

Proposed General Waste Discharge Requirements for Discharges from Irrigated Lands (Agricultural Order)

Final Environmental Impact Report

Volume 2 – Appendices

Prepared by: Horizon Water and Environment, LLC

SCH #2018021050

April 2021



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California Regional Water Quality Control Board, Central Coast Region

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Final Environmental Impact Report

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APPENDIX A
PROPOSED GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES
FROM IRRIGATED LANDS (AGRICULTURAL ORDER 4.0)

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APPENDIX B
COUNTY GENERAL PLAN GOALS & POLICIES

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Table B-1. Applicable Goals and Policies in County General Plans within the Central Coast Region

General Plan	Goals and Policies
<i>Agricultural Resources</i>	
Kern County	<p>Goal – Resource: (2) Protect areas of important mineral, petroleum, and agricultural resource potential for future use. (5) Conserve prime agriculture lands from premature conversion.</p> <p>Policies – Resource: (1) The County will support programs and policies that provide tax and economic incentives to ensure the long-term retention of agriculture, timber, and other resource lands. (21) The County shall encourage qualifying agricultural lands to participate in the Williamson Act program or Farmland Security Zone program.</p>
Monterey County	<p>Goal AG-1: Promote the long-term protection, conservation, and enhancement of productive and potentially productive agricultural land.</p> <p>Policy AG-1.1: Land uses that would interfere with routine and ongoing agricultural operations on viable farmlands designated as Prime, of Statewide Importance, Unique, or of Local Importance shall be prohibited.</p> <p>Policy AG-1.4: Viable agricultural land uses, including ancillary and support uses and facilities on farmland designated as Prime, of Statewide Importance, Unique, or of Local Importance shall be conserved, enhanced and expanded through agricultural land use designations and encouragement of large lot agricultural zoning, except as provided in a Community Plan. Agriculture shall be established as the top land use priority for guiding further economic development on agricultural lands.</p> <p>Goal AG-5: Ensure compatibility between the county’s agricultural uses and environmental resources.</p> <p>Policy AG-5.1: Programs that reduce soil erosion and increase soil productivity shall be supported.</p> <p>Policy AG-5.2: Policies and programs to protect and enhance surface water and groundwater resources shall be promoted but shall not be inconsistent with State and federal regulations.</p>
San Benito County	<p>Goal LU-3: To ensure the long-term preservation of the agricultural industry, agricultural support services, and rangeland resources by protecting these areas from incompatible urban uses and allowing farmers to manage their land and operations in an efficient, economically viable manner.</p> <p>Policy LU-3.2, Agricultural Integrity and Flexibility: The County shall protect the integrity of existing agricultural resources and provide for flexibility and economic viability of farming and ranching operations.</p> <p>Policy LU-3.3 Increased Agricultural Sustainability and Energy Efficiency: The County shall encourage and support farms, vineyards, and ranches that seek to implement programs that increase the sustainability of resources, conserve energy, and protect water and soil in order to bolster the local food economy, increase the viability of diverse family farms and improve the opportunities for farm workers.</p>

General Plan	Goals and Policies
	<p>Policy LU-3.4 Lower-Impact Agricultural Practices: The County shall encourage and support farms, vineyards, and ranches that use lower-impact agricultural and/or organic practices and shall recognize the benefits that a flourishing organic sector industry can provide.</p>
San Luis Obispo County	<p>Goal AG1: Support County Agricultural Production. (c) Support ongoing efforts by the agricultural community to develop new techniques and new practices.</p> <p>Goal AG2: Conserve Agricultural Resources. (a) Maintain the agricultural land base of the county by clearly defining and identifying productive agricultural lands for long-term protection. (b) Conserve the soil and water that are the vital components necessary for a successful agricultural industry in this county.</p> <p>Policy AGP9: Soil Conservation. (a) Encourage landowners to participate in programs that reduce soil erosion and increase soil productivity. (b) Emphasize the long-range benefits of proper drainage control and tillage, cropping, soil amendment, and grazing techniques to minimize soil erosion. (c) Assure that roads and drainage systems on county-controlled properties and facilities do not negatively impact agricultural lands and that the roads and systems are properly maintained.</p> <p>Policy AGP10: Water Conservation. (a) Encourage water conservation through feasible and appropriate “best management practices.” Emphasize efficient water application techniques; the use of properly designed irrigation systems; and the control of runoff from croplands, rangelands, and agricultural roads. (b) Encourage the U.C. Cooperative Extension to continue its public information and research program describing water conservation techniques that may be appropriate for agricultural practices in this county. Encourage landowners to participate in programs that conserve water.</p>
San Mateo County	<p>Goal 2.5, Minimize Depletion of Productive Soil Resources in Agricultural Areas: Minimize depletion of productive soil resources in agricultural areas through application of appropriate management practices.</p> <p>Policy 2.23, Regulate Excavation, Grading, Filling, and Land Clearing Activities Against Accelerated Soil Erosion: Regulate excavation, grading, filling, and land clearing activities to protect against accelerated soil erosion and sedimentation.</p> <p>Policy 2.27, Regulate Development and Agriculture Against Soil Contamination: Regulate development and agriculture to protect against soil contamination through measures which ensure proper use, storage, and disposal of toxic chemicals and pesticides.</p>

General Plan	Goals and Policies
	<p>Policy 2.28, Regulate Agricultural Activities Against Soil Depletion in Agricultural Areas: Regulate agricultural activities to minimize against soil depletion.</p> <p>Policy 9.28, Encourage Existing and Potential Agricultural Activities: (a) Encourage the continuance of existing agricultural and agriculturally-related activities.</p> <p>Policy 9.30, Development Standards to Minimize Land Use Conflicts with Agriculture: (a) Avoid to the greatest extent possible locating non-agricultural activities on soils with agricultural capability or lands in agricultural production. Regulations should place priorities according to the relative productive characteristics of the resource.</p> <p>Policy 9.31, Protection of Agricultural Lands: (a) Apply methods which assist in the retention and expansion of lands with agricultural activities such as density bonuses, enforceable restrictions (e.g., easements, contracts or deed restrictions), lease back of agricultural lands owned by public agencies, transfer of development rights, or other appropriate methods.</p>
Santa Barbara County	<p>Goal I: Santa Barbara County shall assure and enhance the continuation of agriculture as a major viable production industry in Santa Barbara County. Agriculture shall be encouraged. Where conditions allow, (taking into account environmental impacts) expansion and intensification shall be supported.</p> <p>Policy I.F. The quality and availability of water, air, and soil resources shall be protected through provisions including but not limited to, the stability of Urban/Rural Boundary Lines, maintenance of buffer areas around agricultural areas, and the promotion of conservation practices.</p> <p>Policy I.G. Sustainable agricultural practices on agriculturally designated land should be encouraged in order to preserve the long-term health and viability of the soil.</p> <p>Goal IV: Recognizing that agriculture can enhance and protect natural resources, agricultural operations should be encouraged to incorporate such techniques as soil conservation and sound fire risk reduction practices.</p> <p>Policy IV.C. Grading and brush clearing for new agricultural improvements on hillsides shall not cause excessive erosion or downslope damage.</p>
Santa Clara County	<p>Policy C-RC 37: Agriculture should be encouraged and agricultural lands retained for their vital contributions to the overall economy, quality of life, and for their functional importance to Santa Clara County, in particular: (a) local food production capability; (b) productive use land not intended for urban development; and (c) protection of public health and safety.</p> <p>Policy C-RC 41: In addition to general land use and development controls, agricultural areas of greatest potential long-term viability should be identified and formally designated for permanent preservation.</p>

General Plan	Goals and Policies
Santa Cruz County	<p>Goal 5.13, Commercial Agricultural Land: To maintain for exclusive agricultural use those lands identified on the County Agricultural Resources Map as best suited to the commercial production of food, fiber and ornamental crops and livestock and to prevent conversion of commercial agricultural land to non-agricultural uses. To recognize that agriculture is a priority land use and to resolve policy conflicts in favor of preserving and promoting agriculture on designated commercial agricultural lands.</p> <p>Policy 5.13.12, Energy Efficiency and Resource Protection: Encourage energy-efficient and resource protection agricultural practices such as organic farming, integrated pest management, biodynamic cultivation and utilization of agricultural wastes for on-site energy production.</p> <p>Policy 5.13.13, Composting Agricultural Wastes: Encourage the composting of agricultural wastes and the use of composts in agriculture production, as a means of reducing irrigation water demand and reducing solid waste disposal requirements. Allow the commercial composting of source separated organic material such as yard waste on agricultural land with an approved development permit, including coastal development permits, subject to health and water quality requirements.</p>
Ventura County	<p>Goal 3.2.1 – Agricultural: (1) Recognize the farmlands within the County that are critical to the maintenance of the local agricultural economy and which are important to the State and Nation for the production of food, fiber and ornamentals. (2) Preserve and protect agricultural lands as a nonrenewable resource to assure their continued availability for the production of food, fiber and ornamentals. (6) Establish policies and regulations which encourage agricultural land to remain in farming and related uses.</p> <p>Policy 1.6.2: (2) Hillside agricultural grading shall be regulated by the Public Works Agency through the Hillside Erosion Control Ordinance.</p>
Air Quality	
Kern County	<p>Policy 1.10.2, Air Quality: In considering discretionary projects for which an Environmental Impact Report must be prepared pursuant to the California Environmental Quality Act, the appropriate decision-making body, as part of its deliberations, will ensure that: (20) The County shall include fugitive dust control measures as a requirement for discretionary projects and as required by the adopted rules and regulations of the San Joaquin Valley Unified Air Pollution Control District and the Kern County Air Pollution Control District on ministerial permits. (21) The County shall support air districts' efforts to reduce PM10 and PM2.5 emissions. (22) Kern County shall continue to work with the San Joaquin Valley Unified Air Pollution Control District and the Kern County Air Pollution Control District toward air quality attainment with federal, State, and local standards.</p>

General Plan	Goals and Policies
Monterey County	<p>Goal OS-10: Provide for the protection and enhancement of Monterey County’s air quality without constraining routine and ongoing agricultural activities.</p> <p>Policy OS-10.3: Monterey County shall promote conservation of naturally vegetated and forested areas for their air purifying functions.</p> <p>Policy OS-10.7: Use of the best available technology for reducing air pollution emissions shall be encouraged.</p>
San Benito County	<p>Goal HS-5: To improve local and regional air quality to protect residents from the adverse effects of poor air quality.</p> <p>Policy HS-5.4, PM10 Emissions from Construction: The County shall require developers to reduce particulate matter emissions from construction (e.g., grading, excavation, and demolition) consistent with standards established by the Monterey Bay Unified Air Pollution Control District</p>
San Luis Obispo County	<p>Goal AQ 2: The County will be a leader in implementing air quality programs and innovations.</p> <p>Goal AQ 3: State and federal ambient air quality standards will, at a minimum, be attained and maintained.</p> <p>Policy AQ 3.2, Attain air quality standards: Attain or exceed federal or state ambient air quality standards (the more stringent if not the same) for measured criteria pollutants.</p> <p>Policy AQ 3.7, Reduce vehicle idling: Encourage the reduction of heavy-vehicle idling throughout the county, particularly near schools, hospitals, senior care facilities, and areas prone to concentrations of people, including residential areas.</p> <p>Policy AQ 3.8, Reduce dust emissions: Reduce PM10 and PM2.5 emissions from unpaved and paved County roads to the maximum extent feasible.</p> <p>Policy AQ 4.5, Carbon Sequestration: Reduce net carbon emissions through the preservation, protection, and enhancement, as appropriate, of the county’s terrestrial and aquatic carbon sequestration resources, including the county’s lakes, soils, and native forests, trees, and plants.</p>
San Mateo County	<p>Goal 5: Encourage the use of clean, low-emissions vehicles and equipment.</p>
Santa Barbara County	<p>None.</p>
Santa Clara County	<p>None.</p>

General Plan	Goals and Policies
Santa Cruz County	Goal 5.18, Air Resources: To improve the all- quality of Santa Cruz County by meeting or exceeding state and federal ambient air quality standards, protect County residents from the health hazards of air pollution, protect agriculture from air pollution induced crop losses and prevent degradation of the scenic character of the area.
Ventura County	Goal 1.2.1: (1) Diligently seek and promote a level of air quality that protects public health, safety, and welfare, and seek to attain and maintain the State and Federal Ambient Air Quality standards.
Biological Resources	
Kern County	<p>Policy 1.10.5, Threatened and Endangered Species: (27) Threatened or endangered plant and wildlife species should be protected in accordance with State and federal laws. (31) The County will seek cooperative efforts with local, State, and federal agencies to protect listed threatened and endangered plant and wildlife species through the use of conservation plans and other methods promoting management and conservation of habitat lands.</p> <p>Policy 1.10.10, Oak Tree Conservation: (66) Promote the conservation of oak tree woodlands for their environmental value and scenic beauty.</p>
Monterey County	<p>Goal OS-5: Conserve listed species, critical habitat, habitat and species protected in area plans; avoid, minimize and mitigate significant impacts to biological resources.</p> <p>Policy OS-5.11: Conservation of large, continuous expanses of native trees and vegetation shall be promoted as the most suitable habitat for maintaining abundant and diverse wildlife.</p> <p>Policy OS-5.22: In order to preserve riparian habitat, conserve the value of streams and rivers as wildlife corridors and reduce sediment and other water quality impacts of new development, the county shall develop and adopt a Stream Setback Ordinance.</p>
San Benito County	<p>Goal NCR-2: To protect and enhance wildlife communities through a comprehensive approach that conserves, maintains, and restores important habitat areas.</p> <p>Policy NCR-2.1, Coordination for Habitat Preservation: The County shall work with property owners and Federal and State agencies to identify feasible and economically-viable methods of protecting and enhancing natural habitats and biological resources in the county.</p> <p>Policy NCR-2.5, Mitigation for Wetland Disturbance or Removal: The County shall encourage the protection of the habitat value and biological functions of oak woodlands, native grasslands, riparian and aquatic resources, and vernal pools and wetlands. The County shall require that development avoid encroachment and require buffers around these habitats to the extent practicable. The County shall further require mitigation for any development proposals that have the potential to reduce these habitats.</p>

