum amount of the limited supply of agricultural land which is necessary in the conservation of the county's economic resources and vital for a healthy agricultural economy of the county
- To protect the general welfare of the agricultural community for encroachments of unrelated agricultural uses which, by their nature, would be injurious to the physical and economic well-being of the agricultural community

FA – Foothill Agricultural/Forestry Zone

This zoning classification is established for the following purposes:

- To provide areas for extensive agricultural activities
- To protect the timber and forest lands economically suitable for logging

4A.15.3.2 Colusa County General Plan

The 2012 Colusa County General Plan includes the following countywide goals, objectives, and policies that it uses as a basis for evaluating development proposals and other land-use related activities within the County. Provided below are the goals, objectives, and policies that reflect Colusa County's approach to managing land use, agricultural land and timberland preservation, and open space uses.

Land Use Element

The Land Use Element provides for a development and resource conservation pattern that preserves and fosters the rural and agricultural character of Colusa County while allowing for economic development.

Goal LU-1: Maintain the Efficient and Harmonious use of Land in the County, Promoting a Well Organized and Orderly Development Pattern, Avoiding Random, Haphazard Growth, Protecting Public Health and Safety, and Accommodating the Orderly and Sustainable Growth of Employment and Population

Objective LU-1A: Provide a Balanced Mix of Land Uses that Reflect the Needs of the County Residents and Businesses

- **Policy LU 1-2:** Ensure that the County designates a supply of developable industrial, commercial, and residential land sufficient to meet projected growth and economic needs over the planning period.
- **Policy LU 1-7:** The Land Use Map may be amended from time to time to ensure that there is an adequate supply of industrial, commercial, public service, residential, and other lands to serve the county's economic needs. However, agricultural and open space lands shall not be re-designated or developed for urban or residential uses unless:
  - The proposed use is necessary for the economic, agricultural, and social well-being of the County.
  - Residential uses are located away from areas of excessive noise, smoke, or dust, especially in those areas adjoining freeways or industrial uses.
  - The proposed use will not conflict with existing or anticipated uses in the vicinity.
- **Policy LU 1-27:** Participate in countywide, regional and other multi-agency planning efforts related to agriculture, water supply, tourism, open space, air quality, housing, green infrastructure, recreation, habitat conservation, energy, emergency preparedness and flood protection to ensure that the needs of the county's residents and businesses are not overlooked.

Goal LU-2: Maintain Agriculture as the Paramount Land Use in the County and Ensure Land Use and Planning Decisions Support a Strong Agricultural Economy

Objective LU-2A: Conserve and Protect Agricultural Land through a Variety of Strategies, including General Planning, Zoning, Taxation, and Easements

- **Policy LU 2-1:** Agriculture, upland, and resource conservation are the primary land use designations to be used outside of the communities and any adjacent Urban Reserve Areas.
- **Policy LU 2-2:** Ensure that future development and land use decisions protect the integrity of agriculture and do not in any way create a hardship for the county's farmers.

- **Policy LU 2-3:** Ensure that lands presently in agricultural uses that do not adjoin existing communities continue to be designated for agricultural uses and are protected through the county's land use regulations.
- **Policy LU 2-4:** Manage agricultural parcels of less than 20 acres, including antiquated subdivisions, to improve compatibility with surrounding agricultural uses, including:
  - Minimizing the impact of residential development near farms.
  - Encouraging lot mergers to achieve larger parcel sizes.
  - Locating dwelling units and structures near roads and in a way that minimizes interruption or fragmentation of agricultural lands.

Objective LU-2A: Only Permit Development on Agricultural Land that will Not Interfere with Viable Agricultural Operations

Agricultural and Upland (Agriculture General, Agriculture Transition, and Agriculture Upland) Policies

- **Policy LU 2-5:** Require lands designated Agriculture General, Agriculture Transition, or Agriculture Upland to remain designated for agricultural use, including businesses or uses that directly support County agricultural activities, for at least the duration of the planning period, with the exception of lands redesignated consistent with the requirements of Policy LU 1-7.
- **Policy LU 2-6:** Discourage the division of land in agricultural areas if the division is not for the purpose of farming or other agricultural activities or if the division precludes the future opportunity to farm the land.

Goal LU-3: Ensure that Future Development Achieves the County's Goals of Agricultural Conservation, Rural Character, Growth Focused Around Existing Communities and Uses Sustainable Practices through Application of Development Requirements

- **Policy LU 3-4:** Require transitional uses or a buffer between residential and industrial uses, residential and general agriculture uses, and residential and agriculture upland uses.

Goal LU-4: Provide Clear Land Use Objectives and Standards to Address the Unique Needs and Conditions Associated with the Proposed Sites Reservoir

Objective LU-4A: Provide for Orderly, Well-planned, and Compatible Growth associated with the Proposed Sites Reservoir and Surrounding Area

- **Policy LU 4-1:** Support the creation of Sites Reservoir.
- **Policy LU 4-2:** Participate in State and regional planning efforts related to the creation of Sites Reservoir to the greatest extent feasible.
- **Policy LU 4-3:** Ensure that future land use decisions regarding Sites Reservoir and the surrounding area recognize the needs of the County and existing property owners to address adequate access for existing landowners and persons who travel beyond the area, noise, habitat for displaced species, and recreation and tourist opportunities that are compatible with the surrounding region.

- **Policy LU 4-4:** Support the efforts of the Sites Reservoir Joint Powers Authority, with particular emphasis on landowner relocation assistance and ensuring financial compensation for landowners adversely impacted by the creation of Sites Reservoir.
- **Policy LU 4-5:** Future land use and zoning designations in the Sites Reservoir Planning Area should emphasize natural resource and wildlife habitat protection, recreational opportunities, open space preservation, and limited commercial development to support recreation and tourism. Year-round housing in the vicinity of Sites Reservoir should be discouraged.

Action LU 4-A: When the final boundaries for the proposed Sites Reservoir are determined and approved by the California Department of Water Resources, develop a Sites Area Plan to guide land uses in the Sites Reservoir Area. The plan shall include policies and actions to promote the economic and social viability of the area and shall designate a variety of land uses. Land uses in the plan shall include provisions for active and passive recreation, limited commercial uses oriented toward recreation and tourism, viewing points of the main scenic areas of the reservoir and any bridges, and seasonal housing and campgrounds in the areas immediately adjacent the reservoir. Additionally, the plan shall identify agricultural land to accommodate the needs of existing landowners and farmers and habitat land for displaced species. Access, noise, water, wastewater, and emergency services shall be considered in the designation of land uses.

Action LU 4-B: Actively participate in the Sites Project Joint Powers Authority, and any other state and regional entities formed to plan and develop the Sites Reservoir. Ensure that the county's needs for a range of land uses, adequate and convenient access to existing parcels, habitat for plants, wildlife, and special-status species, adequate and convenient access to communities (Lodoga, Stonyford, etc.), and recreation and tourist opportunities are addressed and that measures to promote the economic and social viability of the area and to reduce adverse noise, traffic, and other adverse impacts are identified and implemented.

Agricultural Element

The Agriculture Element contains goals, objectives, policies and action items geared towards the protection of agricultural lands, the expansion of agricultural operations, and the reduction of conflicts between agricultural and non-agricultural land uses.

Goal AG-1: Preserve and Protect Agricultural Land

Objective AG 1-A: Recognize that Agricultural Land is the County's Greatest Natural Asset and Take Appropriate Measures to Restrict the Conversion of Agricultural Lands to Non-Agricultural Use

- **Policy AG 1-1:** The following General Plan land use designations are considered agricultural lands: Agricultural General (AG), Agricultural Upland (AU), and Agricultural Transition (AT).
- **Policy AG 1-2:** Lands designated for agricultural uses shall remain designated for agriculture and not be rezoned or redesignated to an urban use unless all of the following criteria are met:
  - The lot(s) for which conversion is requested is adjacent to agriculture or agricultural support uses (e.g. receiving plants, hulling plants, warehousing, trucking, distribution, and other related activities.) on no more than two sides of the lot(s) or less than 50 percent of the perimeter of the lot(s) proposed for conversion.

  - The conversion will not be detrimental to existing agricultural operations.
  - The conversion land is within 500 feet of existing urban infrastructure (e.g., water supply lines and sewer lines) and conversion will constitute a logical contiguous extension of a designated urban area.
  - The lot(s) proposed for conversion include a buffer at the agricultural/urban transition zone to protect future users of the conversion lands from nuisances associated with typical agricultural practices.
  - No feasible alternative location (e.g., non-agricultural lands or less productive agricultural lands) exists.
  - The use would not have a significant adverse effect on existing or potential agricultural activities on surrounding agricultural lands.

- **Policy AG 1-3:** Land divisions that separate a residence or an agricultural processing facility from the agricultural land shall be prohibited, unless the lot split meets the minimum lot size requirement of the zoning district.
- **Policy AG 1-4:** Maintain agricultural parcel sizes that are large enough to sustain agricultural activities. The following minimum lot sizes shall apply to agricultural lands: Agricultural General - 40 acres, Agricultural Upland - 80 acres, and Agricultural Transition - 10 acres.
- **Policy AG 1-5:** Encourage lot mergers to meet minimum parcel size standards.
- **Policy AG 1-6:** Residential development on agricultural lands shall be limited to housing for family members and agricultural employee housing.

Goal AG-2: Maintain and Enhance Agriculture as the County's Most Critical Land Use, Economic Sector, and Resource

Objective AG 2-B: Allow Limited Recreation and Resource Production Uses on Agricultural Lands While Ensuring that Such Uses Do Not Adversely Affect Agricultural Activities

- **Policy AG 2-2:** Visitor-serving uses that support and are incidental to agricultural production, such as tasting rooms, including sales and promotion of products grown or processed in the County, educational activities and tours, incidental sales of items related to local area agricultural products, promotional events, and farm homestays, which allow visitors to visit a farm in the form of a vacation, that support and are secondary and incidental to local agricultural production, shall be allowed on agricultural lands provided the following findings are made:
  - The use promotes and markets only agricultural products grown or processed in the local area.
  - The use is compatible with and secondary and incidental to agricultural production activities in the area.
  - The use will not require the extension of sewer and water service.
  - The use is compatible with existing uses in the area.
  - The use will not adversely affect agricultural production in the area.
  - The use will not result in significant adverse traffic or air quality impacts.

- The use will not be detrimental to the rural character of the area.

- **Policy AG 2-3:** Low-intensity recreational uses may be permitted on agricultural lands as long as they do not interfere with the principal use of the land for agricultural purposes. Examples include hunting, fishing, target shooting, horseback riding, hiking and exhibitions of working farms or ranches.

Objective AG 2-C: Preserve and Protect Water, Soil, and Natural Resources Necessary for Agricultural Operations

- **Policy AG 2-8:** Support and promote water development projects which provide additional sources of water for agricultural uses.

- **Policy AG 2-9:** Support the procurement of expanded and additional water rights which provide for contractual supply reliability for agricultural use.

Open Space and Recreation Element

Recreation is an important concern of County residents, and park facilities and recreational opportunities cannot exist without open space. This element addresses parks and recreation issues, goals, objectives, and policies.

Goal OSR-1: Preserve and Protect the Natural Resources and Scenic Beauty of the County

Objective OSR 1-A: Provide a Diverse and Accessible Range of Open Space Lands

- **Policy OSR 1-9**: Maintain open space for future water and drainage projects.

Objective OSR 1-E: Retain and Preserve Expansive Open spaces, Uninterrupted by Urban Development, both in the Valley Floor and in Upland Valleys

- **Policy OSR 1-23:** Ensure that open space buffers such as greenbelts, drainage features, parks, or other improved and maintained features are provided by new development projects, where appropriate, between new urban development and sensitive open space uses, such as agriculture and wildlife habitat. Buffers shall be adequately sized to reduce potential land use conflicts between adjacent uses.

Goal OSR-2: Increase Opportunities for Recreational Activities in Open Space

Objective OSR 2-A: Ensure Adequate and Increased Public Access is Available to Open Space Recreation Areas

- **Policy OSR 2-5**: Public access to the water and shoreline areas of lakes, reservoirs, rivers and streams, should be provided where appropriate.

Objective OSR 2-B: Increase Opportunities for County Residents and Visitors to Engage in a Broad Variety of Outdoor Recreation Activities

- **Policy OSR 2-13:** Encourage recreational uses that emphasize use of the waterways in locations directly on the Sacramento River, East Park Reservoir, and the proposed Sites Reservoir. Examples include fishing, canoeing, boating, and nature observation. With the exception of boat launches and docks, more active uses, such as parking, restrooms, and picnic areas, shall be located in areas away from the river and sensitive riparian habitat.

- **Policy OSR 2-14:** Encourage recreational uses that emphasize a range of outdoor activities, such as hiking, drive-in camping, hike-in camping, picnics, off-highway vehicle use, and nature observation, at the Mendocino National Forest, East Park Reservoir, proposed Sites Reservoir, Sacramento River, and other outdoor recreation areas.
- **Policy OSR 2-15:** Support the location and creation of Sites Reservoir in Colusa County (See Policies LU 4-1 through 4-5).
- **Policy OSR 2-16:** Require future water development projects, including reservoirs, marinas, and water-front developments, to include provisions for public access to the water and shoreline areas to the greatest extent feasible, without compromising private property rights.

Colusa County General Plan Land Use and Zoning Designations

The Agriculture General (AG)[9] land use designation identifies areas to be retained for agriculture and/or uses that are complementary to existing or nearby agricultural uses. This designation includes lands under agricultural preservation and/or conservation contracts and easements; land having present or future potential for agricultural production, and contiguous or intermixed smaller parcels on which non-compatible uses could jeopardize the long-term agricultural use of nearby agricultural lands. Lands designated Agriculture General are planned to be preserved for agricultural uses and the intent of the designation is to preserve such lands for existing and future agricultural use and protect these lands from the pressures of development.