General Plan	Goals and Policies
San Luis Obispo County	<p>Goal BR 1: Native habitat and biodiversity will be protected, restored, and enhanced.</p> <p>Policy BR 1.8, Effects of Major Ecosystems: Designation and management of a Major Ecosystem Network will be coordinated with agricultural uses on private lands that are either within or adjacent to the network.</p> <p>Policy BR 1.11, Protect Wildlife Nursery Areas and Movement Corridors: Identify, protect, and enable the management of connected habitat areas for wildlife movement. Features of particular importance to wildlife for movement may include, but are not limited to, riparian corridors, shorelines of the coast and bay, and ridgelines. Identification and designation of wildlife corridors will not interfere with agricultural uses on private lands.</p> <p>Goal BR 2: Threatened, rare, endangered, and sensitive species will be protected.</p> <p>Policy BR 2.10, Integrated Pest Management: Encourage the use of integrated pest management practices.</p> <p>Goal BR 4: The natural structure and function of streams and riparian habitat will be protected and restored.</p> <p>Policy BR 4.4, Vegetated Treatment Systems (Low Impact Development Techniques): Promote use and maintenance of engineered, vegetated treatment systems such as constructed wetlands, vegetated swales, or vegetated filter strips where they will reduce nonpoint source pollution from private and public development.</p> <p>Policy BR 4.5, Encourage Stream Preservation on Private Lands: Encourage private landowners to protect and preserve stream corridors in their natural state and to restore stream corridors that have been degraded.</p> <p>Goal BR 5: Wetlands will be preserved, enhanced, and restored.</p> <p>Policy BR 5.4, Wetlands on Agricultural Lands: Support use of best management practices and proper range use to minimize impacts to wetlands on agricultural lands.</p> <p>Goal BR 6: The County's fisheries and aquatic habitats will be preserved and improved.</p> <p>Policy BR 7.4, Sedimentation: Support efforts on public and private lands to keep Chorro Creek, Los Osos Creek, and other watercourses free of excessive sediment and other pollutants to maintain freshwater flow into the Morro Bay National Estuary and the Monterey Bay National Marine Sanctuary, nurture steelhead trout, and support other plant and animal species. On County-owned lands, implement Best Management Practices in order to reduce sediment transport to coastal waters.</p>
San Mateo County	<p>Goal 1.1, Conserve, Enhance, Protect, Maintain and Manage Vegetative, Water, Fish and Wildlife Resources: Promote the conservation, enhancement, protection, maintenance and managed use of the County's Vegetative, Water, Fish and Wildlife Resources.</p> <p>Goal 1.2, Protect Sensitive Habitats: Protect sensitive habitats from reduction in size or degradation of the conditions necessary for their maintenance.</p>

General Plan	Goals and Policies
	<p>Policy 1.25, Protect Vegetative Resources: Ensure that development will: (1) minimize the removal of vegetative resources and/or; (2) protect vegetation which enhances microclimate, stabilizes slopes or reduces surface water runoff, erosion or sedimentation; and/or (3) protect historic and scenic trees.</p> <p>Policy 1.26, Protect Water Resources: Ensure that development will: (1) minimize the alteration of natural water bodies, (2) maintain adequate stream flows and water quality for vegetative, fish and wildlife habitats; (3) maintain and improve, if possible, the quality of groundwater basins and recharge areas; and (4) prevent to the greatest extent possible the depletion of groundwater resources.</p>
Santa Barbara County	None.
Santa Clara County	<p>Habitat and Biodiversity Goals: (2) Protect the Biological Integrity of Critical Habitat Areas; (3) Encourage Habitat Restoration.</p> <p>Policy C-RC 27: Habitat types and biodiversity within Santa Clara County and the region should be maintained and enhanced for their ecological, functional, aesthetic, and recreational importance.</p>
Santa Cruz County	Goal 5.2, Riparian Corridors and Wetlands: To preserve, protect and restore all riparian corridors and wetlands for the protection of wildlife and aquatic habitat, water quality, erosion control, open space, aesthetic and recreational values and the conveyance and storage of flood waters.
Ventura County	Goal 1.5.1: Identify, preserve and protect significant biological resources in Ventura County from incompatible land uses and development. Significant biological resources include endangered, threatened or rare species and their habitats, wetland habitats, coastal habitats, wildlife migration corridors that facilitate habitat connectivity and wildlife movement, and locally important species/communities.
Cultural Resources	
Kern County	Policy 1.10.3, Archaeological, Paleontological, Cultural, and Historical Preservation: (25) The County will promote the preservation of cultural and historic resources which provide ties with the past and constitute a heritage value to residents and visitors.
Monterey County	Goal OS-6: Encourage the conservation and identification of the county's archaeological resources.
San Benito County	Goal NCR-7: To protect, preserve, and enhance the unique cultural and historic resources in the county.

General Plan	Goals and Policies
San Luis Obispo County	<p>Goal CR 3: The county's historical resources will be preserved and protected.</p> <p>Goal CR 4: The county's known and potential Native American, archaeological, and paleontological resources will be preserved and protected.</p> <p>Policy CR 2.3, "Living Resources": Preserve historic sites and buildings and recognize cultural and archaeological resources as "living resources" that are part of a continuing culture.</p> <p>Policy CR 3.1, Historic Preservation: The County will provide for the identification, protection, enhancement, perpetuation, and use of features that reflect the County's historical, architectural, Native American, archaeological, cultural, and aesthetic heritage.</p> <p>Policy CR 4.4, Development Activities and Archaeological Sites: Protect archaeological and culturally sensitive sites from the effects of development by avoiding disturbance where feasible. Avoid archaeological resources as the primary method of protection.</p>
San Mateo County	<p>Goal 5.1, Historic Resource Protection: Protect historic resources for their historic, cultural, social and educational values and the enjoyment of future generations.</p> <p>Goal 5.3, Protection of Archaeological/Paleontological Sites: Protect archaeological/paleontological sites from destruction in order to preserve and interpret them for future scientific research, and public educational programs.</p>
Santa Barbara County	None.
Santa Clara County	<p>Heritage Resource Goals: (2) Prevent or Minimize Adverse Impacts on Heritage Resources; (3) Restore, Enhance and Commemorate Resources.</p> <p>Policy C-RC 49: Cultural heritage resources within Santa Clara County should be preserved, restored wherever possible, and commemorated as appropriate for their scientific, cultural, historic and place values.</p>
Santa Cruz County	<p>Goal 5.19: To protect and preserve archaeological resources for their scientific, educational and cultural values, and for their value as local heritage.</p> <p>Policy 5.19.3, Development Around Archaeological Resources: Protect archaeological resources from development by restricting improvements and grading activities to portions of the property not containing these resources, where feasible, or by preservation of the site through project design and/or use restrictions, such as covering the site with earth fill to a depth that ensures the site will not be disturbed by development, as determined by a professional archaeologist.</p>

General Plan	Goals and Policies
Ventura County	<p>Goals 1.8.1: (1) Identify, inventory, preserve and protect the paleontological and cultural resources of Ventura County (including archaeological, historical and Native American resources) for their scientific, educational and cultural value.</p> <p>Policy 3: Mitigation of significant impacts on cultural or paleontological resources shall follow the Guidelines of the State Office of Historic Preservation, the State Native American Heritage Commission, and shall be performed in consultation with professionals in their respective areas of expertise.</p>
Economics	
Kern County	<p>Policy 1.10.9, Economic Development: (50) Employ land use policies that protect the County's businesses from physical degradation and ensure orderly growth, thereby, sustaining opportunities for current and future generations to enjoy economic vitality. (59) Support efforts to promote the County and its cities as an area with a positive business climate for commerce and industry. (64) Provide infrastructure and coordinate local land use, regulatory practices and job training to foster and maintain a robust economy.</p>
Monterey County	<p>Goal ED-1: Support the development of jobs and business opportunities in Monterey County.</p> <p>Policy ED-1.3: The County shall encourage the growth of key industries and targeted clusters that result in the creation of career ladder jobs to increase the County's average wage level shall be supported. Linkage among identified clusters shall be encouraged.</p>
San Benito County	<p>Goal ED-1: To sustain the long-term economic wellbeing of the county by promoting economic sustainability and diversification.</p> <p>Policy ED-1.6, Agricultural Base Diversification: The County shall diversify the existing agricultural base by encouraging strong relationships between traditional agricultural industries and emerging agricultural-related industries, and emphasizing the expansion of value-added agricultural products in the county.</p> <p>Goal ED-2: To support and promote the retention and expansion of existing businesses within the county.</p> <p>Policy ED-4.3, Sustainable Wineries: The County shall encourage the wine industry to adopt sustainable winemaking practices.</p>
San Luis Obispo County	<p>Goal EE 1: Promote a strong and viable local economy by pursuing policies that balance economic, environmental, and social needs of the county.</p> <p>Goal EE 2: Retain and enhance a diverse economy.</p>

General Plan	Goals and Policies
	Policy EE 2.2: Consider strategies to enable agriculture to remain economically viable such as continuing to allow non-agricultural activities and uses in rural areas where supportive of agricultural uses, avoiding land use conflicts and consistent with the General Plan.
San Mateo County	None.
Santa Barbara County	Agricultural Element Goal: (1) Santa Barbara County shall assure and enhance the continuation of agriculture as a major viable production industry in Santa Barbara Country. Agriculture shall be encouraged. Where conditions allow, (taking into account environmental impacts) expansion and intensification shall be supported.
Santa Clara County	Policy C-RC 43: Long term economic viability of agricultural activities shall be maintained and enhanced by providing: (a) improved markets for locally grown products; (b) property tax relief; (c) appropriate application of “renewable,” organic agriculture and other innovative, cost-efficient growing techniques; and (d) adequate agricultural worker housing supply.
Santa Cruz County	Goal 5.1.3: To maintain for exclusive agricultural use those lands identified on the County Agricultural Resources Map as best suited to the commercial production of food, fiber and ornamental crops and livestock and to prevent conversion of commercial agricultural land to non-agricultural uses. To recognize that agriculture is a priority land use and to resolve policy conflicts in favor of preserving and promoting agriculture on designated commercial agricultural lands.
Ventura County	Goals 3.2.1: (1) Promote the economic viability of agricultural lands by assisting agricultural producers and establishing zoning policies that support long term investments in agriculture. (6) Establish policies and regulations which encourage agricultural land to remain in farming and related uses.
Energy	
Kern County	None.
Monterey County	Goal OS-9: Promote efficient energy use. Policy OS-9.1: The use of solar, wind and other renewable resources for agricultural, residential, commercial, industrial, and public building applications shall be encouraged.
San Benito County	Goal NCR-6: To increase energy independence and reduce greenhouse gas emissions through the use of renewable energy sources and improved energy conservation and efficiency.

General Plan	Goals and Policies
	Policy NCR-6.1, Local Renewable Energy: The County shall strive to increase the supply of locally produced, renewable energy (e.g., solar, wind, geothermal, and biomass) in order to promote energy independence and efficiency.
San Luis Obispo County	<p>Goal E 3: Energy efficiency and conservation will be promoted in both new and existing development.</p> <p>Goal E 6: The use of renewable energy resources will be increased.</p> <p>Policy E 3.6, Energy conservation in agriculture: Promote state-of-the-art energy conservation and efficiency in agriculture.</p> <p>Policy E 6.3, Small-scale renewable energy resources: Develop renewable energy resources in the county, including the safe, effective, and efficient use of small wind energy systems, solar power systems, passive solar buildings, and other renewable energy systems designed for onsite home, farm, and commercial use.</p>
San Mateo County	<p>Goal 2: Maximize energy efficiency in new and existing development.</p> <p>Goal 3: Promote the expansion of the use of renewable energy supplies.</p> <p>Policy 3.2: Promote the production of appropriate off-site renewable energy for use in the unincorporated county.</p>
Santa Barbara County	<p>Goal 4, Water Use and Solid Waste: Increase the efficiency of water and resource use to reduce energy consumption associated with various phases of using resources (pumping, distribution, treatment, heating, etc.).</p> <p>Policy 4.6, Water/Energy-Efficient Irrigation: The County shall continue to support the programs of the Soil Conservation Service, Resource Conservation District, U.C. Cooperative Extension/Farm Advisor, utility companies, and others that address efficient irrigation because of their associated energy benefits.</p> <p>Goal 5, Alternative Energy: Encourage the use of alternative energy for environmental and economic benefits, and encourage opportunities for businesses that develop or market alternative energy technologies</p>
Santa Clara County	<p>Goal 2: Conserve Energy in Residential and Other Sectors.</p> <p>Policy C-RC 77: Energy efficiency and conservation efforts in the transportation, industrial, commercial, residential, agricultural and public sectors shall be encouraged at the local, county (sub-regional), and regional level.</p> <p>Policy C-RC 83: Industrial and agricultural processes should be modified wherever feasible to take advantage of energy savings, to reduce operational costs, and to enhance competitiveness.</p>
Santa Cruz County	Policy 5.13.12, Energy Efficiency and Resource Protection: Encourage energy-efficient and resource protection agricultural practices such as organic farming, integrated pest management, biodynamic cultivation and utilization of agricultural wastes for on-site energy production.

General Plan	Goals and Policies
	Policy 5.15.5, Maximum Energy Efficiency: Encourage the use of alternative energy sources such as passive solar design techniques to maximize energy efficiency, when feasible.
Ventura County	Goal 1.9.1: (2) Encourage the use of renewable sources of energy and energy conservation techniques in new development; (4) Encourage increased fuel efficiency of vehicles and decreased number and length of vehicle trips.
Greenhouse Gas Emissions	
Kern County	None.
Monterey County	Policy OS-10.10: Within 24 months of the adoption of the General Plan, Monterey County shall develop and adopt a Greenhouse Gas (GHG) Reduction Plan with a target to reduce emissions by 2020 to a level that is 15% less than 2005 emission levels.
San Benito County	<p>Goal NCR-6: To increase energy independence and reduce greenhouse gas emissions through the use of renewable energy sources and improved energy conservation and efficiency.</p> <p>Policy HS-5.7, Greenhouse Gas Emission Reductions: The County shall promote greenhouse gas emission reductions by supporting carbon efficient farming methods (e.g., methane capture systems, no-till farming, crop rotation, cover cropping); supporting the installation of renewable energy technologies; and protecting grasslands, open space, oak woodlands, riparian forest and farmlands from conversion to urban uses.</p> <p>Policy HS-5.8, GHG Reduction Targets: The County acknowledges that the state endeavors to achieve 1990 greenhouse gas (GHG) emission levels, and establish a long-term goal to reduce GHG emissions by 80 percent below 1990 levels by 2050. The County will encourage projects that support these goals, recognizing that these goals can be met only if the state succeeds in decarbonizing its fuel supply.</p>
San Luis Obispo County	<p>Goal AQ-4: Greenhouse gas emissions from county operations and communitywide sources will be reduced from baseline levels by a minimum of 15% by 2020.</p> <p>Policy AQ 4.1, Reduce greenhouse gas emissions: Implement and enforce State legislative or regulatory standards, policies, and programs designed to reduce greenhouse gas emissions.</p> <p>Policy AQ 4.2, Identify greenhouse gas emissions: Quantify, reduce, and mitigate greenhouse gas emissions</p>
San Mateo County	<p>Goal 1: Promote and implement policies and programs to reduce county-wide greenhouse gas emissions.</p> <p>Goal 7: Support sustainable agricultural practices.</p> <p>Policy 7.1: Collaborate with partners to encourage voluntary sustainable agricultural practices that reduce greenhouse gas emissions.</p>

General Plan	Goals and Policies
Santa Barbara County	<p>Policy 5.2, Alternative Energy Technologies: The County shall encourage the use of alternative energy technology in appropriate new and existing development.</p> <p>Policy 8.3, ECAP Implementation: The County shall implement the Energy and Climate Action Plan (ECAP) to reduce greenhouse gas (GHG) emissions from community-wide sources by a minimum of 15% from the 2007 baseline emissions by 2020.</p>
Santa Clara County	None.
Santa Cruz County	Policy 5.18.9, Greenhouse Gas Reduction: Implement state and federal legislation promoting the national goal of 35% reduction of carbon dioxide and other greenhouse gases by 2000.
Ventura County	None.
<i>Hazards and Hazardous Materials</i>	
Kern County	<p>Goal 2.5.4, Transportation of Hazardous Materials: Reduce risk to public health from transportation of hazardous materials.</p> <p>Goal 4.8: Reduce the public's exposure to fire, explosion, blowout, and other hazards associated with the accidental release of crude oil, natural gas, and hydrogen sulfide gas.</p>
Monterey County	<p>Goal S-3: Ensure effective storm drainage and flood control to protect life, property and the environment.</p> <p>Goal S-4: Minimize the risks from fire.</p>
San Benito County	<p>Goal HS-2: To minimize the loss of life, injury, or damage to property as a result of floods in the county.</p> <p>Goal HS-4: To minimize the risk of wildland and urban fire hazards.</p> <p>Goal HS-6: To safeguard and protect the health and safety of people, the environment, and personal property from the potential dangers associated with a hazardous materials release.</p> <p>Policy HS-6.1, Hazardous Materials Storage and Disposal: The County shall require proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fires, or the escape of harmful gases, and to prevent individually innocuous materials from combining to form hazardous substances, especially at the time of disposal.</p> <p>Policy HS-6.5, Transportation Routes: The County shall restrict transport of hazardous materials within San Benito County to designated routes.</p>

General Plan	Goals and Policies
San Luis Obispo County	<p>Goal S-3: Reduce damage to structures and the danger to life caused by flooding, dam inundation and tsunami.</p> <p>Goal S-4: Reduce the threat to life, structures and the environment caused by fire.</p> <p>Policy S-26, Hazardous Materials: Reduce the potential for exposure to humans and the environment by hazardous substances.</p> <p>Policy S-27, Pesticide Hazards: Reduce the potential for pesticide exposure to humans and the environment.</p>
San Mateo County	<p>Goal 16.47, Strive to Protect Life, Property, and the Environment from Hazardous Material Exposure: Strive to protect public health and safety, environmental quality, and property from the adverse effects of hazardous materials through adequate and responsible management practices.</p> <p>Goal 16.48, Strive to Ensure Responsible Hazardous Waste Management: Strive to ensure that hazardous waste generated within San Mateo County is stored, treated, transported and disposed of in a legal and environmentally safe manner so as to prevent human health hazard and/or ecological disruption.</p> <p>Goal 16.49, Strive to Reduce Public Exposure to Hazardous Materials: Strive to reduce public exposure to hazardous materials through programs which: (1) promote safe transportation, (2) prevent accidental discharge, and (3) promote effective incident response, utilizing extensive inventory and monitoring techniques.</p>
Santa Barbara County	<p>Goals 1.6: (1-1) To protect the health and welfare of the public, the environment, and the economy of Santa Barbara County through a comprehensive program that ensures safe and efficient management of hazardous wastes. (1-2) To prevent hazardous waste from being permanently disposed into land or emitted into the air or water without being processed by an economically and technically feasible technology so as to protect public health and safety and the environment.</p>
Santa Clara County	<p>Goal 1: Manage Hazardous Materials Safely and Efficiently.</p> <p>Policy C-HS 14: All feasible measures to safely and effectively manage hazardous materials and site hazardous materials treatment facilities should be used, including complying with all federal and state mandates.</p>
Santa Cruz County	<p>Goal 6.6, Hazardous and Toxic Materials: To eliminate, to the greatest degree possible, the use of hazardous and toxic materials, and where it is not feasible completely to eliminate the use of such materials, then to minimize the reduction in the use of such materials, so as to ensure that such materials will not contaminate any portion of the County's environment, including the land, water, and air resources of the County.</p>
Ventura County	<p>Goals 2.1.1: (2) Protect public health, safety and general welfare from identified hazards and potential disasters. (3) Shield public and private property and essential facilities from identified hazards and potential disasters.</p>

General Plan	Goals and Policies
<i>Hydrology and Water Quality</i>	
Kern County	Policy 1.10.6, Surface Water and Groundwater: (34) Ensure that water quality standards are met for existing users and future development.
Monterey County	<p>Policy AG-5.2: Policies and programs to protect and enhance surface water and groundwater resources shall be promoted, but shall not be inconsistent with State and federal regulations.</p> <p>Goal OS-3: Prevent soil erosion to conserve soils and enhance water quality.</p> <p>Goal OS-4: Protect and conserve the quality of coastal, marine, and river environments, as applied in areas not in the coastal zone.</p> <p>Policy OS-4.2: Direct and indirect discharges of harmful substances into marine waters, rivers or streams shall not exceed state or federal standards.</p>
San Benito County	<p>Goal PFS-6: To manage stormwater from existing and future development using methods that reduce potential flooding, maintain natural water quality, enhance percolation for groundwater recharge, and provide opportunities for reuse.</p> <p>Policy PFS-6.8, Reduce Erosion and Sedimentation: The County shall ensure that drainage systems are designed and maintained to minimize soil erosion and sedimentation and maintain natural watershed functions.</p> <p>Goal NCR-4: To protect water quantity and quality in natural water bodies and groundwater basins and avoid overdraft of groundwater resources.</p> <p>Policy NCR-4.4, Open Space Conservation: The County shall encourage conservation and, where feasible, creation or restoration of open space areas that serve to protect water quality such as riparian corridors, buffer zones, wetlands, undeveloped open space areas, and drainage canals.</p>
San Luis Obispo County	<p>Goal WR 3: Excellent water quality will be maintained for the health of people and natural communities.</p> <p>Policy WR 3.1, Prevent water pollution: Take actions to prevent water pollution, consistent with federal and state water policies and standards, including but not limited to the federal Clean Water Act, Safe Drinking Water Act, and National Pollutant Discharge Elimination System (NPDES).</p> <p>Policy WR 3.3, Improve groundwater quality: Protect and improve groundwater quality from point and non-point source pollution, including nitrate contamination; MTBE and other industrial, agricultural, and commercial sources of contamination; naturally occurring mineralization, boron, radionuclides, geothermal contamination; and seawater intrusion and salts.</p> <p>Policy WR 3.4, Water quality restoration: Pursue opportunities to participate in programs or projects for water quality restoration and remediation with agencies and organizations such as the Regional Water Quality Control Board</p>

General Plan	Goals and Policies
	<p>(RWQCB), California Department of Fish and Game (CDFG), National Marine Fisheries Service (NMFS), and Resource Conservation Districts (RCDs) in areas where water quality is impaired.</p> <p>Policy WR 4.8, Efficient irrigation: Support efforts of the resource conservation districts, California Polytechnic State University (CalPoly), the University of California Cooperative Extension, and others to research, develop, and implement more efficient irrigation techniques.</p>
San Mateo County	<p>Goal: 1.1, Conserve, Enhance, Protect, Maintain and Manage Vegetative, Water, Fish and Wildlife Resources: Promote the conservation, enhancement, protection, maintenance and managed use of the County's Vegetative, Water, Fish and Wildlife Resources.</p> <p>Policy 1.26, Protect Water Resources: Ensure that development will: (1) minimize the alteration of natural water bodies, (2) maintain adequate stream flows and water quality for vegetative, fish and wildlife habitats; (3) maintain and improve, if possible, the quality of groundwater basins and recharge areas; and (4) prevent to the greatest extent possible the depletion of groundwater resources.</p> <p>Policy 1.37, Protect the Productive Use of Water Resources: Ensure that land uses and development on or near water resources will not impair the quality or productive capacity of these resources.</p>
Santa Barbara County	<p>Water Resources Policies: (1) The County and the cities should support the Regional Water Quality Control Board in its establishment of discharge requirements for point source waste discharges, in order to protect surface and groundwater supplies; (3) Land use and development upstream from surface reservoirs should be regulated and monitored by the County Department of Public Works and the County Planning Department in order to minimize the production of water polluting wastes.</p>
Santa Clara County	<p>Goal 1: Reduce Non-Point Source Pollution.</p> <p>Goal 2: Restore Wetlands, Riparian Areas, and Other Habitats That Improve Bay Water Quality.</p> <p>Policy C-RC 19: The strategies for maintaining and improving water quality on a countywide basis, in addition to ongoing point source regulation, should include: (a) effective non-point source pollution control; (b) restoration of wetlands, riparian areas, and other habitats which serve to improve Bay water quality; and (c) comprehensive Watershed Management Plans and "best management practices" (BMPs).</p> <p>Policy C-RC 20: Adequate safeguards for water resources and habitats should be developed and enforced to avoid or minimize water pollution of various kinds, including: (a) erosion and sedimentation; (b) organic matter and wastes; (c) pesticides and herbicides; (d) hazardous wastes; and (e) non-point source pollution.</p>

General Plan	Goals and Policies
Santa Cruz County	<p>Goal 5.7, Maintaining Surface Water Quality: To protect and enhance surface water quality in the County's streams, coastal lagoons, and marshes by establishing best management practices on adjacent land uses.</p> <p>Goal 5.8a, Groundwater Protection: To protect the quantity and quality of the County's groundwater resources through an integrated program of land use regulation and runoff management in groundwater recharge areas, careful water quality monitoring and management of extractions consistent with long-term sustainable water supply yields.</p> <p>Policy 5.7.3, Erosion Control for Stream and Lagoon Protection: For all new and existing development and land disturbances, require the installation and maintenance of sediment basins, and/or other strict erosion control measures, as needed to prevent siltation of streams and coastal lagoons. (Also see Erosion policies in section 6.3.)</p>
Ventura County	Goals 1.3.1: (3) Maintain and, where feasible, restore the chemical, physical and biological integrity of surface and groundwater resources. (5) Protect and, where feasible, enhance watersheds and aquifer recharge areas.
Noise	
Kern County	Goal 3.2, Noise Sensitive Areas: (1) Ensure that residents of Kern County are protected from excessive noise and that moderate levels of noise are maintained.
Monterey County	<p>Goal S-7: Maintain a healthy and quiet environment free from annoying and harmful sounds.</p> <p>Policy S-7.2: Proposed development shall incorporate design elements necessary to minimize noise impacts on surrounding land uses and to reduce noise in indoor spaces to an acceptable level.</p>
San Benito County	Goal HS-8: To protect the health, safety, and welfare of county residents through the elimination of annoying or harmful noise levels.
San Luis Obispo County	Goals 3.1: (1) To protect the residents of San Luis Obispo County from the harmful and annoying effects of exposure to excessive noise.
San Mateo County	<p>Goal 16.1, Strive Toward a Livable Noise Environment: Strive toward an environment for all residents of San Mateo County which is free from unnecessary, annoying, and injurious noise.</p> <p>Goal 16.2, Reduce Noise Impacts Through Noise/Land Use Compatibility and Noise Mitigation: Reduce noise impacts within San Mateo County through measures which promote noise/land use compatibility and noise mitigation.</p>
Santa Barbara County	Noise Policies: (1) In the planning of land use, 65 dB Day-Night Average Sound Level should be regarded as the maximum exterior noise exposure compatible with noise-sensitive uses unless noise mitigation features are included in project designs.