The Colusa County zoning classifications are presented below.

AT-10/20 Agricultural Transition

The purpose of the A-T zone is to provide areas for long-term rural and agricultural uses on smaller-scale parcels, and to provide a buffer around communities, urban areas, and planned future urban or community development. The A-T zone identifies areas where agricultural land has already been subdivided into parcels smaller than 40 acres, and areas where small-scale agricultural uses are appropriate. The A-T zone serves as a transition zone between established communities and the large-scale farms and agricultural operations beyond. Land in the A-T zone is intended to remain in agricultural use, and is not intended for conversion to urban or rural residential uses. The A-T zone includes A-T-10, which allows for a minimum 10-acre lot size, and A-T-20, which allows for a minimum 20-acre lot size.

C-2 Community Commercial

The C-2 zone is intended to apply to areas where more complete commercial facilities are necessary for community convenience. The purpose of the C-2 zone is to allow for a full range of retail, service, and office uses to serve residents, workers, and visitors.

C-H

The C-H zone is intended to provide necessary services and conveniences for the traveling public along main roads and highway frontages at proper intervals and locations in developments designed for safety, convenience, and suitable appearance.

[9] Agriculture Preserve (A-P) and Exclusive Agriculture (E-A) zoning districts are compatible with the Agriculture General land use designation.

E-A – Exclusive Agriculture

The purpose of the E-A zone is to protect agricultural uses and agricultural operations in areas where fertile soils particularly suited to crop production are present, areas where agriculture is the natural and desirable primary land use, and where the protection of agriculture from the encroachment of incompatible land uses is essential to the general welfare and economic prosperity of the County.

F-A – Foothill Agriculture

The purpose of the F-A zone is to protect, support, and maintain a viable, long-term agricultural sector in areas of the County with soil types that are not optimal for crop production. The F-A zone is intended to be applied in areas where agricultural activities such as grazing, orchards, and vineyards are the natural and desirable primary land use, and where the protection of agriculture from the encroachment of incompatible land uses is essential to the general welfare and economic prosperity of the County.

F-M – Flood Management

The F-M zone is intended to be applied to areas other than River Frontage areas which have been inundated by overflow floodwaters in the past, and which may reasonably be expected to be inundated by such floodwaters in the future. The Flood Management zone is intended to limit the use of areas subject to such inundation and flooding to protect lives and property from loss, damage, and destruction due to floodwaters and the transportation by water of wreckage and debris. Appropriate uses within the F-M zone include agricultural activities and resource management activities that do not impede flood flows.

M-1 Light Industrial

The purpose of the M-1 zone is to allow for light industrial and service commercial uses that have little potential to create noise, odor, vibration, or other similar impacts to adjacent uses and surrounding areas.

R-F River Frontage

The purpose of the R-F zone is to identify lands which lie within river, stream, or tidal channels, and to adjacent areas which are periodically inundated, or which are predicted to be inundated, by a "design flood." Appropriate uses in the R-F zone include agricultural and recreational uses that do not include permanent structures.

R-S Rural Services

The R--S zone identifies areas suitable to provide necessary housing and services to the rural communities of Delevan, Sites, and Lodoga. The R-S zone facilitates multiple land uses on any given lot, consistent with and supportive of a higher intensity of development in the community area core that will contribute to a prosperous economy and higher quality of life in each of these rural centers. Subdivision or lot splitting into parcels smaller than two acres is prohibited, unless community water and septic/sewer systems can be provided to serve lots smaller than two acres.

R-2/3/4 Residential

The purpose of the R-2/3/4 zone is to provide opportunities for a mix of house types from low-to medium-density residential development; apartment complexes, duplexes, and condominiums for medium-density residential development; and higher-density residential development in areas of the Count close to urban centers where all utilities and services are available. Professional and business offices are also appropriate uses in the R-4 zone.

R-R Rural Residential (R-R-2 and R-R-5)

The R-R zone is intended for areas where land ownership and parcel patterns preclude the use of land for agriculture, but the land is not appropriate for urban uses and densities due to lack of public water and/or sewer service. Allowed uses in the R-R zone include single family housing, second units, crop cultivation, and small-scale agricultural activities that are not the primary use of the parcel. This designation accommodates semi-rural and rural living at average densities of one house per two to ten acres. This designation is used to preserve the attractive low-density character of the areas around or adjacent to established urban areas, such as Colusa, Williams, Arbuckle, and Maxwell and adjacent to rural community centers, such as Grimes, Princeton, and Stonyford and the partially developed non-sewered communities and settlements such as College City and Century Ranch. The Rural Residential designation may serve as a buffer between farmland and urban uses. The R-R zone includes R-R-2, which allows for a minimum 2-acre lot size, and R-R-5, which allows for a minimum 5-acre lot size.

R-1-6/8 Residential Single-Family

The purpose of the R-1 zone is to allow for single-family homes and related uses in residential neighborhoods. The standards for the R-1 zone are intended to preserve and protect the character of existing neighborhoods, and to ensure that new residential neighborhoods are developed in areas containing appropriate access, topography, utilities and public services to support single-family residential living. The R-1 zone is intended to accommodate the majority of future residential growth in or adjacent to existing communities and urban centers. Residential densities may range from 1 to 5 units per acre. The R-1 zone includes R-1-6, which allows for a minimum 6,000 square foot lot size, and R-1-8, which allows for a minimum 8,000 square foot lot size.

4A.16 Chapter 21: Recreation Resources

4A.16.1 Federal Plans, Policies, and Regulations

4A.16.1.1 Federal Water Project Recreation Act of 1965

The Federal Water Project Recreation Act [16 U.S.C. 460(L)(12)- 460(L)(21)] declares the intent of Congress is that recreation, fish, and wildlife enhancement be given full consideration as purposes of federal water projects if non-federal public bodies agree: (1) to bear 50 percent of the cost of recreation enhancement and 25 percent of the cost of fish and wildlife enhancement, (2) to administer project lands and water bodies for these purposes, and (3) to bear all operation, maintenance, and replacement costs. This cost sharing is not required on federal lands under federal programs for fish and wildlife conservation.

This act also authorizes the use of federal water project funds for land acquisition to establish refuges for migratory waterfowl when recommended by the Secretary of the Interior and authorizes the Secretary to provide facilities for outdoor recreation, fish, and wildlife at all reservoirs under the Secretary's control, except those within national wildlife refuges.

4A.16.1.2 Federal Land and Water Conservation Fund Act

The Land and Water Conservation Fund, created by Congress in 1964, provides money to federal, state, and local governments to purchase land, water, and wetlands for the benefit of all Americans. Lands and waters purchased through the Land and Water Conservation Fund are used to:

- Provide recreational opportunities
- Provide clean water
- Preserve wildlife habitat
- Enhance scenic vistas
- Protect archaeological and historical sites
- Maintain the pristine nature of wilderness areas

4A.16.1.3 Rehabilitation Act of 1973

This federal act extended and revised authorization of grants to states for vocational rehabilitation. One of the purposes of the act is to evaluate architectural and transportation barriers to handicapped individuals, develop new approaches, enforce statutory standards and requirements regarding barrier free construction of public facilities.

4A.16.1.4 Architectural Barriers Act of 1968

The Architectural Barriers Act requires access to facilities designed, built, altered, or leased with federal funds. The act is enforced by the Department of Defense, the Department of Housing and Urban Development, the General Services Administration, and the U.S. Postal Service to ensure, whenever possible, that physically handicapped persons will have ready access to, and use of, such buildings

4A.16.1.5 Americans with Disabilities Act of 1990, as Amended

Public facilities must comply with the Americans with Disabilities Act (ADA) of 1990, as amended, to the extent possible. Needs and considerations regarding the disabled must be addressed and new facilities must comply with ADA standards.

4A.16.1.6 Management Guide for the Shasta and Trinity Units of the Whiskeytown-Shasta-Trinity National Recreation Area

The purpose of the 1996 Shasta-Trinity National Recreation Area (NRA) management guide is to integrate past decisions that remain pertinent for managing the Shasta and Trinity units of the NRA with standards, guidelines, and management prescriptions incorporated from the April 1995 Shasta-Trinity National Forest Land and Resource Management Plan (LRMP). The LRMP establishes integrated land management direction, including time frames for implementing, monitoring, and evaluating projects, activities, programs, and budgeting in the Shasta-Trinity National Forest for a period of 10 to 15 years. The NRA management guide provides an analysis of direction from the LRMP, a summary of existing conditions, a description of desired future conditions, and a strategy of management recommendations, opportunities, and mitigation measures that will be used to implement the direction in the LRMP and achieve the desired future conditions.

4A.16.1.7 San Luis Authorization Act

Congress passed the San Luis Authorization Act in 1960 to authorize the construction and operation of the San Luis Unit and to enable Reclamation to participate in the development of recreation facilities. The San Luis Unit is a part of the CVP and the SWP and is jointly operated by Reclamation and DWR. The principal purpose of the federal portion of the facilities is to furnish approximately 1.25 million acre-feet of water as a supplemental irrigation supply to 600,000 acres located in the western portion of Fresno, Kings, and Merced counties.

4A.16.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to recreation are discussed in Section 4A.15 in addition to the following items.

4A.16.2.1 State Water Code Section 11900-11901 (Implementing the Davis-Dolwig Act)

Chapter 10, Part 3, Division 6 of the California Water Code states that State facilities designed for the storage, conservation, or regulation of water shall be constructed in a manner consistent with the full utilization of their potential for the enhancement of fish and wildlife and to meet recreational needs. It specifies that providing for the enhancement of fish and wildlife and for recreation in connection with water storage, conservation, or regulation facilities benefits all of the people of California and that project construction costs attributable to such enhancement of fish and wildlife and recreation features should be borne by them. It further states that State recreation and the enhancement of fish and wildlife resources are among the purposes of State water projects; that the acquisition of real property for such purposes be planned and initiated concurrently with and as a part of the land acquisition program for other purposes of State water projects; and that facilities for such purposes be ready and available for public use when each State water project having a potential for such uses is completed. DWR is required to operate the SWP Facilities in accordance with this act.

4A.16.2.2 California Public Trust Doctrine

The California Public Trust Doctrine holds that certain resources are above private ownership and reside in the trust of the government for the benefit of the people. It is the duty of the government to administer these resources for the highest public interest. California courts have expanded the scope of the Doctrine to include recreation and environmental benefits. Additionally, the Doctrine has been expanded to include not only navigable waters, but all State-owned lands, fish, and wildlife.

4A.16.2.3 California Department of Boating and Waterways

The Department of Boating and Waterways' (DBW's) mission is to provide safe and convenient public access to California's waterways and leadership in promoting the public's right to safe, enjoyable, and environmentally sound recreational boating. To that end, DBW has several authorities with regard to activities in the Delta. DBW endorses boating safety and education, assists local boating law enforcement agencies, ensures uniformity in boating regulations, and licenses boat operators and brokers. DBW is also responsible for reviewing, updating, and adopting State boating regulations to reflect changes in federal and State boating laws and for planning and designing boating facilities for California Department of Parks and Recreation (State Parks) and on other State lands. DBW has been the lead agency for controlling water hyacinth (since 1982) in the Delta and *Egeria densa* since 1997.

4A.16.2.4 California Department of Parks and Recreation

The mission of the State Parks is to provide for the health, inspiration, and education of the people of California by helping to preserve the State's biological diversity, protecting its valued natural and cultural resources, and creating opportunities for high quality outdoor recreation. State Parks has a major role in the protection, restoration, and interpretation of the State's wetlands. In addition to being included in State Parks' primary mission, wetlands preservation is also a mandated responsibility under the Keene-Nejedly California Wetlands Preservation Act of 1976 (Public Resource Code Division 5, Chapter 7). The act directs State Parks, along with CDFW, to recognize opportunities for protecting wetlands within or adjacent to State Parks System units, and to consider acquisition of wetlands in proximity of State parks.

In addition to lands directly owned by State Parks, State Parks has certain jurisdiction over granted or ungranted tidelands or submerged lands abutting State Parks System lands (Public Resource Code Section 5003.5).

Folsom Lake State Recreation Area General Plan and Amendment

The first Folsom Lake State Recreation Area (SRA) General Plan was approved in 1979. The plan was amended in 1996 to include additional facility recommendations for the Negro Bar (Lake Natoma), Willow Creek (Lake Natoma), and Beals Point (Folsom Lake) areas as part of the American River Bridge Crossing Project at Lake Natoma. The California Department of Parks and Recreation (State Parks) is updating the general plan for the Folsom Lake SRA. The original 1979 general plan identifies the objectives for both Lake Natoma and Folsom Lake.

Lake Oroville State Recreation Area Resource Management Plan and General Development Plan and Amendment

In 1973, the Lake Oroville SRA Resource Management Plan and General Development Plan were approved. The plans outlined the allowable use intensities and planned development for each area in the SRA. In 1988, an amendment to the plan was approved to address three issues in the Lime Saddle area: acquisition of land, disposal of a parcel, and expansion of the existing Lime Saddle Marina.

San Luis Reservoir State Recreation Area General Development Plan and Amendment

The General Development Plan for the San Luis Reservoir SRA was approved in 1971, although the plan was not developed to the same level of detail used for later State Parks general plans. In 1986, the general development plan was amended to revise the land use designation for about 65 acres of land on the northern side of O'Neill Forebay from undesignated to a day and overnight use designation, thus allowing development of overnight facilities in the Meadows area and boat-in day-use and camping facilities in the Grant Line area. State Parks is updating the general plan for the San Luis Reservoir SRA.