General Plan	Goals and Policies
Santa Clara County	Goal 1: Prevent or Minimize Noise Conflicts. Policy C-HS 24: Environments for all residents of Santa Clara County free from noises that jeopardize their health and well-being should be provided through measures which promote noise and land use compatibility.
Santa Cruz County	Goal 6.9a, Noise Environment: To promote land uses which are compatible with each other and with the existing and future noise environment. Prevent new noise sources from increasing the existing noise levels above acceptable standards and eliminate or reduce noise from existing objectionable noise sources.
Ventura County	Goal 2.16.1: To protect the health, safety and general welfare of County residents by elimination or avoidance of adverse noise impacts on existing and future noise sensitive uses.
<i>Tribal Cultural Resources</i>	
Kern County	None.
Monterey County	Goal OS-8: Encourage the conservation and identification of the County's Native Californian cultural sites, sacred places and burial sites. Policy OS-8.1: Unique burial sites shall be identified and protected. All Native Californian cemeteries, burials, shrine sites, and sacred place locations shall be preserved in place to the greatest extent possible and as permitted by law. In cases where such sites and locations cannot be retained in place without modification, governing requirements in the Government Code, Health and Safety Code, California Environmental Quality Act and Native American Religious Freedom Act shall be taken into account in consulting with local Native Californian Tribal Groups with documented aboriginal ties to the study area and shall be carried out, as necessary, with the assistance and input of the California Native American Heritage Commission. Documentation of descent shall be based on Genealogical Proof Standards.
San Benito County	Goal NCR-1: To preserve and enhance valuable open space lands that provide wildlife habitat and conserve natural, historical, archaeological, paleontological, tribal, and visual resources of San Benito County. Goal NCR-7: To protect, preserve, and enhance the unique cultural and historic resources in the county. Policy NCR-7.9, Tribal Consultation: The County shall consult with Native American tribes regarding proposed development projects and land use policy changes consistent with the State's Local and Tribal Intergovernmental Consultation requirements.

General Plan	Goals and Policies
San Luis Obispo County	<p>Goal CR 4: The county's known and potential Native American, archaeological, and paleontological resources will be preserved and protected.</p> <p>Policy CR 4.2, Protection of Native American Cultural Sites: Ensure protection of archaeological sites that are culturally significant to Native Americans, even if they have lost their scientific or archaeological integrity through previous disturbance. Protect sites that have religious or spiritual value, even if no artifacts are present. Protect sites that contain artifacts, which may have intrinsic value, even though their archaeological context has been disturbed.</p>
San Mateo County	None.
Santa Barbara County	<p>Historical and Archaeological Sites Policies: (3) When sufficient planning flexibility does not permit avoiding construction on archaeological or other types of cultural sites, adequate mitigation shall be required. Mitigation shall be designed in accord with guidelines of the State Office of Historic Preservation and the State of California Native American Heritage Commission. (4) Native Americans shall be consulted when development proposals are submitted which impact significant archaeological or cultural sites.</p>
Santa Clara County	None.
Santa Cruz County	<p>Policy 5.19.1, Evaluation of Native American Cultural Sites: Protect all archaeological resources until they can be evaluated. Prohibit any disturbance of Native American Cultural Sites without an appropriate permit. Maintain the Native American Cultural Sites ordinance.</p>
Ventura County	<p>Goal 1.8.1: (1) Identify, inventory, preserve and protect the paleontological and cultural resources of Ventura County (including archaeological, historical and Native American resources) for their scientific, educational and cultural value.</p> <p>Policies 1.8.2: (1) Discretionary development shall be designed or re-designed to avoid potential impacts to significant paleontological or cultural resources whenever possible. Unavoidable impacts, whenever possible, shall be reduced to a less than significant level and/or shall be mitigated by extracting maximum recoverable data. Determinations of impacts, significance and mitigation shall be made by qualified archaeological (in consultation with recognized local Native American groups), historical or paleontological consultants, depending on the type of resource in question. (2) Mitigation of significant impacts on cultural or paleontological resources shall follow the Guidelines of the State Office of Historic Preservation, the State Native American Heritage Commission, and shall be performed in consultation with professionals in their respective areas of expertise</p>

General Plan	Goals and Policies
Wildfire	
Kern County	Policy 4.6, Wildland and Urban Fire: (3) The County will encourage the promotion of fire prevention methods to reduce service protection costs and costs to taxpayers; (4) Ensure that new development of properties have sufficient access for emergency vehicles and for the evacuation of residents.
Monterey County	Goal S-4: Minimize the risks from fire. Policy 4.32: Property owners in high, very high, and extreme fire hazard areas shall prepare an overall Fuel Modification Zone plan in conjunction with permits for new structures, subject to approval and to be performed in conjunction with the CDFFP and/or other fire protection agencies in compliance with State Law.
San Benito County	Goal HS-4: To minimize the risk of wildland and urban fire hazards. Policy HS-4.4, Development in Fire Hazard Zones: The County shall require development in high fire-hazard areas to be designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards. Policy HS-4.5, Fire-Resistant Vegetation: The County shall require development in high fire-hazard areas to have fire-resistant vegetation, cleared fire breaks separating communities or clusters of structures from native vegetation, or a long-term comprehensive vegetation and fuel management program consistent with State codes 4290 and 4291 for wildland fire interface and vegetation management.
San Luis Obispo County	Goal S-4. Reduce the threat to life, structures and the environment caused by fire. Policy BR 2.7, Fire Suppression and Sensitive Plants and Habitats: Balance the need for fire suppression and/or vegetation (fuel) management with the need to protect sensitive biological resources. Where possible, design land divisions and development so that fuel-breaks, vegetation, or fuel modification areas that are needed to reduce fire hazards do not disrupt special-status plant communities or critical habitat for special status animal species. Fuel-breaks and vegetation or fuel modification areas shall be located on the development side of required setbacks from sensitive features, and shall be in addition to the required setbacks.
San Mateo County	Policy 15.37, Support Efforts to Reduce the Extent of the Fire Hazards: Support public and private efforts to reduce the potential of fire hazards through methods including but not limited to controlled burning programs reduction of fuel loading, construction and maintenance of fire breaks and other appropriate methods.
Santa Barbara County	Hillside and Watershed Protection Policies: (8) On any lands not Comprehensive Planned and zoned for agriculture, grading and “brushing” shall require a permit. Exceptions shall be grading of 50 cubic yards or less and “brushing” within a radius of 100 yards of a residential structure for fire purposes.

General Plan	Goals and Policies
Santa Clara County	Goal, Safety from Natural and Other Hazards: (7.1) Human life and property protected from the dangers of natural hazards, such as flood, seismic, geologic, and fire hazards.
Santa Cruz County	<p>Overall Public Health and Safety Goal: To protect human life, private property and the environment, and to minimize public expenses by preventing inappropriate use and development or location of public facilities and infrastructure in those areas which, by virtue of natural dynamic processes or proximity to other activities, present a potential threat to the public health, safety and general welfare.</p> <p>Objective 4.5, Fire Hazards: To protect the public from the hazards of fire through citizen awareness, mitigating the risks of fire, responsible fire protection planning and built-in systems for fire detection and suppression.</p>
Ventura County	Goals 2.13.1: (1) Minimize the risk of loss of life injury, damage to structures, and economic and social dislocations resulting from fire hazards. (2) Ensure that development in high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards.

APPENDIX C
SPECIAL-STATUS SPECIES TABLE

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Table C-1. Special-Status and Protected Plant, Animal, and Fish Species with Potential to Occur in or Near Irrigated Lands in the Central Coast Region¹

Common and Scientific Name	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
Plants			
Abbott's bush-mallow <i>Malacothamnus abbottii</i>	--/--/1B.1	Riparian scrub.	Among willows near rivers and along roadsides. Elevation 135-470 m. Blooming period: May – October.
adobe sanicle <i>Sanicula maritima</i>	--/R/1B.1	Meadows and seeps, valley and foothill grassland, chaparral, coastal prairie.	Moist clay or ultramafic soils. Elevation 15-215 m. Blooming period: February – May.
alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>	--/--/1B.2	Alkali playa, valley and foothill grassland, vernal pools.	Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. Elevation 0-170 m. Blooming period: March – June.
Arroyo de la Cruz manzanita <i>Arctostaphylos cruzensis</i>	--/--/1B.2	Broadleaved upland forest, coastal bluff scrub, closed-cone coniferous forest, chaparral, coastal scrub, & valley and foothill grassland.	On sandy soils in several different habitat types from chaparral to coastal scrub to woodland. Elevation 5-150 meters. Blooming period: December – March.
bent-flowered fiddleneck <i>Amsinckia lunaris</i>	--/--/1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub.	Elevation 3-795 meters. Blooming period: March – June.
big-scale balsamroot <i>Balsamorhiza macrolepis</i>	--/--/1B.2	Chaparral, valley and foothill grassland, cismontane woodland.	Sometimes on serpentine. Elevation 35-1465 m. Blooming period: March – June.
Bolander's water-hemlock <i>Cicuta maculata</i> var. <i>bolanderi</i>	--/--/2B.1	Marshes and swamps.	In fresh or brackish water. Elevation 0-20 m. Blooming period: July – September.

¹ List of plant and animal species based on the USFWS IPaC Report, and on CNDDDB and CNPS searches of the respective counties and USGS 7.5-minute quadrangles in the central coast region.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
Braunton's milk-vetch <i>Astragalus brauntonii</i>	FE/--/1B.1	Chaparral, coastal scrub, valley and foothill grassland.	Recent burns or disturbed areas; usually on sandstone with carbonate layers. Soil specialist; requires shallow soils to defeat pocket gophers and open areas, preferably on hilltops, saddles or bowls between hills. Elevation 3-640 m. Blooming period: January – August.
bristly sedge <i>Carex comosa</i>	--/--/2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland.	Lake margins, wet places; site below sea level is on a Delta island. Elevation -5-1010 m. Blooming period: May – September.
California alkali grass <i>Puccinellia simplex</i>	--/--/1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools.	Alkaline, vernal mesic. Sinks, flats, and lake margins. Elevation 1-915 m. Blooming period: March – May.
California saw-grass <i>Cladium californicum</i>	--/--/2B.2	Meadows and seeps, marshes and swamps (alkaline or freshwater).	Freshwater or alkaline moist habitats. Elevation -20-2135 m. Blooming period: June – September.
Camatta Canyon amole <i>Chlorogalum purpureum</i> var. <i>reductum</i>	FT/R/1B.1	Cismontane woodland, valley and foothill grassland.	Open areas with low vegetative cover in sandy loam soils. Elevation 488-610 m. Blooming period: April – May.
caper-fruited tropidocarpum <i>Tropidocarpum</i> <i>capparideum</i>	--/--/1B.1	Valley and foothill grassland.	Alkaline clay. Elevation 0-360 m. Blooming period: March – April.
Choris' popcornflower <i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>	--/--/1B.2	Chaparral, coastal scrub, coastal prairie.	Mesic sites. 5-705 m. Blooming period: March – June.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
Chorro Creek bog thistle <i>Cirsium fontinale</i> var. <i>obispoense</i>	FE/SE/1B.2	Chaparral, Cismontane woodland, coastal scrub, valley and foothill grassland.	Perennial herb with nodding dark purple inflorescence. Occurs in serpentine seeps and streams. Blooming period: Feb-Sep. Elevation: 35-385 meters. Blooming period: April – October.
compact cobwebby thistle <i>Cirsium occidentale</i> var. <i>compactum</i>	--/--/1B.2	Chaparral, coastal dunes, coastal prairie, coastal scrub.	On dunes and on clay in chaparral; also in grassland. Elevation 5-245 m. Blooming period: April – June.
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	--/--/1B.1	Valley and foothill grassland.	Alkaline soils, sometimes described as heavy white clay. Elevation 0-245 m. Blooming period: May – October.
Contra Costa goldfields <i>Lasthenia conjugens</i>	FE/--/1B.1	Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodland.	Vernal pools, swales, low depressions, in open grassy areas. Elevation 1-450 m. Blooming period: March – June.
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	--/--1B.1	Coastal salt marshes, playas, vernal pools.	Usually found on alkaline soils in playas, sinks, and grasslands. Elevation 1-1375 m. Blooming period: February – June.
Coyote ceanothus <i>Ceanothus ferrisiae</i>	FE/--/1B.1	Chaparral, valley and foothill grassland, coastal scrub.	Serpentine sites in the Mt. Hamilton range. Elevation 150-460 m. Blooming period: January – May.
Davidson's bushmallow <i>Malacothamnus</i> <i>davidsonii</i>	--/--/1B.2	Chaparral, Cismontane woodland, coastal scrub, riparian woodland.	Annual herb with a pale pink/white flower. Occurs in riparian areas and also on slopes and washes. Blooming period: Jun-Jan. Elevation: 185-1,140 meters. Blooming period: June – January.
deceiving sedge <i>Carex saliniformis</i>	--/--/1B.2	Coastal prairie, coastal scrub, meadows and seeps, marshes and swamps (coastal salt).	Mesic sites. Elevation 2-230 m. Blooming period: May – June.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
Diablo Range hare-leaf <i>Lagophylla diabolensis</i>	--/--/1B.2	Cismontane woodland, valley and foothill grassland.	Clay. Elevation 365-1070 m. Blooming period: April – September.
diamond-petaled California poppy <i>Eschscholzia rhombipetala</i>	--/--/1B.1	Valley and foothill grassland.	Alkaline, clay slopes and flats. Elevation 30-625 m. Blooming period: March – April.
dwarf calycadenia <i>Calycadenia villosa</i>	--/--/1B.1	Chaparral, meadows and seeps, valley and foothill grasslands.	Annual herb with a white to pink ray flower up to 18 inches tall. Associated with dry, rocky hills, ridges. Blooming period: May-October. Elevation: 240-1,350 meters. Blooming period: May – October.
dwarf goldenstar <i>Bloomeria humilis</i>	--/R/1B.2	Coastal bluff scrub, chaparral, valley and foothill grassland.	Known mainly from Arroyo de La Cruz area on coastal bluffs. Elevation 10-155 m. Blooming period: June.
Eastwood's larkspur <i>Delphinium parryi</i> ssp. <i>eastwoodiae</i>	--/--/1B.2	Chaparral (openings), valley and foothill grassland.	Perennial herb. Occurs in coastal chaparral, grassland, on serpentine soils. Blooming period: Mar-May. Elevation: 75-500 meters. Blooming period: March – March.
fragrant fritillary <i>Fritillaria liliacea</i>	--/--/1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland.	Often on serpentine; various soils reported though usually on clay, in grassland. Elevation 3-385 m. Blooming period: February – April.
Franciscan onion <i>Allium peninsulare</i> var. <i>franciscanum</i>	--/--/1B.2	Cismontane woodland, valley and foothill grassland.	Clay soils; often on serpentine; sometimes volcanic. Dry hillsides. Elevation 5-320 meters. Blooming period: May – June.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WWBG	General Habitat	Micro Habitat/Description
Gambel's water cress <i>Nasturtium gambelii</i>	FE/ST/1B.1	Marshes and swamps.	Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. 5-305 m. Blooming period: April – October.
Gaviota tarplant <i>Deinandra increscens</i> ssp. <i>villosa</i>	FE/SE/1B.1	Coastal scrub, valley and foothill grassland, coastal bluff scrub.	Known from coastal terrace near Gaviota; sandy blowouts amid sandy loam soil; grassland/coast scrub ecotone. Elevation 10-430 m. Blooming period: May- October.
Hall's tarplant <i>Deinandra halliana</i>	--/--/1B.1	Chenopod scrub, Cismontane woodland, foothill and valley grassland.	Annual herb that grows up to 4 feet tall with deep yellow flowers. Occurs in grasslands, open slopes, basin edges, vertic clay, and rarely serpentine. Blooming period: April-May. Elevation: 260-1,000 meters. Blooming period: Aril – May.
hairless popcornflower <i>Plagiobothrys glaber</i>	--/--/1A	Meadows and seeps, marshes and swamps.	Coastal salt marshes and alkaline meadows. 5-125 m. Blooming period: March – May.
Hearsts' ceanothus <i>Ceanothus hearstiorum</i>	--/R/1B.2	Maritime chaparral, coastal prairie, coastal scrub.	In grassland or chaparral, sometimes with <i>Arctostaphylos cruzensis</i> . Elevation 70-305 m. Blooming period: March – April.
Hearsts' manzanita <i>Arctostaphylos hookeri</i> ssp. <i>hearstiorum</i>	--/SE/1B.2	Chaparral, coastal prairie, coastal scrub, valley foothill grassland.	On terraces, on sandy loam; also known from stabilized dunes and from serpentine (in one case). Elevation 60-155 meters. Blooming period: February – April.
Hickman's onion <i>Allium hickmanii</i>	--/--/1B.2	Closed-cone coniferous forest, chaparral, coastal scrub, coastal prairie, valley and foothill grassland.	Sandy loam, damp ground and vernal swales; mostly in grassland though can be associated with chaparral or woodland. Elevation 5-200 meters. Blooming period: March – May.

Common and Scientific Name	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
Hoover's button-celery <i>Eryngium aristulatum</i> var. <i>hooveri</i>	--/--/1B.1	Vernal pools.	Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. Elevation 1-50 m. Blooming period: July.
Jared's pepper-grass <i>Lepidium jaredii</i> ssp. <i>jaredii</i>	--/--/1B.2	Valley and foothill grasslands.	Annual herb with lemon yellow spoon-shaped flower. Occurs in washes, slopes, dry hillsides, vertic clay, acidic and gypsiferous soils and alluvial fans. Blooming period: Mar-May. Elevation: 500-700 meters. Blooming period: March – May.
Jepson's milk-vetch <i>Astragalus rattanii</i> var. <i>jepsonianus</i>	--/--/1B.2	Cismontane woodland, valley and foothill grassland, chaparral.	Commonly on serpentine in grassland or openings in chaparral. Elevation 175-1005 m. Blooming period: March – June.
Jones' layia <i>Layia jonesii</i>	--/--/1B.2	Chaparral, valley and foothill grassland.	Clay soils and serpentine outcrops. Elevation 5-245 m. Blooming period: March – May.
Kern mallow <i>Eremalche parryi</i> ssp. <i>kernensis</i>	FE/--/1B.2	Chenopod scrub, valley and foothill grassland, pinyon and juniper woodlands.	On dry, open, sandy to clay soils; usually within valley saltbush scrub; often at edge of balds. Elevation 60-1295 m. Blooming period: January, March, April, May.
La Graciosa thistle <i>Cirsium scariosum</i> var. <i>loncholepis</i>	FE/SE/1B.1	Coastal dunes, coastal scrub, brackish marshes, valley and foothill grassland, cismontane woodland.	Lake edges, riverbanks, other wetlands; often in dune areas. Mesic, sandy sites. Elevation 3-220 m. Blooming period: May – August.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WWBG	General Habitat	Micro Habitat/Description
La Panza mariposa lily <i>Calochortus simulans</i>	--/--/1B.3	Chaparral, Cismontane woodland, Lower Montane coniferous forest, valley and foothill grasslands.	Perennial bulbiferous herb with a white to yellow bell-shaped flower with a dark red spot at the base. Meadow habitats. Sandy (often granitic) soils, sometimes serpentinite. Blooming period: April-July. Elevation: 325-1,150 meters. Blooming period: April – June.
Lemmon's jewelflower <i>Caulanthus lemmonii</i>	--/--/1B.2	Valley and foothill grasslands, chaparral, scrub.	Annual herb up to 32 inches tall with a creamy white flower with purple or brown tips. Blooming period: February-May. Elevation: 80-1,580 meters. Blooming period: February – May.
Lost Hills crownscale <i>Atriplex coronata</i> var. <i>vallicola</i>	--/--/1B.2	Chenopod scrub, valley and foothill grassland, vernal pools.	In powdery, alkaline soils that are vernal moist with <i>Frankenia</i> , <i>Atriplex</i> spp. and <i>Distichlis</i> . Elevation 45-885 m. Blooming period: April – September.
lost thistle <i>Cirsium praeteriens</i>	--/--/1A	Little information exists on this plant; it was collected from the Palo Alto area at the turn of the 20th Century.	Although not seen since 1901, this <i>Cirsium</i> is thought to be quite distinct from other <i>Cirsium</i> spp. acc. to D. Keil. Elevation 0-100 m. Blooming period: June – July.
maritime ceanothus <i>Ceanothus maritimus</i>	--/R/1B.2	Coastal bluff scrub, chaparral, valley and foothill grassland.	Often at edges of coastal sage scrub & scattered in grassland; some populations on serpentine. Elevation 60-150 m. Blooming period: January – April.
marsh microseris <i>Microseris paludosa</i>	--/--/1B.2	Closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland.	Elevation 3-610 m. Blooming period: Aril – June.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
Marsh sandwort <i>Arenaria paludicola</i>	FE/SE/1B.2	Marshes and swamps.	Perennial stoloniferous herb with a shiny, angled or grooved stem and white flower. Occurs in wet meadows and marshes. Blooming period: May-Aug. Elevation: 3-170 meters. Blooming period: May – August.
Monterey spineflower <i>Chorizanthe pungens</i> var. <i>pungens</i>	FT/--/1B.2	Coastal dunes, chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	Sandy soils in coastal dunes or more inland within chaparral or other habitats. Elevation 3-270 m. Blooming period: April – June.
Munz's tidy-tips <i>Layia munzii</i>	--/--/1B.2	Chenopod scrub, valley and foothill grassland.	Hillsides, in white-grey alkaline clay soils, w/grasses and chenopod scrub associates. Elevation 45-765 m. Blooming period: March – April.
pale-yellow layia <i>Layia heterotricha</i>	--/--/1B.2	Cismontane, Pinyon and Juniper woodland, coastal scrub, and valley and foothill grassland.	Annual herb that is often considered to be apple- or banana-scented with yellow to brown disk flowers. Associated with open clay or sandy, sometimes +/- alkaline soils. Blooming period: April–June. Elevation: 200–1,800 meters. Blooming period: March – June.
Panoche pepper-grass <i>Lepidium jaredii</i> ssp. <i>album</i>	--/--/1B.2	Valley and foothill grassland.	White or grey clay lenses on steep slopes; incidental in alluvial fans and washes. Clay and gypsum-rich soils. Elevation 65-1005 m. Blooming period: February – June.
Payne's bush lupine <i>Lupinus paynei</i>	--/--/1B.1	Coastal scrub, riparian scrub, valley and foothill grassland.	Sandy. Elevation 220-425 m. Blooming period: March – April.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
pink creamsacs <i>Castilleja rubicundula</i> var. <i>rubicundula</i>	--/--/1B.2	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland.	Openings in chaparral or grasslands. On serpentine. Elevation 20-915 m. Blooming period: April – June.
pink Johnny-nip <i>Castilleja ambigua</i> var. <i>insalutata</i>	--/--/1B.1	Coastal bluff scrub, coastal prairie.	Wet or moist coastal strand or scrub habitats. Elevation 3-135 m. Blooming period: May – August.
Pismo clarkia <i>Clarkia speciosa</i> ssp. <i>immaculata</i>	FE/R/1B.1	Cismontane woodland, chaparral, coastal scrub, riparian woodland.	Elevation 10-1280 m. Blooming period: May – July.
Point Reyes horkelia <i>Horkelia marinensis</i>	--/--/1B.2	Coastal dunes, coastal prairie, coastal scrub.	Sandy flats and dunes near coast; in grassland or scrub plant communities. Elevation 2-775 m. Blooming period: May – September.
prostrate vernal pool navarretia <i>Navarretia prostrata</i>	--/--/1B.1	Coastal scrub, valley and foothill grasslands.	Annual prostrate herb with a central head that occurs in alkaline floodplains in vernal pools. Blooming period: April–July. Elevation: <1,210 meters. Blooming period: April – July.
Recurved larkspur <i>Delphinium recurvatum</i>	--/--/1B.2	Chenopod scrub, valley and foothill grassland, cismontane woodland.	On alkaline soils; often in valley saltbush or valley chenopod scrub. Elevation 3-790 m. Blooming period: March – June.
saline clover <i>Trifolium hydrophilum</i>	--/--/1B.2	Marshes and swamps, valley and foothill grassland, vernal pools.	Mesic, alkaline sites. Elevation 1-335 m. Blooming period: April – June.
salt marsh bird's-beak <i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	FE/SE/1B.2	Marshes and swamps, coastal dunes.	Limited to the higher zones of salt marsh habitat. Elevation 0-10 m. Blooming period: May – October.