4A.16.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to recreation are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.17 Chapter 22: Socioeconomics

4A.17.1 Federal Plans, Policies, and Regulations

4A.17.1.1 Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970

Title II, Uniform Relocation Assistance, §201(b), establishes a uniform policy for the fair and equitable treatment of persons displaced as a direct result of programs or projects undertaken by a federal agency or with federal financial assistance. The primary purpose of this title is to ensure that such persons shall not suffer disproportionate injuries as a result of programs and projects designed for the benefit of the public as a whole and to minimize the hardship of displacement on such persons.

Title III, Uniform Real Property Acquisition Policy, §301**,** was developed "In order to encourage and expedite the acquisition of real property by agreements with owners, to avoid litigation and relieve

congestion in the courts, to assure consistent treatment for owners in the many federal programs, and to promote public confidence in federal land acquisition practices."

4A.17.1.2 Housing and Community Development Act of 1974

Pursuant to §104(d) of the Housing and Community Development Act of 1974, as amended and the implementing regulations at 24 CFR 42, a residential anti-displacement and relocation assistance plan is required and must provide for: (1) one-for-one replacement of occupied and vacant occupiable low- and moderate-income dwelling units demolished or converted to another use in connection with a development project assisted under Parts 570 and 92; and (2) provide relocation assistance for all low- and moderate-income persons who occupied housing that is demolished or converted to a use other than for low- or moderate-income housing.

4A.17.1.3 U.S. Department of Agriculture

USDA administers and implements several programs that can influence both how the agricultural sector may react to proposed project activities and how large the direct economic effects on agriculture might be. These programs include the direct and countercyclical payments program, commonly referred to as the farm commodity programs, and the Conservation Reserve Program and similar programs. This section briefly describes important parts of the farm program.

The current farm commodity programs are defined in the Food, Conservation, and Energy Act of 2008, passed by Congress and signed into law in 2008. This law, commonly referred to as the Farm Bill, authorizes the programs for the next 5 years. At any time, Congress may, with the President's approval, extend, modify, restructure, or eliminate one or more programs.

The current Farm Bill contains 15 titles that describe and authorize one or more specific programs. Key programs include:

- **Commodity Programs**. Certain agricultural commodities receive price supports and/or direct payments under the 2008 Farm Bill. These include corn, cotton, rice, small grains, grain sorghum, oilseeds, dry peas/lentils, and sugar crops (other crops also are included but are not grown in California). For the crop programs, benefits are paid to producers with eligible historical acreage (called Base Acres) of covered commodities. Some of these payments are available even if the program commodity is no longer grown on that base acreage; however, conversion of the land to nonagricultural uses generally eliminates all commodity program payments.
- **Conservation Reserve and Wetland Reserve Programs**. These programs provide annual payments to farmers willing to enter long-term contracts to maintain vegetative cover on eligible lands or to restore wetlands on previously agricultural land. They also provide cost-sharing and other financial assistance for soil conservation, water conservation, and wildlife conservation activities.
- **Marketing and Credit Assistance**. Numerous programs are designed to provide direct assistance, credit guarantees, and loans to support agriculture.
- **Crop Insurance and Disaster Assistance**. These programs provide subsidized crop insurance to farmers and provide disaster assistance payments to crop and livestock producers in declared disaster counties.

4A.17.2 State Plans, Policies, and Regulations

4A.17.2.1 California Constitution: Article 1 Declaration of Rights, Section 19

Pursuant to the California Constitution and other statutes, public agencies may use eminent domain power to: (1) acquire private property (real, business, personal, tangible, or intangible property); or (2) reduce the economic value of property for a public purpose (these are referred to as "damages") if they pay "just compensation" to the owner. Just compensation includes: (1) the fair market value of the real property and its improvements; and (2) any diminution in value of the remaining property when property taken is part of a larger parcel.

4A.17.2.2 California Relocation Assistance Act and the California Relocation Assistance and Real Property Acquisition Guidelines

Chapter 16, §7260 to 7277 of the California Government Code states that whenever programs or projects undertaken by a public entity result in the displacement of any person, the displaced person is entitled to payment for actual moving and related expenses as the public entity determines to be reasonable and necessary.

CCR Title 25, Chapter 6 provides guidelines to ensure that uniform, fair, and equitable treatment is afforded persons displaced from their homes, businesses, or farms as a result of the actions of a public entity in order that such persons shall not suffer disproportionate injury as a result of action taken for the benefit of the public as a whole.

4A.17.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to socioeconomics are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.18 Chapter 23: Environmental Justice

4A.18.1 Federal Plans, Policies, and Regulations

4A.18.1.1 Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 states that "No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title VI bars intentional discrimination, but also unjustified disparate impact discrimination resulting from policies and practices that are neutral on their face (i.e., there is no evidence of intentional discrimination), but have the effect of discrimination on protected groups.

4A.18.1.2 Executive Order 12898

EO 12898, issued in 1994, requires that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations…." In the memorandum transmitting EO 12898 to federal agencies, it was further specified that, "each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by the National Environmental Policy Act

[NEPA] of 1969." Guidance on how to implement EO 12898 and conduct an Environmental Justice analysis has been issued by the CEQ.

4A.18.1.3 Council on Environmental Quality Guidance (1997)

The CEQ issued guidance in 1997, entitled "Environmental Justice: Guidance under the National Environmental Policy Act," that established the role of EO 12898 as it relates to actions subject to NEPA. The guidance also established the criteria for identifying environmental justice populations and how to consider the involvement of environmental justice groups throughout phases of the NEPA process. CEQ guidance for performing environmental justice analyses as part of the NEPA process provides definitions, thresholds, and overall methodological guidance for environmental justice analyses.

4A.18.1.4 U.S. Department of the Interior Environmental Compliance Memorandum No. ECM 95-3

Memorandum No. ECM 95-3 provides guidance for complying with EO 12898 for DOI actions and programs. It stipulates that environmental documents prepared by DOI agencies shall analyze the impact of agency actions on minority and low-income populations. The memorandum directs agencies to evaluate the equity of the impacts imposed on these populations relative to the benefit of the action. The relevant environmental document should identify any such impacts, or the absence of impacts, on minority and low-income populations.

U.S. Department of the Interior Environmental Justice Strategic Plan – 1995

EO 12898 requires federal agencies to develop agency-specific environmental justice plans. The DOI Environmental Justice Strategic Plan – 1995 provides the following goals (1995):

- **Goal 1:** The Department will involve minority and low-income communities as we make environmental decisions and assure public access to our environmental information.
- **Goal 2:** The Department will provide its employees environmental justice guidance and with the help of minority and low-income communities develop training which will reduce their exposure to environmental health and safety hazards.
- **Goal 3:** The Department will use and expand its science, research, and data collection capabilities on innovative solutions to environmental justice-related issues (for example, assisting in the identification of different consumption patterns of populations who rely principally on fish and/or wildlife for subsistence).
- **Goal 4:** The Department will use our public partnership opportunities with environmental and grassroots groups, business, academic, labor organizations, and Federal, Tribal, and local governments to advance environmental justice.

4A.18.1.5 U.S. Environmental Protection Agency Office of Environmental Justice's Environmental Justice Implementation Plan (1997)

The Environmental Justice Implementation Plan supplements EO 12898 and its associated Environmental Justice Strategic Plan by providing a timetable for undertaking revisions, as required by the EO, and identifying lead process owners and realistic measures of success.

4A.18.1.6 U.S. Environmental Protection Agency Final Guidance for Incorporating Environmental Justice Concerns in the USEPA's National Environmental Policy Act Compliance Analyses (1998)

This framework serves as a guidance to incorporate environmental justice goals into USEPA's preparation of EISs and environmental assessments (EAs) pursuant to NEPA. This framework emphasizes the importance of selecting an analytical process appropriate to the unique circumstances of the potentially affected community.

4A.18.2 State Plans, Policies, and Regulations

4A.18.2.1 Senate Bill 115

Approved in 1999, California SB 115 defines environmental justice as "the fair treatment of people of all races, cultures and income with respect to development, adoption and implementation of environmental laws, regulations and policies." SB 115 adds this language in §65040.12 to the Government Code and Part 3 to Division 34 of the Public Resources Code, both of which concern environmental justice relating to environmental quality. Finally, SB 115 also established the Governor's Office of Planning and Research (OPR) as the coordinating agency for State environmental justice programs and requested that CalEPA establish a model environmental justice policy for its boards, departments, and offices.

4A.18.2.2 California Government Code Section 65040.12

Pursuant to AB 1553, signed into law in October 2001, §65040.12 requires the OPR to:

1. Consult with the Secretaries of the CalEPA, the Resources Agency, and the Business, Transportation and Housing Agency, the Working Group on Environmental Justice established pursuant to §72002 of the Public Resources Code, any other appropriate State agencies, and all other interested members of the public and private sectors in this state.
2. Coordinate the office's efforts and share information regarding environmental justice programs with the CEQ, USEPA, the General Accounting Office, the Office of Management and Budget, and other federal agencies.
3. Review and evaluate any information from federal agencies that is obtained as a result of their respective regulatory activities under federal EO 12898, and from the Working Group on Environmental Justice established pursuant to §72002 of the Public Resources Code.
4. Establish guidelines for addressing environmental justice issues in City and County general plans, including planning methods for the equitable distribution of public facilities and services, industrial land uses, and the promotion of more livable communities.

4A.18.2.3 California State Lands Commission Environmental Justice Policy (October 1, 2002)

CSLC developed an Environmental Justice Policy to ensure equity and fairness in its own processes and procedures, and in October 2002, it adopted an amended policy. The policy ensures that "environmental justice is an essential consideration in its processes, decisions, and programs, and that all people who live in California have a meaningful way to participate in these activities." CSLC implements the policy, in part, by identifying and communicating with relevant populations that could be adversely and disproportionately affected by CSLC projects or programs, and by ensuring that a range of reasonable

alternatives is identified to minimize or eliminate environmental impacts affecting such populations. Pursuant to the agency's adopted environmental justice policy, CSLC's staff is required to report back to the Commission regarding how environmental justice is integrated into its programs, processes, and activities.

4A.18.2.4 California Public Resources Code Sections 71110 to 71116 to Address CalEPA Environmental Justice Policy

Public Resources Code §71110 to 71116 require CalEPA to develop a model environmental justice mission statement for boards, departments, and offices in the agency. In addition, §71113 requires CalEPA to convene a Working Group in Environmental Justice to develop a comprehensive environmental justice strategy. The sections also require this strategy to be reviewed and updated. Finally, §71116 establishes a small grant program for nonprofit organizations and federally recognized tribal entities to research environmental justice issues in their community and address larger environmental justice issues.

4A.18.2.5 California Natural Resources Agency Environmental Justice Policy

The California Natural Resources Agency defines environmental justice in a manner consistent with the State of California as "the fair treatment of people of all races, cultures and income with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." The agency states that its environmental justice policy is that the fair treatment of all people shall be considered during the planning, decision making, development, and implementation of its programs. The California Natural Resources Agency intends for its policy "to ensure that the public, including minority and low-income populations, are informed of opportunities to participate in the development and implementation of all Resources Agency programs, policies and activities, and that they are not discriminated against, treated unfairly, or caused to experience disproportionately high and adverse human health or environmental effects from environmental decisions."

4A.18.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to environmental justice are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.19 Chapter 24: Air Quality

4A.19.1 Federal Plans, Policies, and Regulations

4A.19.1.1 Clean Air Act

The federal Clean Air Act (CAA) is the federal law passed in 1970, with amendments in 1977 and 1990. It forms the basis for the national air pollution control effort. Basic elements of the CAA include National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutants standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

National Ambient Air Quality Standards and Federal Air Quality Designations

Pursuant to the CAA, USEPA established NAAQS for carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in aerodynamic diameter (PM_{10}), particulate matter less than 2.5 microns in aerodynamic diameter ($PM_{2.5}$), and lead (Pb). These pollutants are referred to as criteria pollutants because numerical health-based criteria have been established that define acceptable levels of exposure for each pollutant. The NAAQS for these pollutants are provided in Chapter 24 Air Quality.

USEPA has revised the NAAQS several times since their original implementation and will continue to do so as the health effects of exposure to pollution are better understood. As new NAAQS are adopted, ambient air quality monitoring data are reviewed by the regulatory agencies for each geographic area, and USEPA uses the findings to designate the areas' pollutant-specific attainment status.

USEPA designates areas as attainment[10], nonattainment[11], or unclassified[12] for individual criteria pollutants depending on the air quality measured in the areas achieves (i.e., attains) the applicable NAAQS for each pollutant. An area can be designated as attainment for one pollutant (for example, NO_2) and nonattainment for others (for example, O_3 and PM_{10}). Unclassified areas are treated as attainment areas for regulatory purposes.

For some pollutants, there are numerous classifications of the nonattainment designation, depending on the severity of an area's nonattainment status. For example, the O_3 nonattainment designation has eight subclasses: basic, transitional, marginal, moderate, serious, severe 15, severe 17, and extreme.

Pursuant to the 1977 CAA amendments, states (or areas within states) with ambient air quality concentrations that do not meet the NAAQS are required to develop and maintain State Implementation Plans (SIPs). The SIPs constitute a federally enforceable definition of the State's approach and schedule for the attainment of the NAAQS.

Finally, areas that were designated as nonattainment in the past but have since achieved the NAAQS are further classified as attainment maintenance areas. The maintenance classification remains in effect for 20 years from the date when the area is determined by USEPA to meet the NAAQS. States must obtain USEPA approval of maintenance plans to ensure continued attainment over these 20-year time frames.

Federal General Conformity Requirements

The 1977 CAA amendments state that the federal government is prohibited from engaging in, supporting, providing financial assistance for, licensing, permitting, or approving any activity that does not conform to an applicable SIP. In the 1990 CAA amendments, USEPA included provisions requiring federal agencies to ensure that actions undertaken in nonattainment or attainment maintenance areas are consistent with applicable SIPs. The process of determining whether a federal action is consistent with applicable SIPs is called "conformity" determination.