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San Antonio collinsia <i>Collinsia antonina</i>	--/--/1B.2	Chaparral, cismontane woodland, valley and foothill grassland.	On ancient sand dunes not far from the coast. Sandy soils; openings. Elevation 30-185 m. Blooming period: March – May.
San Benito pentachaeta <i>Pentachaeta exilis</i> ssp. <i>aeolica</i>	--/--/1B.2	Cismontane woodland, valley and foothill grassland.	Grassy areas. 365-855 m. Blooming period: March – May.
San Bernardino aster <i>Symphyotrichum</i> <i>defoliatum</i>	--/--/1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland.	Vernally mesic grassland or near ditches, streams and springs; disturbed areas. Elevation 3-2045 m. Blooming period: July – November.
San Francisco popcornflower <i>Plagiobothrys diffusus</i>	--/SE/1B.1	Valley and foothill grassland, coastal prairie.	Historically from grassy slopes with marine influence. 45-360 m. Blooming period: March – June.
San Joaquin spearscale <i>Extriplex joaquinana</i>	--/--/1B.2	Chenopod scrub, alkali meadow, playas, valley and foothill grassland.	In seasonal alkali wetlands or alkali sink scrub with <i>Distichlis spicata</i> , <i>Frankenia</i> , etc. Elevation 0-800 m. Blooming period: April – October.
San Luis mariposa-lily <i>Calochortus obispoensis</i>	--/--/1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	Often in serpentine grassland. Elevation 15-550 m. Blooming period: May – July.
San Luis Obispo owl's clover <i>Castilleja densiflora</i> var. <i>obispoensis</i>	--/--/1B.2	Meadows and seeps, valley and foothill grasslands.	Annual herb with cream to pale yellow flowers. Occurs in coastal grassland. Blooming period: March-June. Elevation: 10-430 meters. Blooming period: March – May.
San Luis Obispo sedge <i>Carex obispoensis</i>	--/--/1B.2	Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland.	Usually in transition zone on sand, clay, serpentine, or gabbro. In seeps. Elevation 5-845 m. Blooming period: April – June.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WWBG	General Habitat	Micro Habitat/Description
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--/--/1B.2	Marshes and swamps.	In standing or slow-moving freshwater ponds, marshes, and ditches. Elevation 0-605 m. Blooming period: May – October.
Santa Cruz clover <i>Trifolium buckwestiorum</i>	--/--/1B.1	Coastal prairie, broadleaved upland forest, cismontane woodland.	Moist grassland. Gravelly margins. Elevation 30-805 m. Blooming period: April – October.
Santa Cruz tarplant <i>Holocarpha macradenia</i>	FT/SE/1B.1	Coastal prairie, coastal scrub, valley and foothill grassland.	Light, sandy soil or sandy clay; often with nonnatives. Elevation 10-275 m. Blooming period: June – October.
Santa Lucia purple amole <i>Chlorogalum purpureum</i> var. <i>purpureum</i>	FT/--/1B.1	Chaparral, Cismontane woodland, valley and foothill grassland	Perennial bulbiferous herb. Occurs in gravelly and clay soils in open woodland. Blooming period: Apr-Jun. Elevation: 205-385 meters. Blooming period: April – June.
Scotts Valley polygonum <i>Polygonum hickmanii</i>	FE/SE/1B.1	Valley and foothill grassland.	Purissima sandstone or mudstone with a thin soil layer; vernal moist due to runoff. Elevation 210-230 m. Blooming period: May – August.
Scotts Valley spineflower <i>Chorizanthe robusta</i> var. <i>hartwegii</i>	FE/--/1B.1	Meadows and seeps, valley and foothill grassland.	In grasslands with mudstone and sandstone outcrops. Elevation 105-245 m. Blooming period: April – July.
showy golden madia <i>Madia radiata</i>	--/--/1B.1	Valley and foothill grassland, cismontane woodland.	Mostly on adobe clay in grassland or among shrubs. Elevation 75-1220 m. Blooming period: March – May.
slender-leaved pondweed <i>Stuckenia filiformis</i> ssp. <i>alpina</i>	--/--/2B.2	Marshes and swamps.	Shallow, clear water of lakes and drainage channels. Elevation 5-2325 m. Blooming period: May – July.

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Small-flowered calycadenia <i>Calycadenia micrantha</i>	--/--/1B.2	Chaparral, valley and foothill grassland, meadows and seeps.	Rocky talus or scree; sparsely vegetated areas. occasionally on roadsides; sometimes on serpentine. Elevation 435-1405 m. Blooming period: June – September.
smooth lessingia <i>Lessingia micradenia</i> var. <i>glabrata</i>	--/--/1B.2	Chaparral, cismontane woodland, valley and foothill grassland.	Serpentine; often on roadsides. Elevation 90-490 m. Blooming period: July – November.
southern tarplant <i>Centromadia parryi</i> ssp. <i>australis</i>	--/--/1B.1	Marshes and swamps (margins), valley and foothill grassland, vernal pools.	Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes on vernal pool margins. Elevation 0-975 m. Blooming period: May – November.
spiny-sepaed button-celery <i>Eryngium spinosepalum</i>	--/--/1B.2	Vernal pools, valley and foothill grassland.	Some sites on clay soil of granitic origin; vernal pools, within grassland. Elevation 15-1270 m. Blooming period: April – June.
spreading navarretia <i>Navarretia fossalis</i>	FT/--/1B.1	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools.	Spreading (not prostrate) annual herb with long bracts and white flowers. Occurs in vernal pools and ditches. Blooming period: Apr-Jun. Elevation: 30-655 meters. Blooming period: April – June.
straight-awned spineflower <i>Chorizanthe rectispina</i>	--/--/1B.3	Chaparral, coastal scrub, Cismontane woodland, blue oak woodland.	Annual herb that is generally decumbent with a small yellow tube flower and white lobes. Sandy or gravelly loams, unnamed drainage channels. Blooming period: April-July. Elevation: 85-1,035 meters. Blooming period: April – July.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
swamp harebell <i>Campanula californica</i>	--/--/1B.2	Bogs and fens, closed-cone coniferous forest, coastal prairie, meadows and seeps, freshwater marsh, north coast coniferous forest.	Bogs and marshes in a variety of habitats; uncommon where it occurs. Elevation 1-520 m. Blooming period: June – October.
Tejon poppy <i>Eschscholzia lemmonii</i> ssp. <i>kernensis</i>	--/--/1B.1	Valley and foothill grassland, chenopod scrub.	Little information available on habitat. Elevation 135-1355 m. Blooming period: March – May.
Temblor buckwheat <i>Eriogonum temblorense</i>	--/--/1B.2	Valley and foothill grassland.	Annual herb with a white flower and basal leaves, stems up to 6 inches tall. Associated with sandy soils. Blooming period: April-Sept. Elevation: 300-1000 meters. Blooming period: May – September.
white rabbit-tobacco <i>Pseudognaphalium</i> <i>leucocephalum</i>	--/--/2B.2	Riparian woodland, cismontane woodland, coastal scrub, chaparral.	Sandy, gravelly sites. Elevation 35-515 m. Blooming period: August – November.
woodland woollythreads <i>Monolopia gracilens</i>	--/--/1B.2	Serpentine grassland, open chaparral, and oak woodland.	Annual herb with yellow flowers and erect and spreading stems. Blooming period: February–July. Elevation: 100–1,200 meters. Blooming period: March – July.
Amphibians			
arroyo toad <i>Anaxyrus californicus</i>	FE/SSC/--	Southern Monterey and central San Luis Obispo counties; south Coastal to Transverse ranges; southern Orange, southwestern Riverside and San Bernardino; and western San Diego counties.	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering.

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California red-legged frog <i>Rana draytonii</i>	FT/SSC/--	Riparian, aquatic, grassland, forest, or scrub habitats from southern Mendocino County south along California's coast (including Los Padres National Forest) to the US/Mexico border, and along the Sierra-Nevada foothills south to southern Fresno County.	A medium-sized frog with prominent dorsolateral folds extending along the back of the body. Occurs in semi-permanent or permanent water at least 3 feet deep, bordered by emergent or riparian vegetation, and upland grassland, forest, or scrub habitats for refugia and dispersal. Aquatic habitats include pools, backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds, stock ponds and lagoons. Upland habitats include downed woody vegetation, leaf litter, and small mammal burrows.
California tiger salamander <i>Ambystoma californiense</i>	FT, FE (Santa Barbara Distinct Population Segment [DPS])/ST/--	Annual grassland, valley–foothill hardwood, and valley–foothill riparian habitats; vernal pools, other ephemeral pools, and (uncommonly) along stream courses and man-made pools if predatory fishes are absent	Need underground refuges, especially ground squirrel burrows & vernal pools or other seasonal water sources for breeding.
Coast Range (=California) newt <i>Taricha torosa</i>	--/SSC/--	Coastal mountain streams from Mendocino, Lake, Napa, and Sonoma counties; greater San Francisco Bay counties; coastal portions of Monterey and San Luis Obispo counties; southern Santa Barbara County; and southern Ventura, central Los Angeles, eastern Orange and western Riverside counties, central San Diego County, and two populations in south western San Bernardino County.	Wet forests, oak forests, chaparral, and rolling grassland where perennial streams are present.

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Foothill yellow-legged frog <i>Rana boylei</i>	--/SECT, SISC/--	Coast and coastal mountain ranges from Oregon border south to Ventura County, Sierra Nevada foothills south to Tulare County. Disjunct populations in eastern Los Angeles County and northern Sutter County.	Lowlands & foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.
Santa Cruz long-toed salamander <i>Ambystoma macrodactylum croceum</i>	FE/SE, FP, SSC/--	Wet meadows near sea level in a few restricted locales in Santa Cruz and Monterey counties.	Aquatic larvae occur in shallow (<12 inches) water, using clumps of vegetation or debris for cover. Adults are found mammal burrows, when no breeding in aquatic habitat.
western spadefoot toad <i>Spea hammondi</i>	--/SSC/--	Grasslands, foothill woodlands, vernal pools, intermittent streams, and freshwater marshes in the Central Valley, Salinas Valley, western Santa Barbara, and coastal southern California.	A small toad with warty skin and vertical pupils. Occurs in grasslands and valley foothill woodlands, with vernal pools that are used for breeding. Outside of breeding season, they burrow in upland areas.
Reptiles			
California glossy snake <i>Arizona elegans occidentalis</i>	--/SSC/--	Discontinuous distribution in eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California.	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
coast horned lizard <i>Phrynosoma blainvillii</i>	--/SSC/--	Found in valley-foothill riparian, woodland, grassland habitats.	A wide oval-shaped lizard with pointed fringe scales along the side of their bodies. Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes; open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of native ants and other insects.
coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	--/SSC/--	Southern San Luis Obispo, Santa Barbara, Ventura, central Los Angeles, western San Bernardino, western Riverside, eastern Orange, and the majority of San Diego counties.	Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites.
northern California legless lizard <i>Anniella pulchra</i>	--/SSC/--	Occurs in dune scrub, coastal scrub, chaparral, pine-oak woodland, oak woodland, and riparian woodland.	A slender lizard without legs. Requires loose soil for burrowing, moisture, warmth, and plant cover. Burrows in washes, dune sand, loose soil near bases of slopes, and near permanent or temporary streams.
two-striped gartersnake <i>Thamnophis hammondi</i>	--/SSC/--	Found in streams and dense vegetation surrounding streams in a variety of habitats.	Measures two-to-three feet long with an olive, brown, or dark gray colored body. Have yellow stripe on each side of body (or no stripe at all). Streams and ponds in chaparral, oak woodland, and forest habitats, ideally in aquatic areas that are bordered by riparian vegetation with open spaces for basking (Los Padres Forest Watch 2013).

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western pond turtle <i>Emys (=Actinemys) marmorata</i>	--/SSC/--	Found in uplands and permanent/nearly permanent water sources.	A small-to-medium sized turtle with a dark brown or dull olive shell. Permanent ponds, lakes, streams, irrigation ditches or permanent pools along intermittent streams, sandy banks (Morey 2000), and nearby uplands.
Birds			
bank swallow <i>Riparia riparia</i>	MBTA/ST/--	Migrates throughout all of California. Year-round resident on the San Mateo Peninsula, Sacramento River, and northern Sierra Nevada to plains east of the Cascades.	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, or ocean to dig nesting hole.
burrowing owl <i>Athene cunicularia</i>	MBTA/SSC/--	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast.	Small owl (approximately 8 inches tall) with bright yellow eyes that occurs in open, flat to rolling grasslands, deserts, and scrublands characterized by low-growing vegetation. Requires rodent burrows for roosting and nesting.
California black rail <i>Laterallus jamaicensis coturniculus</i>	MBTA/SSC, FP/--	Year-round resident in the Lower Colorado River and greater San Francisco Bay Area.	Inhabits freshwater marshes, wetland meadows, and the shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year & dense vegetation for nesting habitat.
Cooper's hawk <i>Accipiter cooperii</i>	MBTA/--/--	Woodlands and forests throughout California and beyond.	Small raptor with a light to buffy underside and dark wings and back. Preys upon medium-sized birds and nests approximately 20 feet high in various trees.