These conformity provisions were put in place to ensure that federal agencies would contribute to and not undermine efforts to attain the NAAQS. USEPA has issued two conformity regulations: (1) a transportation conformity regulation that applies to transportation plans, programs, and projects and (2) a general conformity

[10] Attainment Area: A geographic area considered to have air quality as good as or better than the national and/or State ambient air quality standards (NAAQS and CAAQS, respectively) (USEPA, 2006).

[11] Nonattainment Area: A geographic area identified by USEPA and/or ARB as not meeting either NAAQS or CAAQS standards for a given pollutant (ARB, 2010).

[12] Unclassified Area: A geographic area that lacks monitoring data.

regulation that applies to all other federal actions. A conformity determination is a process that demonstrates how an action would conform to the applicable SIP, and is required only for the project alternative that is ultimately selected and approved. If the emissions cannot be reduced sufficiently and if air dispersion modeling cannot demonstrate conformity, then either a plan for mitigating or a plan for offsetting the emissions would need to be pursued. The general conformity determination is submitted in the form of a written finding that is issued after a minimum 30-day public comment period on the draft determination.

USEPA general conformity regulation applies only to federal actions that result in emissions of "nonattainment or maintenance pollutants" or their precursors in federally-designated nonattainment or maintenance areas[13]. The general conformity regulation establishes a process to demonstrate that federal actions would be consistent with applicable SIPs and would not cause or contribute to new violations of the NAAQS, increase the frequency or severity of existing violations of the NAAQS, or delay the timely attainment of the NAAQS. The emission thresholds that trigger requirements of the general conformity regulation for federal actions emitting nonattainment or maintenance pollutants, or their precursors, are called *de minimis* levels.

Prevention of Significant Deterioration/New Source Review and New Source Performance Standards

The CAA and amendments also include regulations intended to prevent significant deterioration of air quality in attainment or maintenance areas, to provide for New Source Review (NSR) of major sources and modifications in nonattainment areas, and to establish emission performance standards for new stationary sources or new source performance standards (NSPS). Federal Prevention of Significant Deterioration (PSD)/NSR regulations apply to major (generally very large) stationary sources of emissions. NSPS apply to various types of new, modified, or reconstructed emissions units, and apply to such units regardless of whether these units are located at facilities that are "major" sources of emissions for PSD/NSR purposes.

4A.19.1.2 Federal Regulations for Hazardous Air Pollutants

Hazardous air pollutants (HAPs) are defined as air pollutants that may cause serious human health effects, including mortality, but which are not regulated through issuance of a national ambient air quality standard.

USEPA has developed regulations to evaluate and, if necessary, mitigate HAPs emissions sources. Prior to the 1990 CAA amendments, USEPA established pollutant-specific National Emission Standards for Hazardous Air Pollutants (NESHAPs). NESHAPs were established for benzene, vinyl chloride, radionuclides, mercury, asbestos, beryllium, inorganic arsenic, radon 222, and coke oven emissions. The 1990 CAA amendments list 189 total pollutants that are defined as HAPs. For this list of pollutants, USEPA is required to set standards for categories and subcategories of sources that emit HAPs, rather than for the pollutants themselves. USEPA began issuing the new standards, referred to as Maximum Achievable Control Technology (MACT) standards, in November 1994. NESHAPs set before 1991 remain applicable.

[13] The federal general conformity regulation does not apply to federal actions in areas designated as nonattainment for only the California ambient air quality standards.

The applicability of MACT standards is typically determined by each facility's potential to emit (PTE) HAPs from all applicable sources. The facility-wide PTE HAP applicability threshold values are 10 tons per year (tpy) for a single HAP and 25 tpy for any two or more HAPs.

4A.19.1.3 Federal Standards for Mobile Sources

USEPA's Office of Transportation and Air Quality regulates air pollution from motor vehicles and engines and the fuels used to operate them. USEPA defines "mobile sources" to include cars, light-duty trucks, heavy-duty trucks, buses, recreational vehicles (such as dirt bikes and snowmobiles), farm and construction machines, lawn and garden equipment, marine engines, aircraft, and locomotives.

Starting in the 1970s, USEPA has established progressively more stringent standards for CO, hydrocarbons (HCs), oxides of nitrogen (NO_x), and PM emissions from on-road vehicles. Since the early 1990s, USEPA has developed similar standards for non-road engines and equipment, and also set tighter limits on sulfur allowed in fuels used for mobile sources. Emission standards set limits on the amount of pollution a vehicle or engine can emit, and are designed to force future vehicles and engines to meet stricter standards.

4A.19.2 State Plans, Policies, and Regulations

4A.19.2.1 California Clean Air Act

California air quality policies are regulated through the California Clean Air Act (CCAA) of 1988. The CCAA provides the State with a comprehensive framework for air quality planning regulation. Prior to passage of the act, federal law contained the only comprehensive planning framework.

4A.19.2.2 Mulford-Carrell Act

This 1967 act established the ARB. The ARB's mission is to promote and protect public health, welfare, and ecological resources through improved air quality. The ARB oversees the activities of local and regional air quality districts.

4A.19.2.3 California Ambient Air Quality Standards and State Air Quality Designations

The ARB administers air quality policy in California, establishes statewide standards, and administers the State's mobile-source emissions control program, which is described below. In addition, the ARB oversees air quality programs established by State statute, and oversees programs to achieve the California Ambient Air Quality Standards (CAAQS). These standards are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility-reducing particulates, hydrogen sulfide, and sulfates. The CAAQS for these pollutants are provided in Chapter 24 Air Quality.

4A.19.2.4 State Implementation Plans

Federal clean air laws require nonattainment areas with unhealthy levels of criteria air pollutants to develop SIPs to detail actions that will be undertaken to achieve the NAAQS. In addition, the CCAA requires local air districts in nonattainment areas of the State to prepare and maintain Air Quality Management Plans (AQMPs) to achieve compliance with CAAQS. These AQMPs also serve as a basis for preparing the SIP for the State of California, which must ultimately be approved by USEPA and codified in the CFR.

SIPs are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, and permitting), district rules, State regulations, and federal control requirements. Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel standards and requirements, and limits on emissions from consumer products. State law establishes the ARB as the lead agency for all purposes related to the SIP. Local air districts and other agencies, such as the Bureau of Automotive Repair, prepare SIP elements and submit them to ARB for review and approval. The ARB forwards SIP revisions to USEPA for approval and publication in the Federal Register. The CFR Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items included in the California SIP. The promulgation of the new national 8-hour O_3 standard and $PM_{2.5}$ standards has resulted in additional statewide air quality planning efforts. The California Regional Haze Plan has been drafted to reduce regional haze and improve visibility in national parks and wilderness areas. Many additional California SIP submittals are pending USEPA approval.

In addition to the SIPs aimed at attainment of the NAAQS, the CCAA requires nonattainment areas to achieve and maintain the CAAQS by the earliest practicable date. Local air districts must develop plans to attain the State O_3, CO, SO_2, and NO_2 standards. The CCAA also requires that, by the end of 1994 and once every 3 years thereafter, the local air districts must assess their progress toward attaining the air quality standards. The triennial assessment is to report the extent of air quality improvement and the amounts of emission reductions achieved from control measures for the preceding 3-year period. The districts must review and revise their attainment plans, if necessary, to correct for deficiencies in meeting progress, incorporate new data or projections, mitigate O_3 transport, and expedite adoption of all feasible control measures. In addition to the triennial progress assessment requirement, local air districts must prepare an annual progress report and submit the report to the ARB by December 31 of each year. At a minimum, the annual progress report contains the proposed and actual dates for the adoption and implementation of each measure listed in the previous 3-year plan.

4A.19.2.5 California Air Toxics Programs

In addition to the criteria pollutants, concern about non-criteria pollutants has increased in recent years. AB 1807 (the Tanner Bill, passed in 1983) established the California Air Toxics Program for identifying and developing emissions control and reduction methods for toxic air contaminants (TACs). The bill formally designated 18 substances as TACs. In 1993, the 189 HAPs identified by USEPA were incorporated into California law as TACs. Other pollutants have been added more recently, such as particulate emissions from diesel-fueled engines (diesel PM), designated by California as a carcinogen. The California Air Toxics Program also includes provisions for public awareness and risk reduction.

Local agencies, such as air districts, are responsible for evaluating and controlling TAC emissions, especially when these emissions are released from projects near sensitive receptors. For example, AB 3205 requires that new or modified sources of TACs near schools provide public notice to the parents of school children before a permit to emit air pollutants is issued. One air toxics control measure adopted by the ARB in 2004 prohibited operation of diesel-fueled backup engines within 500 feet of a school during school hours, unless used in an emergency.

The Air Toxics "Hot Spots" Information and Assessment Act was enacted in September 1987. The act requires that toxic air emissions from stationary sources (facilities) be quantified and compiled into an inventory, that risk assessments be conducted according to methods developed by the California Office of Environmental Health Hazard Assessment (OEHHA), and that the public be notified of potentially significant risks posed by nearby facilities. Since the amendment of the statute in 1992 by enactment of

SB 1731, facilities that pose a potentially significant health risk to the public are required to reduce their risks.

4A.19.2.6 California Mobile-Source Emission Control Programs

The ARB is responsible for developing statewide programs and strategies to reduce the emission of smog-forming pollutants and TACs by mobile sources. To attain the CAAQS, the CCAA mandates that the ARB achieve the maximum degree of emission reductions from all on- and off-road mobile sources. On-road sources include passenger cars, motorcycles, trucks, and buses; off-road sources include heavy-duty construction equipment, recreational vehicles, marine vessels, lawn and garden equipment, and small utility engines. On-road vehicle emission control programs overseen by the ARB include:

- Vehicle inspections
- Idling restrictions
- Regulations to require clean vehicle fleets
- Voluntary vehicle retirement programs
- Engine emissions standards

Additionally, exhaust emission standards have been adopted by the ARB and USEPA for off-road engines. ARB has extensive statewide programs underway to reduce particulate emissions from diesel-fueled engines, also known as diesel PM.

4A.19.3 Regional and Local Plans, Policies, and Regulations

In California, air districts have been established to oversee the attainment of air quality standards within air basins as defined by the State. Each local air district has developed its own program and regulations to attain and maintain air quality standards while integrating federal and State requirements. The local air districts have permitting authority over all stationary sources of air pollutants within their district boundaries and provide the primary review of environmental documents prepared for projects with air quality issues. In many cases, the local air districts have established CEQA guidelines and significance thresholds for review of air-quality related impacts.

This section briefly describes applicable local air district rules and regulations, regional SIP and AQMP submittals, CEQA guidance documents, and air quality elements of General Plans for counties and cities in Glenn and Colusa counties.

4A.19.3.1 Regional and Local Air Quality Management Plans

The California Clean Air Act (CCAA) requires air districts which have been designated as a nonattainment area for CAAQS for ozone, carbon monoxide, sulfur dioxide, or nitrogen dioxide to prepare and submit a plan for attaining and maintaining the standards. The CCAA also requires that districts review their progress made toward attaining the CAAQS every three years.

The Air Pollution Control Districts and Air Quality Management Districts for the counties located in the northern portion of the Sacramento Valley comprise the Northern Sacramento Valley Planning Area (NSVPA). The NSVPA Districts were designated as nonattainment for the ozone CAAQS, and the NSVPA Districts have jointly prepared and adopted a uniform AQMP for the purpose of achieving and maintaining healthful air quality throughout the air basin.

The 2015 triennial update of the NSVPA Air Quality Attainment Plan (2015 Plan) assesses progress and updates control measure commitments, summarizes the last three years of ozone data, and compares the

expected versus actual emission reductions for each measure. The plan also reflects updates for population growth, industry, and vehicle-related emissions (SVAQEEP, 2015).

Since the preparation of the 2012 Plan, the NSVPA has observed improvements in ozone levels, especially in Glenn County and Colusa County, which were designated as attainment for the ozone CAAQS effective July 1, 2014. Sutter and Yuba Counties were designated as nonattainment-transitional effective September 25, 2010 and remain so (a nonattainment-transitional area is one that does not exceed the state standard more than three times at any monitoring location in a single calendar year). The remaining counties (Butte, Tehama, and Shasta) remain nonattainment (SVAQEEP, 2015).
All of the NSVPA Districts have been designated as non-attainment areas for the CAAQS for PM_{10}. Glenn and Colusa counties are located in agricultural areas, where challenges to attainment of the state PM10 standard include vehicle exhaust, wildfires, agricultural burning, and soil disturbance. An air quality plan for PM10 attainment was not identified in preparation of this document, but both GCAPCD and CCAPCD aid in the replacement of older stationary diesel agricultural engines and off-road diesel equipment with funding from the Carl Moyer Program, which includes the Off-road Equipment Replacement Program and the Off-road Voucher Incentive Program.

4A.19.3.2 Local Air District CEQA Guidance Documents Pertaining to Air Quality

Local air agencies may publish CEQA guidelines to assist local jurisdictions and lead agencies in complying with the requirements of CEQA regarding potentially adverse impacts to air quality. CEQA guidelines may or may not include thresholds of significance. Guidelines may provide useful information for calculating air pollution emissions, evaluating the health impacts of air pollutants, and identifying potential mitigation measures.

Air districts are required to develop and enforce local rules and regulations to attain and maintain healthful air within their jurisdiction. In past years, air districts were primarily concerned with emissions of criteria air pollutants, ozone precursors, odors, and toxic air contaminants.

The Glenn County Air Pollution Control District (GCAPCD) and the Colusa County Air Pollution Control District (CCAPCD) have developed plans and regulations to attain and maintain air quality standards while integrating federal and State requirements. For example, each of the agencies has developed regulations to cover new source review and permitting of stationary sources, agricultural burning, airborne toxic control measures, and federal operating permits.

The GCAPCD and the CCAPCD have not established CEQA air quality significance thresholds. Staff at these districts recommend use of thresholds established by a nearby air quality agency (Tehama County) as surrogates to evaluate potential local and regional impacts in the Primary Study Area (Ledbetter, 2016; Gomez, 2016). The Tehama County Air Pollution Control District (TCAPCD) has developed specific air quality guidelines and criteria for compliance with CEQA (TCAPCD, 2015). TCAPCD has established recommended significance thresholds for Project construction and/or operation. Projects with the potential to have higher emission levels are subject to increasingly more stringent environmental review and mitigation requirements.

4A.19.3.3 Glenn County and Colusa County General Plans

Glenn and Colusa counties have developed General Plans that include air quality policies. The 1993 Glenn County General Plan Update includes provisions to reduce air pollutant emissions, but the Draft EIR for the Update acknowledges that in nonattainment air basins, any emissions of nonattainment pollutants by new developments are considered to be a potentially significant air quality effect, both

directly and cumulatively. The Draft EIR indicates that many or most of the development projects that would be considered pursuant to the General Plan would potentially result in emissions of ozone precursors, which are associated with vehicular traffic, and PM_{10}, which can be emitted by construction activities, wood-burning appliances, yard burning, and incineration. The General Plan is intended to be compatible with the goals and policies of the local Air Quality Attainment Plan. Policies and implementation measures are included in the General Plan that require projects to incorporate all feasible emissions control measures, as specified in the Attainment Plan.

The 2012 Colusa County General Plan includes policies and action programs aimed at preserving air quality as part of the Conservation Element. The recommended measures include ongoing oversight by the CCAPCD for air monitoring, enforcement of local, State, and federal air quality rules, health risk assessment and mitigation of air toxics, and mitigation of potentially significant impacts to the maximum extent feasible. The General Plan requires a compact development pattern to reduce vehicle trips and promote alternative transportation methods, and requires projects to mitigate potentially significant air quality impacts associated with construction and operation.

4A.20 Chapter 25: Climate Change and Greenhouse Gas Emissions

4A.20.1 Federal Plans, Policies, and Regulations

4A.20.1.1 NEPA Final Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions

The DOI has considered the issue of climate change in a manner consistent with other federal agencies, and discusses how to address and integrate the topic into NEPA documents. DOI recommends that agencies consider two ways to address climate change in NEPA documents, which are not mutually exclusive: (1) evaluate the impacts of the proposed federal action on the climate, and (2) consider the impacts of climate change on the proposed action and its environmental impacts.

On August 1, 2016, the CEQ released final guidance for federal agencies on how to consider the impacts of their actions on climate change in their NEPA reviews (CEQ, 2016). Greenhouse gas (GHG) emissions estimated for the proposed federal action or project are recommended as the proxy for predicting impacts on climate. There is no numerical threshold for the significance of GHG emissions and their impacts, and the previously suggested 25,000-ton-per-year threshold for detailed quantification was removed when the CEQ guidance went from draft to final. Emphasis remains on a "rule of reason" for individual agencies to determine when quantitative vs. qualitative analyses is appropriate, how to consider the information in the NEPA review, and whether climate change is a potentially significant consideration in the decision making relative to the action. The guidance suggests that it is inappropriate to dismiss the climate change impacts of an action as "insignificant" because they are a small fraction of global anthropogenic emissions. Instead, the focus should be on comparison of alternatives and an analysis of mitigation options, within the rule of reason.

Agencies can use the NEPA process to reduce vulnerability to climate change impacts, adapt to changes in our environment, and mitigate the impacts of federal agency actions that are exacerbated by climate change.

4A.20.1.2 Greenhouse Gas Reporting Rule

In response to the fiscal year (FY) 2008 Consolidated Appropriations Act[14] which required USEPA to develop "…mandatory reporting of greenhouse gases above appropriate thresholds in all sectors of the economy….", USEPA issued the Greenhouse Gas Reporting Rule (74 FR 56260). The rule went into effect January 1, 2010, and requires reporting of GHG data and other relevant information from large sources and suppliers in the United States. The GHG Reporting Rule applies to fossil fuel and industrial GHG suppliers, vehicle and engine manufacturers, and all facilities that emit 25,000 metric tons of carbon dioxide equivalent (CO_2e) or more per year. Facility owners are required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The GHG Reporting Rule also mandates recordkeeping and administrative requirements in order for USEPA to verify annual GHG emissions reports.

4A.20.1.3 Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act

The USEPA Administrator signed the Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act on December 7, 2009, and the final rule became effective on January 14, 2010. The Endangerment Finding is based on Section 202(a) of the CAA, which states that the USEPA Administrator should regulate and develop standards for "emission[s] of air pollution from any class or classes of new motor vehicles or new motor vehicle engines, which in [its] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." The rule addresses Section 202(a) in two distinct findings. The first addresses whether or not the concentrations of the six key GHGs (i.e., CO_2, methane [CH_4], nitrous oxide [N_2O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF_6]) in the atmosphere which threaten the public health and welfare of current and future generations. The second addresses whether or not the combined emissions of GHGs from new motor vehicles and motor vehicle engines contribute to atmospheric concentrations of GHGs, and therefore, to the threat of climate change.

The observed and projected results of climate change (e.g., higher likelihood of heat waves, wildfires, droughts, sea level rise, and higher intensity storms) are a threat to the public health and welfare. Therefore, GHGs were found to endanger the public health and welfare of current and future generations.

The finding cites that in 2006, motor vehicles were the second largest contributor to domestic GHG emissions (24 percent of total) behind electricity generation. In 2005, the United States was responsible for 18 percent of global GHG emissions.

Although the Endangerment Finding does not directly establish reduction goals or mandates for GHG emissions, the finding would obligate USEPA to establish GHG emission standards for new motor vehicles, motor vehicle engines, and potential stationary sources (such as bioenergy production facilities) pursuant to the CAA. Any potential GHG emission standards resulting from the Endangerment Finding would be relevant to the GHG emission sources associated with Project operations.

[14] Appropriates funds for FY2012 for military activities including, but not limited to: military personnel, operations and maintenance, procurement, research and development, and other related agencies and defense programs.

4A.20.1.4 Greenhouse Gas Tailoring Rule

The revised GHG Tailoring Rule outlines air quality permitting requirements for existing and proposed stationary sources of GHGs, such as new source review under the Prevention of Significant Deterioration (PSD) regulations, Title V Operating Permit programs, and best available control measures (BACT). The first step in determining whether PSD permitting requirements apply under the Tailoring Rule is to determine whether the proposed project's GHG emissions are "subject to regulation." During Tailoring Rule Step 1, sources can only be subject to regulation if they are an "anyway source" or "anyway modification" (i.e., a source or modification, respectively, that is subject to PSD "anyway" due to its emissions of non-GHG pollutants). During Tailoring Rule Step 2 (i.e., on or after July 1, 2011), however, sources and modifications can become subject to PSD based solely on their GHG emissions. These are referred to as non-anyway sources and non-anyway modifications. For a new non-anyway source, GHGs are subject to regulation if PTE of the source is at least 100,000 tpy CO_2e. In the case of non-anyway modifications, GHG emissions are subject to regulation at an existing stationary source (that is not an "anyway source") if the source: (1) has a PTE of 100,000 tpy CO_2e, and (2) undertakes a modification that is projected to increase emissions by at least 75,000 tpy CO_2e[15] (USEPA, 2016).

The second step is to determine whether the source also has a PTE that is at or above the Clean Air Act mass-based major source threshold (i.e., either 100 or 250 tpy) for GHGs. If it does, both the source and the modification are treated as "major" for GHGs and must go through PSD review for GHGs. The non-GHG pollutant(s) at the source will also become subject to PSD if the modification results in an emissions increase at or above the significance level for that non-GHG pollutant. Thus, USEPA's longstanding "major for one, major for all" PSD policy also applies to GHG-only major sources, but only after GHGs are determined to be subject to regulation for the modification (USEPA, 2016).

4A.20.1.5 Federal Standards for Vehicle Fuel Economy

Climate change and its associated effects are being addressed through efforts at the federal level to improve fuel economy and energy efficiency. Federal agencies are also directed to participate in the Interagency Climate Change Adaptation Task Force, which is developing a national strategy for adapting to climate change.

USEPA, in conjunction with the National Highway Traffic Safety Administration (NHTSA), issued the first of a series of GHG emission standards for new cars and light-duty vehicles[16] in April 2010. The final combined standards that made up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards implemented by this program are expected to reduce GHG emissions by an estimated 960 million metric tons and save 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (USEPA, 2015).

On August 28, 2012, USEPA and NHTSA issued a joint final rulemaking to extend the national program for fuel economy standards to model year 2017 through 2025 passenger vehicles. Over the lifetime of the model years 2017 through 2025 standards, projections are that approximately 4 billion barrels of oil would be saved and 2 billion metric tons of GHG emissions would be eliminated (USEPA, 2015). These standards would cut GHG emissions and domestic oil use significantly. The agencies estimate that the combined standards would reduce carbon dioxide emissions by about 270 million metric tons and save

[15] See CFR at 40 CFR 52.21(b)(49)(v).

[16] http://www.c2es.org/federal/executive/vehicle-standards

about 530 million barrels of oil over the life of model year 2014 to 2018 heavy-duty vehicles (USEPA, 2015).

4A.20.2 State Plans, Policies, and Regulations

4A.20.2.1 California Environmental Quality Act Guidelines

CEQA requires lead agencies to consider the reasonably foreseeable adverse environmental effects of projects they are considering for approval.

In January 2009, OPR released preliminary draft CEQA Guidelines Amendments for GHGs consistent with the authority granted by CEQA and with CEQA case law. The amendments to the CEQA Guidelines for addressing GHG emissions were adopted on December 30, 2009, and became effective on March 18, 2010. The amended guidelines do not establish quantitative thresholds but instead provide qualitative thresholds for comparison. OPR's recommendations for GHGs in the Guidelines Amendments fall within the existing CEQA framework for environmental analysis, which calls for lead agencies to determine baseline conditions and levels of significance, and to evaluate mitigation measures. For these reasons, OPR neither identifies a threshold of significance for GHG emissions nor prescribes assessment methodologies or specific mitigation measures. The Guidelines Amendments also encourage lead agencies to consider many factors in performing a CEQA analysis, but to preserve the discretion that CEQA grants lead agencies to make their own determinations based on substantial evidence. The Guidelines Amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

4A.20.2.2 Senate Bill 97

SB 97 (Chapter 185, 2007, Greenhouse Gas Emissions) required OPR, by July 1, 2009, to prepare, develop, and transmit to the Resources Agency (now called the Natural Resources Agency), guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, including but not limited to, effects associated with transportation or energy consumption. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010[17], and OPR is required to periodically update the guidelines to incorporate new information or criteria established by ARB pursuant to AB 32.

On December 30, 2009, the California Natural Resources Agency adopted amended guidelines to aid public agencies and developers in complying with CEQA. The guidelines expressly require that GHG emissions be included in the environmental impact analysis under CEQA.

4A.20.2.3 Governor's Office of Planning and Research Technical Advisory on CEQA and Climate Change

In response to the requirements of SB 97, OPR released a technical advisory in June 2008 to provide interim advice to lead agencies regarding the analysis of GHGs in environmental documents. The advisory encourages lead agencies to identify and quantify the GHGs that could result from a proposed project, analyze the impacts of those emissions to determine whether they would be potentially

17 As directed by SB 97, the Natural Resources Agency adopted Amendments to the CEQA Guidelines for GHG emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the CCR. The Amendments became effective on March 18, 2010.

significant, and to identify feasible mitigation measures or alternatives that would reduce any adverse impacts to a less-than-significant level.

Without prescribing specific approaches, the advisory identified several methodologies for estimating project emissions and provided examples of mitigation measures that lead agencies could employ to reduce those emissions.

A consistent approach should be applied for the analysis of all such projects, and the analysis must be based on best available information. For these projects, compliance with CEQA entails three basic steps:

- Identify and quantify the GHG emissions
- Assess the significance of the impact on climate change
- If the impact is found to be significant, identify alternatives and/or mitigation measures that will reduce the impact below significance

The advisory discussed alternative project designs and locations that conserve energy and water, measures that reduce vehicle miles traveled by fossil-fueled vehicles, measures that contribute to established regional or programmatic mitigation strategies, and measures that sequester carbon to offset emissions from the project. The advisory recognized that mitigating GHGs at a project level may not be as effective as implementing a programmatic approach to mitigation. This approach requires public agencies to adopt a program of mitigation measures that apply broadly within the agency's jurisdiction, and are implemented at the project level when CEQA review is required.

4A.20.2.4 Assembly Bill 1493

AB 1493, Vehicular Emissions: Greenhouse Gases, 2002, requires ARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009 model year.

4A.20.2.5 Executive Order S-3-05

EO S-3-05, June 1, 2005, includes the following GHG reduction targets for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. The final emission target of 80 percent below 1990 levels would put the State's emissions in line with estimates of the required worldwide reductions needed to bring about long-term climate stabilization and avoidance of the most severe impacts of climate change. In 2006, these goals were further reinforced with the passage of AB 32.