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grasshopper sparrow <i>Ammodramus savannarum</i>	MBTA/SSC/--	Grasslands along coastal California, the western side of the Sacramento Valley and Delta, and eastern Sierra-Nevada Foothills.	Small brown sparrow that prey mainly on grasshoppers and nests at the base of grass clumps.
great blue heron <i>Ardea herodias</i>	MBTA/--/--	Year-round resident throughout Central Valley, San Francisco Bay, from Marin County to Yolo County, the Salton Sea, and Colorado River. Nonbreeding resident elsewhere in California.	Blue-grey heron with a light face and throat, and dark blue head plumes. Found in freshwater, brackish, and marine wetlands, as well forage in flooded agricultural fields. Nests in colonies in trees located adjacent to waterbodies, rivers, estuaries, and marshes.
great egret <i>Ardea ardea</i>	MBTA/--/--	Year-round in the California Coast, Central Valley, and Colorado River.	Large white bird in the heron family that frequently hunts for aquatic prey along numerous wetlands and grasslands. Nests colonially in trees near open water.
golden eagle <i>Aquila chrysaetos</i>	MBTA/FP, WL/--	Found in year-round in much of California in tundra, shrublands, grasslands, woodland-brushlands, and coniferous forests. Generally absent from the Central Valley and Sonora Desert.	Large dark brown eagle with a golden sheen on the back of the head and neck. Broad expanses of open country are required for hunting while nesting primarily occurs in rugged mountainous areas with large trees or on cliffs (and sometimes in wetland, riparian and estuarine habitats).
Least bell's vireo <i>Vireo bellii pusillus</i>	FE, MBTA/SE/--	Nests in riparian vegetation along rivers of southern California, with patches of breeding habitat documented along the Salinas River in southern Monterey and northern San Luis Obispo counties, and in southern Inyo County.	Small bird with short rounded wings and short, straight bills. Faint white eye ring. Feathers are mostly gray above and pale below. Nests placed along margins of bushes or on low twigs projecting into pathways, usually willow, <i>Baccharis</i> , and mesquite.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
loggerhead shrike <i>Lanius ludovicianus</i>	MBTA/SSC/--	Found in grasslands.	A black, white and grey passerine that generally occurs in open country with scattered shrubs and trees. Sits on low perches to scan for prey (rodents, lizards, birds, and insects).
long-eared owl <i>Asio otus</i>	MBTA/SSC/--	Year-round resident in coastal California and Sierra-Nevada Foothills.	Large brown owl that roosts and nests in forests, and forages in open grasslands, shrublands, and forests. Nests in stick nests abandoned by other birds and, infrequently, uses cavities or cliffs.
northern harrier <i>Circus hudsonius</i>	MBTA/SSC/--	Found in meadows, grasslands, open rangelands, desert sinks and wetlands. Nests in the Modoc Plateau, along the California coast, and in the greater San Francisco Bay Area and Central Valley.	A slender, long tailed hawk with an owl-like face. Frequents meadows, grasslands, open rangeland, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas.
peregrine falcon <i>Falco peregrinus anatum</i>	FD, MBTA/SD, FP/--	Year-round throughout most of California, except for northern Sierra Nevada, Central Valley, and interior Southern California.	Forages near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open, elevated site (cliffs, tall isolated trees, high bridges, and power transmission towers).

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
prairie falcon <i>Falco mexicanus</i>	MBTA/--/--	Found in grasslands, rangelands, savannahs, desert scrub, and agricultural fields.	A medium-to-large sized falcon with a gray-brown (sandy) colored body above and dark mottling below; has a large dark eye, dark ear patch, and white line over the eye. Dry, open country, including grassland, desert, and farmland around lakes and reservoirs, also above treeline in high mountains (National Audubon Society 2019). Nests primarily on cliffs, but will also use trees, powerline towers, caves, and buildings.
purple martin <i>Progne subis</i>	MBTA/SSC/--	Found in riparian habitat, forests, and woodlands.	A dark bluish-purple swallow which is an uncommon to rare, local summer resident that occurs in a variety of wooded, low-elevation habitats. Forages over riparian areas, forest and woodland, and found in a variety of open habitats in migration.
saltmarsh common yellowthroat <i>Geothlypis trichas sinuosa</i>	MBTA/SSC/--	Coastal areas in Marin County and the San Mateo Peninsula, and areas along San Pablo Bay and the southern portion of San Francisco Bay.	Resident of fresh and salt water marsh and swamps throughout San Francisco Bay. Requires thick, continuous cover down to water surface for foraging, and tall grasses, bulrush patches, and/or willows for nesting.
short-eared owl <i>Asio flammeus</i>	MBTA/SSC/--	Permanent resident along the Coast from Del Norte County to Monterey County (rare in summer north of SF Bay), north of Nevada County in Sierra Nevada, plains east of the Cascades, and Mono County.	Large brown owl of grasslands, marshes, and some agricultural lands of the San Joaquin Valley. Nests on the ground in grasslands.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
snowy egret <i>Egretta thula</i>	MBTA/--/--	Year-round in San Francisco Bay, Sacramento-San Joaquin Delta, Central Valley, Salton Sea, and Colorado River. Winters along the Southern California coast and migrates through the southern 2/3 of the state.	Nest in colonies on thick vegetation on islands in salt and freshwater marshes and swamps. Forages in estuaries, marshes, tidal channels, shallow marine bays, agricultural fields, and other wetlands.
southwestern willow flycatcher <i>Empidonax traillii extimus</i>	FE, MBTA/SE/--	Found in riparian areas in dense vegetation.	Small bird with light-colored wingbars. Body is brownish-olive to gray-green above. Breeds in relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes and reservoirs (Southwestern Willow Flycatcher Recovery Team 2002). Nests are typically constructed within 15 feet of ground.
Swainson's hawk <i>Buteo swainsoni</i>	MBTA/ST/--	Lower Sacramento and San Joaquin valleys, Klamath Basin, and Butte Valley. Recent breeding in Santa Clara County and expected elsewhere in greater San Francisco Bay Area.	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
tricolored blackbird <i>Agelaius tricolor</i>	MBTA/SET, SSC/--	Found in agricultural fields and dense, emergent vegetation in wetlands	Medium-sized blackbird with a black body and glossy blue tint. Shoulder patches are red and bordered with white. Found in cattails and tules (<i>Scirpus</i> spp.), Himalayan Blackberry (<i>Rubus discolor</i>), and other vegetation surrounding wetlands. Also found in agricultural and grain fields, grasslands, feedlots, riparian scrub habitats and vernal pools.
white-tailed kite <i>Elanus leucurus</i>	MBTA/FP/--	Found in open grasslands and savannas.	A medium-sized grey hawk with long, pointed wings. Yearlong resident in coastal and valley lowlands; rarely away from agricultural areas. Inhabits herbaceous and open staged of moist habitats mostly in cismontane areas.
yellow-breasted chat <i>Icteria virens</i>	MBTA/SSC/--	Breeds throughout California, except for northern Sierra Nevada and Cascades.	Inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.
yellow warbler <i>Setophaga petechial</i>	MBTA/SSC/--	Found in streamside thickets in the west.	This yellow warbler has yellow body with yellow-green wings, yellow wing bars, and yellow tail patches. Its black eye is outlined by a thin yellow eye-ring outlines black eye (Bird Watcher's Digest 2019). Found in riparian willows and cottonwoods, old orchards, farm hedgerows, streamside thickets, suburbs and parks (Bird Watcher's Digest 2019)

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
Mammals			
American badger <i>Taxidea taxus</i>	--/SSC/--	Occurs in grasslands, chaparral, and oak woodlands.	A heavy bodied, short-legged, grayish mammal that has a white medial stripe from the nose over the top of the head and down the back. Open grassland, chaparral, and oak woodland with friable soils. Needs sufficient food and open, uncultivated ground.
giant kangaroo rat <i>Dipodomys ingens</i>	FE/SE/--	Occurs in grasslands.	A large rat with large, fur-lined cheek pouches, long tails, and five toes. They prefer annual grassland on gentle slopes with friable, sandy-loam soils. However, most remaining populations are on poorer, marginal habitats which include shrub communities on a variety of soil types and on slopes (USFWS 2017).
Monterey shrew <i>Sorex ornatus salarius</i>	--/SSC/--	Riparian, wetland & upland areas in the vicinity of the Salinas River delta.	Prefers moist microhabitats. feeds on insects & other invertebrates found under logs, rocks & litter.
pallid bat <i>Antrozous pallidus</i>	--/SSC/High (WBWG)	Occurs in oak woodlands, forests.	A large bat with long forward pointing ears that occur in desert areas, moister oak woodlands, and redwood forests of coastal regions. At lower elevations, highly associated with oak woodlands and oak savanna.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
Salinas pocket mouse <i>Perognathus inornatus</i> <i>psammophilus</i>	--/SSC/--	Sandy loams in the Salinas Valley, but recent records from southern Monterey and northern San Luis Obispo counties.	A small rodent with a buff to pinkish back with blackish hairs and a white underside. Habitat relations are not well known but literature reported habitat for <i>P. inornatus</i> on the Carrizo Plain (previously considered to include <i>psammophilus</i>) as sandy loam flats dominated by herbs and grasses.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE/ST/--	Found in open areas, grasslands, scattered shrubs.	A small, tan to yellowish-grey fox with large ears and a long bushy tail. Open, level areas with loose-textured soils supporting scattered, shrubby vegetation with little human disturbance represent suitable habitats for kit foxes. Some agricultural areas may support these foxes.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	--/SSC/High (WBWG)	Found in a variety of habitats, including forests, arid desert scrub, caves, and buildings.	Medium-sized bat with long, flexible ears, and small lumps on each side of the snout. Requires caves, mines, tunnels, buildings, tree cavities, or other human-made structures for roosting.
Tulare grasshopper mouse <i>Onychomys torridus</i> <i>tularensis</i>	--/SSC/--	Found in grasslands and shrublands.	A stout bodied mouse with a short, relatively thick club-like tail. Body is bicolored with the head and upperparts pale brown to gray or pinkish- cinnamon and the underparts white (N. L. Brown and D.F. Williams 2017). Arid shrubland communities in hot, arid grassland and shrubland associations, including blue oak woodlands.

Common and <i>Scientific Name</i>	Legal Status Federal/State/CNPS or WBWG	General Habitat	Micro Habitat/Description
<i>Oncorhynchus mykiss irideus</i>		their tributaries. Species is blocked at the Hernandez, San Antonio, Nacimiento, Lopez, and Salinas dams.	
Steelhead - central California coast DPS <i>Oncorhynchus mykiss irideus</i>	FT/--/--	DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays up to Chipps Island.	
tidewater goby <i>Eucyclogobius newberryi</i>	FE/SSC/--	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County, to the mouth of the Smith River.	Coastal lagoons and brackish bays at freshwater stream mouths.
unarmored threespine stickleback <i>Gasterosteus aculeatus williamsoni</i>	FE/SE, FP/--	Slow-moving reaches of streams and rivers in the upper Santa Clara River and tributaries in Los Angeles County, San Antonio Creek in Santa Barbara County, and the Shay Creek vicinity in San Bernardino County. San Felipe Creek in San Diego County may but is not currently known to support the species.	Quiet-water microhabitats in streams and rivers that are shaded by dense and abundant vegetation. Adults reproduce throughout the year with less activity from October to January. Reproduction occurs in aquatic vegetation with slow moving water.

List of Abbreviations for Federal, State, CDFW California Rare Plant Rank, and Other Species Status:

Federal:

FC = Federal candidate

FD = Federally De-listed

FE = Federal endangered

FT = Federal threatened

MBTA = Migratory Bird Treaty Act

State:
CT = State candidate threatened
FP = State fully protected species
R = State rare
SE = State endangered

ST = State threatened
SD = State De-listed
SSC = State species of special concern
WL = Watch List

California Rare Plant Ranks:

1A = plants presumed extirpated in California and either rare or extinct elsewhere.
1B = plants are considered rare, threatened, or endangered in California and elsewhere.
2B = plants are rare, threatened, or endangered in California, but more common elsewhere.
0.1 - Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 - Fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3 - Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Western Bat Working Group (WBWG) Priority Status: (available: wbwg.org/matrices/species-matrix/)

High = species “considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. Species is imperiled or are at high risk of imperilment.”
Moderate = species warrants “evaluation, more research, and conservation actions of both the specie and possible threats. The lack of meaningful information is a major obstacle in adequately assessing species’ status and should be considered a threat.”

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APPENDIX D
MITIGATION MONITORING AND REPORTING PROGRAM

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MITIGATION MONITORING AND REPORTING PROGRAM SUMMARY TABLE

The following mitigation monitoring and reporting program (MMRP) summary table includes the mitigation measures identified in the California Regional Water Quality Control Board, Central Coast Region's (CCWB) final environmental impact report (FEIR) for the proposed Agricultural Order 4.0 project. For each mitigation measure, this table identifies monitoring and reporting actions that must be carried out and the monitoring schedule.

Agricultural Order 4.0 enrollees are responsible for complying with all mitigation measures in the FEIR and this MMRP summary table. Enrollees must determine whether their proposed activities (e.g., management practices) are subject to individual mitigation measures and, if applicable, take the necessary actions to ensure the mitigation measures are fully implemented. In some cases, this may involve hiring a professional (e.g., biologist, archaeologist) and becoming familiar with applicable laws and regulations.

Agricultural Order 4.0 enrollees must report their compliance with mitigation measures in the Annual Compliance Form (ACF), which is submitted as part of their overall compliance reporting for Agricultural Order 4.0. As the CEQA Lead Agency, CCWB is ultimately responsible for ensuring compliance with the mitigation measures identified in the FEIR. CCWB will accomplish this through review of ACFs to confirm that enrollees' reported actions fully meet the requirements of the applicable mitigation measures. CCWB will also confirm mitigation measure compliance during periodic inspections of individual ranches and/or operations.

The MMRP will be made available to enrollees and they may use the checklist to help document their compliance with applicable mitigation measures. CCWB may also use the MMRP checklist to confirm and document compliance.