4A.20.2.6 California Renewables Portfolio Standard Program

Established in 2002 pursuant to SB 1078 (required 20 percent renewable energy by 2017), accelerated in 2006 pursuant to SB 107 (accelerated 20 percent deadline to 2010), and expanded in 2011 pursuant to SB 2 (increased requirement to 33 percent by 2020), California's Renewables Portfolio Standard program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

4A.20.2.7 Assembly Bill 32 (California Global Warming Solutions Act of 2006)

AB 32, the California Global Warming Solutions Act of 2006, sets the same overall GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." In December 2008, ARB approved the initial Scoping Plan, which included a suite of measures to cut GHG emissions. Key elements of the initial Scoping Plan included the following:

- Expand and strengthen energy efficiency programs, including building and appliance standards.
- Increase electricity generation from renewable resources to at least 33 percent of the statewide electricity mix by 2020.
- Establish targets for passenger vehicle-related GHG emissions for regions throughout California and pursue policies and incentives to achieve those targets. Included with this strategy is support for the development and implementation of a high speed rail system to expand mobility choices and reduce GHG emissions.
- Adopt and implement measures pursuant to existing State laws and policies, including California's clean car standards and the low carbon fuel standard.
- Develop a cap-and-trade program to ensure the target is met, while providing flexibility to California businesses to reduce emissions at low cost.

In May 2014, ARB approved the first update to the Climate Change Scoping Plan (First Update). The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

The California Global Warming Solutions Act of 2006 (AB 32) has been implemented with a suite of complementary strategies that serve as a model going forward. California is on target for meeting the 2020 GHG emission reduction goal (to return to 1990 levels by 2020, representing a 25 percent reduction). Many of the GHG reduction measures (e.g., low carbon fuel standard, advanced clean car standards, and cap-and-trade program) have been adopted over the last 5 years, and implementation activities are ongoing (ARB, 2016).

4A.20.2.8 Senate Bill 1368

SB 1368 requires the California Energy Commission (CEC) and the California Public Utilities Commission (CPUC), in consultation with ARB, to set performance standards for climate change pollutant emissions resulting from electric generation for long-term procurement by investor-owned and local publicly-owned utilities. This bill applies to individual utilities and requires compliance when funding new, or rehabilitating older, power generation facilities.

4A.20.2.9 Executive Order S-1-07

EO S-1-07 (January 18, 2007) sets forth the low carbon fuel standard for California, requiring that carbon intensity of transportation fuels be reduced by at least 10 percent by 2020. EO S-1-07 mandates that ARB establish and certify such standards, including biennial reports on the goal progress.

4A.20.2.10 Executive Order S-13-08

EO S-13-08 required the Natural Resources Agency[18] to conduct public workshops on sea level rise and requested that the National Academy of Sciences (NAS) complete a California Sea Level Rise Assessment Report. This EO dictates that the California Ocean Protection Council shall work with DWR, CEC, California's coastal management agencies, and SWRCB to conduct a review of the NAS assessment every 2 years, or as necessary.

4A.20.2.11 Senate Bill 375

SB 375 (Chapter 728, 2008, Sustainable Communities and Climate Protection) requires ARB to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization for each region must then develop a Sustainable Communities Strategy that integrates transportation, land use, and housing policies to plan for the achievement of the emissions target for their region.

4A.20.2.12 Senate Bill 1771

SB 1771 (Chapter 1018, 2000) requires that the nonprofit public benefit corporation known as the California Climate Action Registry administer a voluntary GHG emissions registry. CEC is required to provide technical guidance to the Registry on protocol development and to periodically update the State's inventory of GHG emissions, as well as serve as an information clearinghouse on climate change issues. The Registry consists of organizations that are actively reducing their GHG emissions.

4A.20.2.13 Executive Order B-30-15

On April 29, 2015, the Governor issued EO B-30-15 establishing a mid-term GHG reduction target for California of 40 percent below 1990 levels by 2030. All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. ARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target and, therefore, is moving forward with the update process. The mid-term target will help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed for ongoing emissions reductions.

4A.20.2.14 Senate Bill 605

SB 605 (Chapter 523, 2014) requires ARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants by January 1, 2016.

4A.20.2.15 Senate Bill 350

SB 350 (Chapter 547, 2015) establishes targets to increase retail sales of renewable electricity to 50 percent by 2030 and double the energy efficiency savings in electricity and natural gas end uses by 2030.

[18] Includes the California Conservation Corps, the Department of Boating and Waterways, the Department of Conservation, CDFW, the Department of Forestry and Fire Protection, the Department of Parks and Recreation, the Department of Resources Recycling and Recovery, and DWR.

4A.20.2.16 Senate Bill 1383

SB 1383 (Chapter 295, 2016), signed by the Governor on September 19, 2016, requires ARB, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The new law also requires reductions of organic waste at landfills to 50 percent below 2014 standards by 2020, and 75 percent below 2014 by 2025. These latter targets are aggregate statewide and need not be met by each jurisdiction.

4A.20.2.17 Senate Bill 32 (California Global Warming Solutions Action of 2006: Emissions Limit) and Assembly Bill 197 (State Air Resources Board: Greenhouse Gases: Regulations)

In 2016, the California Legislature voted to extend the state's GHG emission reduction targets, while simultaneously passing an ARB reform bill. Senate Bill 32 (Chapter 249, 2016) establishes a new target for greenhouse gas (GHG) emissions reductions in the state at 40 percent of 1990 levels by 2030. This new target passed exactly one decade after AB 32, which required ARB to work to reduce California's statewide GHG emissions to 1990 levels by 2020. SB 32 was tied to Assembly Bill 197 (Chapter 250, 2016), a measure to increase legislative oversight of ARB, creating a Joint Legislative Committee on Climate Change Policies to ascertain facts and make recommendations to the Legislature concerning the state's programs, policies, and investments related to climate change. The bills became effective on January 1, 2017.

On January 20, 2017, ARB released "*The 2017 Climate Change Scoping Plan Update, the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target*". The proposed framework includes the following elements:

- 50 percent renewable energy
- 50 percent reduction in statewide vehicular petroleum use
- Doubling of energy efficiency in existing buildings
- Carbon sequestration in California's land base
- Aggressive reductions in short-lived climate pollutants, such as black carbon, fluorinated gases, and methane
- Climate adaptation strategy.

4A.20.2.18 California Climate Change Adaptation Strategy

Executive Order S-13-08 required the Natural Resources Agency to prepare the state's strategy to organize State government adaptation programs (California Natural Resources Agency, 2017a). The 2009 California Climate Adaptation Strategy report summarized the best known science on climate change impacts in the state (in the areas of public health, biodiversity and habitat, ocean and coastal resources, water management, agriculture; forestry, and transportation and energy infrastructure) to assess vulnerability, and outlined possible solutions that could be implemented within and across State agencies to promote resiliency. In 2014, the Natural Resources Agency issued an updated plan, titled, *Safeguarding California: Reducing Climate Risk*. In 2016, the Natural Resources Agency released *Safeguarding California: Implementation Action Plans* in accordance with Executive Order B-30-15, including an in-depth evaluation for the Water Sector (California Natural Resources Agency, 2016a and 2016b).

During preparation of a 2017 update to the Safeguarding California Plan, the Natural Resources Agency has released a high-level policy document showing preliminary recommendations for the State's plan to protect

California's people, natural resources, and built environment from climate change (California Resources Agency, 2017b). With regard to safeguarding California's built environment, recommendations related to water management include flood preparation, groundwater management for drought resiliency, supply diversification, water use efficiency, improvement of water storage capacity, climate considerations in water management decisions, protection and restoration of water resources and the ecosystems dependent on them, and other measures to improve California's climate change resilience.

4A.20.2.19 California Cap and Trade Program

The Cap and Trade Program is a market-based regulation that sets a firm statewide limit on sources responsible for 85 percent of California's GHG emissions, and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest-cost options to reduce emissions. California's Cap-and-Trade Regulation took effect on January 1, 2012, with amendments to the regulation effective September 1, 2012. The enforceable compliance obligation began on January 1, 2013.

4A.20.2.20 Climate Action Plan Phase 1: DWR's Greenhouse Gas Emissions Reduction Plan (GGERP)

DWR developed a GHG Emissions Reduction Plan to guide its project development and decision making with respect to energy use and GHG emissions. The Plan details DWR's future plans for reducing GHG emissions consistent with the GHG emissions reduction targets established in AB 32, EO S-3-05, and DWR's own policies; the aggressive steps DWR will take to reduce its emissions by more than 80 percent below 1990 levels; and the steps that DWR will take to monitor its progress toward achieving these reductions. The Plan shows how DWR will achieve its near-term goal of reduced emissions by 50 percent below 1990 levels by 2020, and how DWR will achieve its long-term goal of reduced emissions by 80 percent below 1990 levels by 2050.

4A.20.2.21 California Air Pollution Control Officers Association Guidance Documents on Addressing GHGs under CEQA and Quantifying GHG Mitigation Measures

The California Air Pollution Control Officers Association has prepared two reports intended as a resource for public agencies to address GHG emissions pursuant to CEQA and to quantify greenhouse gas mitigation measures. The reports are titled "CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, January 2008" and "Quantifying Greenhouse Gas Mitigation Measures, August 2010." These reports consider the application of thresholds and offer three alternative programmatic approaches toward determining whether GHG emissions are significant. These reports also evaluate tools and methodologies for estimating impacts and summarizing mitigation measures. They have been prepared with the understanding that the programs, regulations, policies, and procedures established by the ARB and other agencies to reduce GHG emissions may ultimately result in a different approach pursuant to CEQA than the strategies considered in these reports.

4A.20.3 Regional and Local Plans, Policies, and Regulations

Other than the federal and state programs described above, there are no regional or local plans, policies, and regulations applicable to greenhouse gas emissions in Glenn and Colusa counties.

4A.21 Chapter 26: Navigation, Transportation, and Traffic

4A.21.1 Federal Plans, Policies, and Regulations

4A.21.1.1 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

The 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) addresses challenges facing the U.S. transportation system, including improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment. Provisions of this act that pertain to federal highways are administered by FHWA. In California, FHWA is responsible for carrying out the federal highway programs in partnership with the California Department of Transportation (Caltrans) and local agencies to meet the nation's transportation needs.

4A.21.1.2 Surface Transportation Assistance Act

The Surface Transportation Assistance Act (STAA) of 1982 allows large trucks, referred to as STAA trucks, to operate on routes that are part of the national network. FHWA provides standards for STAA trucks based on the 23 CFR 658. These standards designate the minimum truck sizes that all states must allow on the national network. In California, the national network is under the jurisdiction of Caltrans.

4A.21.1.3 Federal Aviation Administration Airport Emergency Plan

The Federal Aviation Administration (FAA) is responsible for oversight of airports, air traffic control systems, and aircraft safety.

4A.21.2 State Plans, Policies, and Regulations

4A.21.2.1 California Department of Transportation Regulatory Authority over the California State Highway System

Caltrans has regulatory authority over the State highway system. Additionally, as part of a pilot program established by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Caltrans and FHWA have entered into a Memorandum of Understanding (MOU) in which certain authority pursuant to NEPA has been delegated to Caltrans in connection with the delivery of transportation projects. This MOU may apply to any potential effects to the State highway system from the Project.

4A.21.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to navigation, transportation, and traffic are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.22 Chapter 27: Noise

4A.22.1 Federal Plans, Policies, and Regulations

4A.22.1.1 Federal Guidance for Environmental Noise and Regulations for Specific Sources

Although no federal regulations limit overall environmental noise levels, federal guidance is provided by several federal agencies for specific sources (for example, aircraft or federally funded highways). The following federal agencies have such guidance: the Federal Energy Regulatory Commission (FERC), Federal Transit Administration (FTA), Federal Railroad Administration, FHWA, FAA, USEPA, and the U.S. Department of Housing and Urban Development.

Many federal agencies use guidelines developed by the FTA to address the human response to groundborne vibration with guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines allow 65 vibration decibel notation (VdB), referenced to 1 micro-inch per second and based on the root-mean-square velocity amplitude, for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, laboratory facilities); 80 VdB for residential uses and buildings where people normally sleep; and 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, offices) (FTA, 2006). Standards have also been established to address the potential for groundborne vibration to cause structural damage to buildings. These standards were developed by the Committee on Hearing, Bioacoustics, and Biomechanics at the request of USEPA. For fragile structures, the Committee on Hearing, Bioacoustics, and Biomechanics recommends a maximum limit of 0.25 inch per second peak particle velocity.

4A.22.2 State Plans, Policies, and Regulations

4A.22.2.1 California Noise Control Act of 1973

The California Noise Control Act of 1973 (Health and Safety Code §46000 to 46080) states that the Office of Noise Control should provide assistance to local communities in developing local noise control programs, and that the Office of Noise Control staff would also work with the OPR to provide guidance for the preparation of the required Noise Elements in city and county General Plans, pursuant to Government Code §65302(f). In preparing the Noise Element, a city or county must identify local noise sources and analyze and quantify, to the extent practicable, current and projected noise levels for various sources, including highways and freeways; passenger and freight railroad operations; ground rapid transit systems; commercial, general, and military aviation and airport operations; and other ground stationary noise sources. California Administrative Code, Title 4, has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure.

In response to this directive, the OPR *State of California General Plan Guidelines* document provides guidance regarding the acceptability of projects within specific day-night average level (Ldn) contours. The document does not present an adopted standard; rather, it provides guidelines for cities and counties to use in developing their own standards. Generally, residential uses (e.g., mobile homes) are considered to be acceptable in areas where exterior noise levels do not exceed 60 decibels, A-weighted (dBA) Ldn. Residential uses are normally unacceptable in areas where exterior noise levels exceed 70 dBA Ldn and conditionally acceptable in areas where levels are in the range of 55 to 70 dBA Ldn. Schools are normally acceptable in areas with exterior noise levels up to 70 dBA Ldn and normally unacceptable in areas with levels exceeding 70 dBA Ldn.

Commercial uses are normally acceptable in areas with exterior noise levels up to 70 dBA community noise equivalent level (CNEL). Levels between 67.5 and 77.5 dBA Ldn for commercial uses are conditionally acceptable, depending on the noise insulation features and the noise reduction requirements. The guidelines also present adjustment factors that may be used to determine noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

4A.22.2.2 California Administrative Code Title 4

California Administrative Code Title 4 has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure.

4A.22.2.3 California Government Code §65302(f)

California Government Code §65302(f) requires City and County General Plans to include a Noise Element. The purpose of a Noise Element is to guide future development to enhance future land use compatibility.

4A.22.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to navigation, transportation, and traffic are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.23 Chapter 28: Public Health and Environmental Hazards

4A.23.1 Federal Plans, Policies, and Regulations

Federal plans, policies, and regulations applicable to public health and environmental hazards are discussed in Sections 4A.1, 4A.2 and 4A.19 in addition to the following items.

4A.23.1.1 Federal Agencies Responsible for Regulating Water and Air Quality

USEPA provides guidance and oversight to the State of California in regulating water and air quality, as it does for other states and tribes. In California, this authority is delegated to SWRCB and ARB. Under the CWA, SWRCB regulates water quality at construction sites under the Spill Prevention, Control, and Countermeasures (SPCC) program. The SPCC program is designed to prevent or contain the discharge or threat of discharge of oil into navigable waters or adjoining shorelines. Regulations (40 CFR 112) under the CWA require facilities to prepare a written SPCC plan if they store oil and its release would pose a threat to navigable waters. The SPCC rule is applicable if a facility has a single oil aboveground storage tank (AST) with a capacity greater than 660 gallons, total petroleum storage (including ASTs, oil-filled equipment, and drums) greater than 1,320 gallons, or underground storage capacity greater than 42,000 gallons. Section 402(p) of the CWA established a framework for regulating contaminants in stormwater discharges under the NPDES program.

The SDWA authorizes USEPA to set national health-based standards for drinking water to protect against both naturally occurring and manufactured contaminants that may be found in drinking water. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources, including rivers, lakes, reservoirs, springs, and groundwater wells. In California, USEPA has authorized SWRCB to protect groundwater sources of drinking water, in part, through the Underground Injection

Control Program. This program regulates substances (including hazardous and radioactive substances) that can be injected or placed into the ground above or below a source of drinking water.

Regulations (40 CFR 68) under the CAA are designed to prevent accidental releases of hazardous materials. In California, USEPA has authorized ARB to implement the regulations that require facilities storing a threshold quantity or greater of listed regulated substances to develop a risk management plan, including hazard assessments and response programs to prevent accidental releases of listed chemicals. Section 112(r)(5) of the CAA discusses the regulated substances. These substances are listed in 40 CFR 68.130.

4A.23.1.2 Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C. 9601 et seq.) established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. The Superfund Amendments and Reauthorization Act of 1986 (SARA) amended CERCLA in 1986, making additions to the program such as new enforcement authorities and governance of hazardous substances. Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act.

4A.23.1.3 Hazardous Materials Transportation Act of 1975

The objective of the Hazardous Materials Transportation Act is to improve the regulatory and enforcement authority of the Secretary of Transportation to protect the Nation adequately against risks to life and property which are inherent in the transportation of hazardous materials in commerce. The act empowered the Secretary of Transportation to designate as hazardous material any particular quantity or form of a material that may pose an unreasonable risk to health and safety or property.

Regulations apply to any person who transports, or causes to be transported or shipped, a hazardous material; or who manufactures, fabricates, marks, maintains, reconditions, repairs, or tests a package or container which is represented, marked, certified, or sold by such person for use in the transportation in commerce of certain hazardous materials.

4A.23.1.4 Resource Conservation and Recovery Act, as Amended

The Resource Conservation and Recovery Act (RCRA) provides USEPA with the authority to control hazardous waste from cradle-to-grave. This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. The 1984 Federal Hazardous and Solid Waste Amendments to the RCRA focus on waste minimization and phasing out land disposal of hazardous waste, as well as corrective action for releases. Other mandates of this law include increased enforcement authority for USEPA, more stringent hazardous waste management standards, and a comprehensive Underground Storage Tank Program. The 1986 RCRA amendments enabled USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The RCRA also set forth a framework for the management of non-hazardous solid wastes. RCRA §3006 provides USEPA with the authority to authorize State hazardous waste programs. Once authorized, the State program operates in lieu of the federal program, although USEPA retains enforcement authority even after a State program has been authorized.

4A.23.1.5 Toxic Substances Control Act

The Toxic Substances Control Act of 1976 gives USEPA authority to require reporting, recordkeeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. The act addresses the production, import, use, and disposal of specific chemicals including PCBs, asbestos, radon, and lead-based paint.

4A.23.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to public health and environmental hazards are discussed in Sections 4A.2 and 4A.19 in addition to the following items.

4A.23.2.1 California Hazardous Substance Account Act of 1999

The California equivalent to CERCLA, the California Hazardous Substance Account Act, was adopted in 1999 and is codified in Division 20 of the Health and Safety Code, Chapter 6.8. It requires past and present owners and operators to assume liability for the remediation of hazardous waste sites within the State of California.

The Health and Safety Code Section 25356.1 requires the Department of Toxic Substances Control or the RWQCB to prepare or approve remedial action plans for sites where hazardous substances were released to the environment if they are listed as Superfund sites. The RWQCB has the responsibility to make decisions regarding cleanup and abatement goals and objectives for the protection of water quality.

4A.23.2.2 California Land Reuse and Revitalization Act

This 2004 regulation provides immunity from liability for hazardous materials response costs, or damage claims to innocent landowners, bona fide purchasers, and contiguous property owners.

Similar to the 1996 CERCLA amendments, to encourage site cleanup, the California Land Reuse and Revitalization Act of 2004 was codified in the Health and Safety Code, Division 20, Chapter 6.82, Sections 25395.60 to 25395.105. This chapter encourages the development and redevelopment of urban properties, provides processes that ensure remediation to protect public health, safety, and the environment, and relieves innocent owners, bona fide prospective purchasers, and owners of property adjacent to contaminated sites of liabilities and responsibilities that should be borne by those who caused or contributed to the contamination.

4A.23.2.3 California Underground Storage Tank Program

The California Underground Storage Tank Program is designed to prevent contamination from, and improper storage of, hazardous substances stored underground; to ensure that existing tanks are properly maintained, inspected, tested, and upgraded; and to ensure that new underground storage tanks meet appropriate standards. The California regulations are codified in the Health and Safety Code, Division 20, Chapter 6.7, Sections 25280 to 25299.8.

4A.23.2.4 Aboveground Petroleum Storage Act of 2007

California adopted a statewide program to determine the amount and type of hazardous substances being stored in aboveground tanks under the Health and Safety Code Division 20, Chapter 6.67, Sections 25270 to 25270.23.

4A.23.2.5 Toxic Injection Well Control Act of 1985

Injection of hazardous wastes is regulated pursuant to the Toxic Injection Well Control Act of 1985, Health and Safety Code Division 20, Chapter 6.5, Article 5.5, Sections 25159.10 to 25159.25. These regulations prohibit any injection of hazardous wastes into or above drinking water sources and prohibit injection of hazardous waste below drinking water sources, so as to prevent hazardous wastes from migrating to State drinking water, or otherwise endangering the environment.

4A.23.2.6 Safe Drinking Water and Toxics Enforcement Act

The Safe Drinking Water and Toxics Enforcement Act (SDWTEA) was passed in August of 2003 and contains prohibitions preventing the contamination of drinking water with chemicals known to cause cancer or reproductive toxicity. The SDWTEA also requires a reasonable warning be provided before any person is exposed to chemicals known to cause cancer or reproductive toxicity.

4A.23.2.7 California Hazardous Waste Control Act

Pursuant to this act, the State is authorized to administer a hazardous waste program equivalent to the federal RCRA program. Generation, transportation, treatment, storage, and disposal of characteristic and listed hazardous wastes are regulated pursuant to the Health and Safety Code, Division 20, Chapter 6.5, Sections 25100 to 25250.28.

As part of hazardous waste regulation, the California Health and Safety Code, Division 20, Chapter 6.5, Article 13, Sections 25250 through 25250.28 regulates PCBs in used oil, and prohibits used oil recycling or reuse if the oil contains 5 parts per million or greater of PCBs.

4A.23.2.8 California Solid Waste Program (Public Resources Code 43000 et seq., California Code of Regulations Titles 14 and 27)

Solid waste in California is regulated pursuant to Title 14, Division 7, and Title 27, Division 2 of the CCR. These regulations establish minimum standards for the handling and disposal of solid wastes. Both SWRCB and the California Integrated Waste Management Board have oversight and approval authority over local enforcement agencies that permit and take enforcement action on solid waste management facilities. The Public Resources Code Sections 43200 to 43219, 43020, 43020.1, 43021, 43030, 43101 and 43103 created and govern the local enforcement agencies.

4A.23.2.9 Hazardous Materials Release Response Plans and Inventory

California's equivalent to SARA was codified in the Health and Safety Code Division 20, Chapter 6.95, Sections 25500 to 25545. This code requires businesses to prepare plans relating to the handling and release or potential release of hazardous materials. It establishes minimum statewide standards for contents of plans, including location, type, quantity, and health risks of hazardous materials handled, used, stored, or disposed of, which could be accidentally released into the environment. It ensures firefighters, health officials, planners, public safety officers, health care providers, regulatory agencies, and other interested persons have access to the plans.

4A.23.2.10 California Health and Safety Code (Hazardous Materials)

Sections 25500 and 25531 of the California Health and Safety Code regulates business and area plans relating to the inventory, handling, and release or threatened release of hazardous materials. Health and Safety Code Section 25531 implements the federal regulations under the CAA for the prevention of accidental releases of regulated substances, with certain State-specific amendments.

4A.23.2.11 State Water Resources Control Board Resolution No. 92-49

SWRCB adopted Resolution Number 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges, under Water Code Section 13304. This resolution establishes policies and detailed procedures for all investigations and remediation of any discharge that causes, or threatens to cause, conditions of soil, water pollution, or nuisance associated with migration of waste or fluid from waste management units. The resolution also requires coordination among other agencies including the California Department of Toxic Substances Control, USEPA, and local governances.

4A.23.2.12 Fire Hazard Severity Zones

In accordance with Public Resources Code Sections 4201–4204 and California Government Code Sections 51175–51189, the California Department of Forestry and Fire Prevention (CAL FIRE) has mapped areas of potentially significant fire hazards based on fuels, terrain, weather, and other relevant factors. The zones are referred to as Fire Hazard Severity Zones and represent the risks associated with wildland fires. Under CAL FIRE regulations, areas within very high fire-hazard risk zones must comply with specific building and vegetation requirements intended to reduce property damage and loss of life within these areas.

4A.23.2.13 Mosquito Abatement Act of 1915

The 1915 Mosquito Abatement Act authorizes the formation of mosquito control districts in the State of California. It gives local governments the power to obtain revenues and form special districts to protect the public from the hazards of mosquito bites and mosquito-borne diseases.

4A.23.2.14 California Health and Safety Code (Mosquito and Vector Control District Law)

Sections 2040 and 2041 of the California Health and Safety Code, Division 3, Chapter 1, Article 4 authorize mosquito control districts to conduct surveillance programs and studies, and take any and all necessary and proper actions to prevent the occurrence of, and abate or control, vectors and vectorborne diseases.

Sections 2060 to 2065 authorize mosquito control districts to abate a public nuisance by notifying the owner of the property that is causing the public nuisance, requiring the owner of the property to abate the nuisance within a specified time, and requiring the owner of the property to prevent the recurrence of the public nuisance. These sections also authorize the mosquito control districts to impose fines for non-compliance, and state that the owner of the property shall pay for the cost of abatement.

4A.23.2.15 California Government Code: Title 3, Division 2, Part 2, Chapter 8, Article 3, Section 25842.5

This section of the California Government Code states that the Board of Supervisors may provide the same services and exercise the powers of mosquito abatement districts or vector control districts formed pursuant to the Mosquito Abatement and Vector Control District Law within both the unincorporated and incorporated territory of the county with the consent of the City Council and after holding a public

hearing on the proposal. Notice of the hearing must be given, pursuant to Section 6061, in a newspaper of general circulation in the county.

4A.23.2.16 California Mosquito-Borne Virus Surveillance and Response Plan

The California Mosquito-borne Virus Surveillance and Response Plan was developed to meet several objectives. Specifically, the Plan:

- Provides guidelines and information on the surveillance and control of mosquito-borne viruses in California, including West Nile, St. Louis encephalitis, and western equine encephalomyelitis viruses
- Incorporates surveillance data into risk assessment models
- Prompts surveillance and control activities associated with virus transmission risk level
- Provides local and State agencies with a decision support system
- Outlines the roles and responsibilities of local and State agencies involved with mosquito-borne virus surveillance and response

4A.23.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to public health and environmental hazards are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.24 Chapter 29: Public Services and Utilities

4A.24.1 Federal Plans, Policies, and Regulations

Federal regulatory agency involvement for public services and utilities is limited to review of a public service/utility provider's operation related to a specific resource area. Federal regulation can oversee issues such as the environment, energy, waterways, and fisheries. Associated agencies include USFWS, Reclamation, NMFS, USEPA, NRCS, USACE, U.S. Forest Service, USGS, and the Western Area Power Administration (WAPA).

4A.24.1.1 Critical Infrastructure Information Act of 2002

The Critical Infrastructure Information Act (CIIA) is a component of the Homeland Security Act of 2002, which specifically addresses protection of high risk targets. The CIIA requires the Department of Homeland Security to evaluate and protect critical infrastructure including food and water systems, agriculture, health systems, emergency services, information and telecommunication, banking and finance, energy, transportation, chemical and defense industries, and national monuments and icons. The CIIA exempts disclosure of information regarding critical infrastructure from Freedom of Information Act requests due to the Homeland Security Act.

4A.24.1.2 National Fire Protection Association 1710 Standard

This standard contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all-career fire departments[19]. The requirements address functions and objectives of fire department emergency service delivery, response capabilities, and resources. This standard also contains general requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident planning. This standard addresses the strategic and system issues involving the organization, operation, and deployment of a fire department and does not address tactical operations at a specific emergency incident.

The National Fire Protection Association 1710 Standard recommends a response time of 6 minutes or less for 90 percent of the time for initial fire suppression and/or emergency medical response. This takes into account dispatch time (1 minute), turnout time (1 minute), and travel time (4 minutes).

4A.24.2 State Plans, Policies, and Regulations

4A.24.2.1 Health and Safety Code Sections 13000 et seq.

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, and include regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

4A.24.2.2 Health and Safety Code Section 13145 and 13146

CAL FIRE provides wildland fire protection and implements the State Fire Marshal's regulations. The State Fire Marshal is apart from CAL FIRE executive staff. California Health and Safety Code Section 13145 and 13146 authorizes, with some exceptions, local fire chiefs, or their designees, to enforce State Fire Marshal regulations.

Section 13145 states that the State Fire Marshal, the chief of any city, county, or city and county fire department or district providing fire protection services, or a Designated Campus Fire Marshal, and their authorized representatives, shall enforce in their respective areas building standards relating to fire and panic safety adopted by the State Fire Marshal and published in the California Building Standards Code and other regulations that have been formally adopted by the State Fire Marshal for the prevention of fire or for the protection of life and property against fire or panic.

Section 13146 states that the responsibility for enforcement of building standards adopted by the State Fire Marshal and published in the California Building Standards Code relating to fire and panic safety and other regulations of the State Fire Marshal shall be as follows:

(a) The city, county, or city and county with jurisdiction in the area affected by the standard or regulation shall delegate the enforcement of the building standards relating to fire and panic safety and other regulations of the State Fire Marshal as they relate to R-3 dwellings, as described in Section 1201 of Part 2 of the California Building Standards Code, to either of the following:

[19] A department comprised 100 percent of career firefighters.

(1) The chief of the fire authority of the city, county, or city and county, or his or her authorized representative.

(2) The chief building official of the city, county, or city and county, or his or her authorized representative.

(b) The chief of any city, county, or city and county fire department or of any fire protection district, and their authorized representatives, shall enforce within its jurisdiction the building standards and other regulations of the State Fire Marshal, except those described in subdivision (a) or (d).

(c) The State Fire Marshal shall have authority to enforce the building standards and other regulations of the State Fire Marshal in areas outside of corporate cities and districts providing fire protection services.

(d) The State Fire Marshal shall have authority to enforce the building standards and other regulations of the State Fire Marshal in corporate cities and districts providing fire protection services upon request of the chief fire official or the governing body.

(e) The State Fire Marshal shall enforce the building standards and other regulations of the State Fire Marshal on all University of California campuses and properties administered or occupied by the University of California. For each university campus or property, the State Fire Marshal may delegate that responsibility to the person of his or her choice who shall be known as the Designated Campus Fire Marshal.

(f) Any fee charged pursuant to the enforcement authority of this section shall not exceed the estimated reasonable cost of providing the service for which the fee is charged, pursuant to Section 66014 of the Government Code.

4A.24.2.3 Health and Safety Code, Section 13801 et seq.

Fire districts are formed and regulated pursuant to the California Health and Safety Code, Section 13801 et seq., also known as the Fire Protection District Law of 1987. The enabling legislation authorizes fire districts to provide fire protection, ambulance, and rescue services. Recognizing that the State's communities have diverse needs and resources, it was the intent of the Legislature in enacting this law to provide a broad statutory authority for local officials.

4A.24.2.4 California Government Education Code Section 17620(a)

The governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities.

4A.24.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to public services and utilities are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.25 Chapter 30: Visual Resources

4A.25.1 Federal Plans, Policies, and Regulations

4A.25.1.1 National Scenic Byways Program

The National Scenic Byways Program is part of the U.S. Department of Transportation, FHWA. The program is a grass-roots collaborative effort established to help recognize, preserve and enhance selected roads throughout the United States. Since 1992, the National Scenic Byways Program has funded 3,049 projects for State and nationally designated byway routes in 50 states, Puerto Rico, and the District of Columbia. The U.S. Secretary of Transportation recognizes certain roads as All-American Roads or National Scenic Byways based on one or more archaeological, cultural, historic, natural, recreational, and scenic qualities.

4A.25.2 State Plans, Policies, and Regulations

4A.25.2.1 California Scenic Highway Program

The stated intent of the California Scenic Highway Program (Streets and Highways Code Sections 260 to 263) is to protect and enhance the natural scenic beauty of California's highways and adjacent corridors, through special conservation treatment. Official designation requires a local governing body to enact a Corridor Protection Program that protects and enhances scenic resources along the highway. A properly enforced program can:

- Protect the scenic corridor from encroachment of incompatible land uses such as junkyards, dumps, concrete plants, and gravel pits.
- Mitigate activities within the corridor that detract from its scenic quality by proper siting, landscaping, or screening.
- Prohibit billboards and regulate on-site business signs so that they do not detract from scenic views.
- Make development more compatible with the environment and in harmony with the surroundings.
- Regulate grading to prevent erosion and cause minimal alteration of existing contours and to preserve important vegetative features along the highway.
- Preserve views of hillsides by minimizing development on steep slopes and along ridgelines.
- Prevent the need for noise barriers (sound walls) by requiring a minimum setback for residential development adjacent to a scenic highway.

4A.25.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to visual resources are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.26 Chapter 31: Power Production and Energy

4A.26.1 Federal Plans, Policies, and Regulations

Federal plans, policies, and regulations applicable to power production and energy are discussed in Section 4A.19 in addition to the following items.

4A.26.1.1 Public Utility Regulatory Policies Act of 1978

The Public Utility Regulatory Policies Act (PURPA) established an independent electric generator market, allowing non-utility companies to build power plants and obligating utilities to purchase renewable and higher efficiency power and energy from independent producers at the price it would otherwise cost the utility to produce the power and energy itself, based on its "avoided cost." This act was largely responsible for the development of the renewable energy industry in the U.S. for the next 25 years.

4A.26.1.2 Electric Consumers Protection Act of 1986

The Electric Consumers Protection Act of 1986 specifies that in addition to the power and development purposes for which licenses are issued, FERC shall give "equal consideration" to power and water facility development, energy conservation, recreational uses, and protection, mitigation of damage to and enhancement of fish and wildlife (including spawning grounds and habitat) as well as preservation of other aspects of environmental quality [16 U.S.C. 797(f)].

4A.26.1.3 Energy Policy Acts of 1992 and 2005

The Energy Policy Acts established open access requirements for all transmission system owners and gave authority to FERC to mandate construction of new facilities to accommodate all access requests that are in the public's interest. The 1992 Act amended Section 211 of the FPA (16 U.S.C. 824j) subsection (a) to read: "Any electric utility, federal power marketing agency, or any other person generating electric energy for sale or resale, may apply to the Commission for an order under this subsection requiring a transmitting utility to provide transmission services (including any enlargement of transmission capacity necessary to provide such services) to the applicant…[and that] the Commission may issue such order if it finds that such order meets the requirements of Section 212, and would otherwise be in the public interest." The act specifies that the costs of such improvements can be recovered through the provider's rates and tariffs, but that "such rates, charges, terms, and conditions shall promote the economically efficient transmission and generation of electricity and shall be just and reasonable, and not unduly discriminatory or preferential."

The 2005 act authorized FERC to certify a national electric reliability organization to enforce mandatory reliability standards for the bulk-power system, under which the Western Electricity Coordinating Council has authority through the North American Electric Reliability Council and, ultimately, FERC to enforce electric reliability standards for bulk power transactions on the interconnected transmission system in the western half of North America. The 2005 act further strengthened transparency in the wholesale power market by granting FERC the authority to publish power, energy and interstate transmission service prices, and gave FERC approval authority over the sale or merger of entities under its jurisdiction greater than $10 million in value.

The 2005 act also repealed the requirement under PURPA that utilities must purchase power from all qualifying facilities and small power producers at a rate based on the utilities' avoided cost, providing FERC finds that a competitive electricity market exists and a qualifying facility has adequate access to

wholesale markets; and it repealed the Public Utility Holding Company Act of 1935, which restricted the structure of holding companies of investor-owned utilities, but mandated that utilities give access to their books and records to FERC and State utility regulators.

4A.26.1.4 Western Area Power Administration

WAPA is one of four power marketing administrations within the U.S. Department of Energy that markets and transmits electricity from multi-use water projects to retail power distribution companies and public authorities. WAPA markets and delivers hydroelectric power and related services within a 15-state region of the central and western United States. The transmission system carries electricity from 55 hydropower plants operated by Reclamation, USACE, and the International Boundary and Water Commission. Together, these plants have a capacity of 10,600 megawatts.

WAPA sells excess CVP capacity and energy that are supplementary to CVP internal needs to municipal utilities, irrigation districts, and institutions and facilities such as wildlife refuges, schools, prisons, and military bases at rates designed to recover CVP costs. As part of its marketing function, WAPA ensures that CVP project use loads are met at all times by using a mix of generation resources including CVP generation and other purchased resources. In marketing power surplus to the CVP project needs, WAPA follows a formal procedure for allocating CVP energy to preference customers. Preference power customers have 20-year contracts for their share of the CVP energy that is in excess of CVP needs. In addition to preference power customers, there are first preference customers. First preference customers are statutorily entitled to up to 25 percent of the generation built in their counties.

4A.26.2 State Plans, Policies, and Regulations

State plans, policies, and regulations applicable to power production and energy are discussed in Section 4A.20 in addition to the following items.

4A.26.2.1 Warren-Alquist State Energy Resources Conservation and Development Act

The Warren-Alquist State Energy Resources Conservation and Development Act (Warren-Alquist Act) was passed in 1974. The Warren-Alquist Act established CEC and granted it statutory authority. CEC forecasts future energy needs; promotes energy efficiency and conservation by setting the State's appliance and building efficiency standards; supports public interest energy research; develops renewable energy resources and alternative renewable energy technologies for buildings, industry, and transportation; licenses thermal power plants that are 50 megawatts or larger; and plans and directs state response to energy emergencies.

4A.26.2.2 The Electric Utility Industry Restructuring Act of 1996 (Assembly Bill 1890)

AB 1890 attempted to establish a direct access market for all customers of the investor-owned utilities (IOUs) in the State, allowing customers to purchase energy services from other utilities or third-party providers. It established the Power Exchange, through which all IOUs purchased all power and energy services on the day-ahead and day-of market, and established the Independent System Operator (ISO) as the operator of the State's privately owned transmission system, which includes contracting for various reliability services to maintain required reliability standards. The attempt failed, and the direct access and Power Exchange provisions were repealed later in 2001, but the California ISO still maintains operational control of the interconnected IOU transmission system, including contracting of reliability services, as well as conducts planning for transmission system improvements.

4A.26.2.3 California Integrated Energy Policy of 2002 (SB 1389)

SB 1389 requires CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. These assessments and forecasts will be used by CEC to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the State's economy, and protect public health and safety.

4A.26.2.4 California Clean Water Act 316(b) Once-Through Cooling Policy

On May 4, 2010, SWRCB adopted a Policy regarding the Use of Coastal and Estuarine Waters for Power Plant Cooling (Policy). The administrative record for the Policy was approved by the Office of Administrative Law on September 27, 2010. The Policy became effective on October 1, 2010 when the California Environmental Quality Act Notice of Decision was submitted to the Secretary of Resources.

The Policy establishes technology-based standards to implement federal Clean Water Act §316(b) and reduce the harmful effects associated with cooling water intake structures on marine and estuarine life. The Policy applies to the 19 existing power plants (including two nuclear plants) that have the ability to withdraw over 15 billion gallons per day from the State's coastal and estuarine waters using a single-pass system, also known as 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.

The Policy is implemented through an adaptive management strategy by which the standards can be achieved without disrupting the critical needs of the State's electrical generation and transmission system. A Statewide Advisory Committee on Cooling Water Intake Structures has been established to review implementation plans and schedules and provide recommendations to SWRCB at least annually. SWRCB will consider the Statewide Advisory Committee's recommendations and make modifications to the Policy, as appropriate. The permittees' NPDES permits will be reissued or modified to conform with the Policy.

4A.26.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to power production and energy are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary) in addition to the following item.

4A.26.3.1 Regional Clean Air Incentives Market (RECLAIM) Program for NO_x and SO_x of 1993

RECLAIM is a market incentive program designed to allow facilities flexibility in achieving emission reduction requirements for NO_x and oxides of sulfur (SO_x) pursuant to the Air Quality Management Plan using methods which include, but are not limited to: add-on controls, equipment modifications, reformulated products, operational changes, shutdowns, and the purchase of excess emission reductions.

4A.27 Chapter 34: Growth-Inducing Impacts

4A.27.1 Federal Plans, Policies, and Regulations

4A.27.1.1 National Environmental Policy Act Regulations

The CEQ regulations require an EIS to consider indirect effects of a project, which are often related to growth-inducing effects [40 CFR 1508.8(b)], as described below:

> *"Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems."*

4A.27.2 State Plans, Policies, and Regulations

4A.27.2.1 California Environmental Quality Act Guidelines

CEQA Guidelines [§15126.2(d)] require that an EIR evaluate the growth-inducing impacts of a project. The EIR must:

> *"Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects."*

> *"Discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."*

4A.27.3 Regional and Local Plans, Policies, and Regulations

Regional and local plans, policies, and regulations applicable to growth-inducing impacts are included in each county's General Plan (see Chapter 4 Environmental Compliance and Permit Summary).

4A.28 References

California Air Resources Board (ARB). 2017. *The 2017 Climate Change Scoping Plan Update, the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target.* January 20. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

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