ACRONYMS AND ABBREVIATIONS

ACF	Annual Compliance Form
BMPs	best management practices
CCWB	California Regional Water Quality Control Board, Central Coast Region
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
EIR	environmental impact report
ESA	Environmental Site Assessment
FEIR	final environmental impact report
HRIR	Historic Resources Identification Report
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program

NAHC	Native American Heritage Commission
PRC	Public Resources Code
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCR	tribal cultural resource

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
<i>Agriculture and Forestry Resources</i>				
None.				
<i>Air Quality</i>				
None.				
<i>Biological Resources</i>				
BIO-1	<p>Avoid and Minimize Impacts on Sensitive Biological Resources.</p> <p>Where construction/installation or routine maintenance and repair of management practices could impact sensitive vegetation communities (e.g., riparian habitat or wetlands adjacent to the construction area) and special-status species, as defined and listed in Section 3.3.3 and Appendix C, enrollees must use the least impactful effective management practice to avoid impacts to such species and habitat. Where <u>application targets and limits</u>, <u>discharge targets and limits</u>, and <u>receiving water, or application limits</u> cannot be achieved without incurring potential impacts, individual enrollees, coalitions, or third-party representatives must implement the following measures to reduce potential impacts to levels that are less than significant.</p> <ul style="list-style-type: none"> ▪ Avoid and minimize disturbance of riparian and other sensitive vegetation communities. ▪ Avoid and minimize disturbance to areas containing special-status plant or animal species. 	<ol style="list-style-type: none"> 1. Confirm that the least impactful effective management practice is selected to avoid impacts to biological resources. (Enrollee) 2. Where areas potentially containing sensitive biological resources cannot be avoided, confirm performance of habitat and species assessment. (Enrollee) 3. Confirm that maintenance or repair activities will not disturb any special-status species. (Enrollee) 4. For activities proposed during nesting season, confirm performance of 	<ol style="list-style-type: none"> 1. During design of management practice(s). 2. Prior to construction / installation of management practice(s), if applicable. 3. Prior to undertaking proposed activity. 4. Prior to undertaking proposed activity, if applicable. 5. Prior to undertaking any construction / installation or other activities that could adversely affect sensitive biological resources. 	

Mitigation Measure	Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> ▪ Where construction in areas that may contain sensitive biological resources cannot be avoided through the use of alternative management practices, conduct an assessment of habitat conditions and the potential for presence of sensitive vegetation communities or special-status plant and animal species prior to construction. This may include the hiring of a qualified biologist to identify riparian and other sensitive vegetation communities and/or habitat for special-status plant and animal species. ▪ When conducting maintenance or repair on facilities such as sediment basins, denitrifying bioreactors, or other facilities that may provide habitat for species, ensure that such activities will not disturb any special-status species that may be present. If conducting maintenance or repair activities during the nesting season (generally February 1 to August 31), inspect the facilities to ensure that nesting birds are not present within or adjacent to areas where such activities will occur. If nests or young are identified in such areas, conduct the activities outside of the nesting season. ▪ Where adverse effects on sensitive biological resources cannot be avoided, undertake additional CEQA review and develop a restoration or compensation plan in consultation with the California Department of Fish and Wildlife to mitigate the loss of the resources. 	<p>confirm performance of survey for nesting birds and avoidance of nests / young. (Enrollee)</p> <p>6. In the event avoidance of sensitive biological resources is not feasible, confirm additional CEQA review and appropriate consultation with CDFW. (Enrollee & CCWB)</p>		

Mitigation Measure	Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
<i>Cultural Resources</i>			
CUL-1 Cultural Resources Inventory, Evaluation of Resources for Significance, and Implementation of Avoidance and/or Minimization Measures. For proposed actions or management practices that involve modifications to previously undisturbed soils (i.e., below the levels of current agricultural practices, or in areas that have not previously been cultivated or developed) or a structure that may qualify as a historical resource, the following steps must be taken to avoid and/or reduce potential impacts on significant cultural resources: <ul style="list-style-type: none"> ▪ The enrollee or third-party must retain an archaeologist who meets the U.S. Secretary of Interior's professional standards as an archaeologist to conduct a records search at the regional Information Center of the California Historical Resources Information System (CHRIS). The record search must determine if cultural resources have previously been identified in the proposed disturbance area and whether the proposed disturbance area has previously been subject to archaeological pedestrian survey. ▪ The professional archaeologist must contact the NAHC to request a search of the Sacred Lands files and a list of tribes with a traditional and cultural affiliation with the proposed disturbance area. The archaeologist must contact the tribes identified by the NAHC to request information 	<ol style="list-style-type: none"> 1. Confirm that the measure is included in contract documents, if any. (Enrollee) 2. Confirm that construction workers are fully aware of all requirements pertaining to cultural resources and receive basic training on how to identify potential cultural resources. (Enrollee) 3. For applicable activities, confirm retention of a qualified archaeologist to conduct a records search, contact tribes, and conduct pedestrian survey, as necessary. (Enrollee) 4. Confirm any identified archaeological sites, and historic buildings and structures, are recorded on proper forms. (Enrollee) 	<ol style="list-style-type: none"> 1. During preparation of contract and specifications. 2. Prior to construction / installation of applicable management practices. 3. Prior to construction / installation of applicable management practices. 4. Prior to construction / installation of applicable management practices. 5. Prior to construction / installation of applicable management practices. 6. Prior to construction / installation of applicable management practices. 7. Prior to commencement of any excavation activities. 8. During and potentially after construction / installation, if applicable. 	

Mitigation Measure	Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
<p>about sites and resources that may not have been identified during the record search process, including TCRs, and whether the tribes have any concerns about the proposed action.</p> <ul style="list-style-type: none"> ▪ If a pedestrian survey has not previously been conducted on the property, a survey must be conducted by a qualified archaeologist. All identified archaeological sites and historic buildings and structures must be recorded on California Department of Parks and Recreation 523 Site Record forms. A Historic Resources Identification Report (HRIR) must be prepared to document the findings of the study; the report must be submitted to the CCWB and the CHRIS Information Center. If the property has been subject to previous study, additional survey is not required if no cultural resources, including TCRs, were identified during the study and the age and adequacy of the report are considered sufficient by the consulting archaeologist for the purposes of the present project. The report from the previous survey can then be used to satisfy the CEQA requirements for historical resources. If the property has been subject to previous survey and a cultural resource has been identified within the proposed disturbance area, a qualified archaeologist must conduct a pedestrian survey to assess the current condition of the resource relative to the proposed action. 	<p>5. If historical resource(s) are identified within the proposed disturbance area, confirm avoidance of those resource(s) to the extent feasible. (Enrollee)</p> <p>6. If historical resource(s) cannot be avoided, confirm preparation of a data recovery plan and submittal to CCWB. (Enrollee)</p> <p>7. Confirm that submitted data recovery plan adequately provides for recovery of scientifically important information about historical resource(s) to be impacted, and that consulting tribes are provided opportunity to review. (CCWB)</p> <p>8. If approved, confirm that data recovery plan is properly and fully implemented. (Enrollee)</p> <p>9. In the event that cultural resources are</p>	<p>9. During construction / installation, if necessary.</p> <p>10. During construction / installation, if necessary.</p>	

Mitigation Measure	Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
<ul style="list-style-type: none"> If cultural resources are identified either by the record search or pedestrian survey, the qualified archaeologist must evaluate the significance of archaeological resources, per the State Water Resources Control Board (SWRCB) guidelines¹. Note that buildings that would be impacted by the proposed action would require evaluation for CRHR eligibility by a qualified architectural historian. If the cultural resource(s) are determined to be historical resource(s) (i.e., listed or eligible for listing in the CRHR), the enrollee or third-party, in coordination with the qualified archaeologist, must avoid impacting the resource(s) to the extent feasible. This would include relocating or redesigning proposed management practice(s) such as to avoid the resource or leaving structures in place in setback areas or otherwise preserving structure(s) that are listed or eligible for listing. If the historical resource(s) cannot be completely avoided, the qualified archaeologist must develop and implement a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource(s) that may be impacted by the proposed activity. The data recovery plan must be prepared and submitted to 	<p>encountered, ensure that work stops immediately. (Enrollee)</p> <p>10. Ensure all accidentally discovered cultural resources are evaluated for inclusion in the CRHR and that avoidance measures or appropriate mitigation measures are implemented for historical resources. (Enrollee)</p>		

¹ Guidelines for Applicants and their Consultants on Preparing Historic Property Identification Reports for the Clean and Drinking Water State Revolving Fund Programs. Revised 9/12/19. While these guidelines were developed for other SWRCB programs, they provide protocols that can generally be applied to other programs where cultural resources must be addressed.

Mitigation Measure	Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
<p>CCWB for approval, and the data recovery plan must be approved by CCWB prior to any excavation taking place that may impact the resource(s). CCWB must ensure that data recovery plans for Native American archaeological sites have the opportunity to be reviewed by consulting tribes. Archaeological sites known to contain human remains must be treated in accordance with the provisions of Section 7050.5 of the Health and Safety Code (see Mitigation Measure CUL-3). For any artifacts removed during project excavation or testing, the professional archaeologist must provide for the curation of such artifact(s). For structure(s) evaluated as a historical resource(s) that cannot be avoided, reconstruction of the structure(s) at an off-site location, consistent with the Secretary of the Interior's Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings, may be an appropriate minimization measure that may be implemented in addition to, or as part of, the data recovery plan.</p> <ul style="list-style-type: none"> Provisions must be made by the enrollee or third-party for the accidental discovery of historical or unique archaeological resources during construction of applicable management practices, pursuant to CEQA Guidelines 			

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	15064.5(f). If cultural resources ² are uncovered during construction, work must immediately cease within 50 feet of the finds and the materials must be evaluated by a qualified archaeologist. If the finds are determined to be a historical or unique archaeological resource, avoidance measures or appropriate mitigation (e.g., data recovery, documentation, and curation) must be implemented.			
CUL-2	<p>Comply with State Laws Pertaining to the Discovery of Paleontological Resources.</p> <p>If any items of paleontological interest are discovered during construction of management practices or other activities (e.g., installation of monitoring wells), work must be immediately suspended within 50 feet of the discovery site, or to the extent needed to protect the site. Discovered paleontological resources must be evaluated by a qualified paleontologist who meets the Society for Vertebrate Paleontology's professional requirements. If it is determined that the activities could damage a unique paleontological resource, mitigation must be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the State CEQA Guidelines. If avoidance is not feasible, the paleontologist must</p>	<ol style="list-style-type: none"> 1. Confirm that the measure is incorporated into contract documents, if any. (Enrollee) 2. Confirm that construction workers are fully aware of all requirements pertaining to the discovery of paleontological resources and receive basic training on how to identify potential paleontological resources. (Enrollee) 	<ol style="list-style-type: none"> 1. During preparation of contract and specifications. 2. Prior to construction / installation of management practices or other activities involving ground disturbance. 3. During construction / installation of management practices or other ground-disturbing activities. 	

² Native American archaeological materials or indicators may include, but are not limited to, arrowheads and chipped stone tools; bedrock outcrops and boulders with mortar cups; ground stone implements (grinding slabs, mortars, and pestles) and locally darkened midden soils containing some of the previously listed items plus fragments of bone, fire affected stones, shellfish, or other dietary refuse. Historic era archaeological materials may include, but not be limited to: adobe or fired brick; metal objects such as nails, hinges, machine parts, etc.; household wares such as pottery or glass artifacts or shards; tin cans; milled lumber, etc.

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	develop a treatment plan in consultation with CCWB. Work must not be resumed until authorization is received from CCWB and any recommendations received from the qualified paleontologist are implemented.	<ol style="list-style-type: none"> 3. In the event paleontological resources are identified during excavation and related activities, confirm that work stops immediately. (Enrollee) 4. If needed, confirm that a qualified paleontologist is retained to evaluate discovered resources. (Enrollee) 5. If unique paleontological resource(s) are identified and may be impacted, confirm that qualified paleontologist implements appropriate mitigation and/or develops a treatment plan in consultation with CCWB, as appropriate. (Enrollee) 6. Confirm treatment plan and mitigation approach are appropriate and sufficiently avoid or minimize impacts to unique paleontological resource(s). (CCWB) 	<ol style="list-style-type: none"> 4. Prior to resuming work activities in affected area. 5. Prior to resuming work activities in affected area. 6. Prior to resuming work activities in affected area. 	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
CUL-3	<p>Comply with State Laws Pertaining to the Discovery of Human Remains.</p> <p>If human remains are discovered during construction, the requirements of Health and Safety Code Section 7050.5 must be followed. Potentially damaging excavation must halt on the construction site within a minimum radius of 100 feet of the remains, and the county coroner must be notified. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, the NAHC must be contacted by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). Pursuant to the provisions of PRC Section 5097.98, the NAHC must identify a most likely descendent (MLD). The MLD designated by NAHC must have at least 48 hours to inspect the site and propose treatment and disposition of the remains and any associated grave goods. The enrollee must work with the MLD to ensure that the remains are removed to a protected location and treated with dignity and respect. Ground disturbing activities must not resume until these requirements are met.</p>	<ol style="list-style-type: none"> 1. Confirm that measure is incorporated in contract documents, if any. (Enrollee) 2. Confirm that construction workers are fully aware of all requirements pertaining to human remains. (Enrollee) 3. In the event that human remains are encountered, confirm that work is stopped immediately and California Health and Safety Code requirements are followed and the county coroner is contacted. (Enrollee) 4. Confirm that any discoveries of human remains are evaluated and addressed properly as outlined in the measure. (Enrollee) 	<ol style="list-style-type: none"> 1. During preparation of contract and specifications. 2. Prior to construction / installation of management practices or other activities involving ground disturbance. 3. During construction / installation, if applicable. 4. During construction / installation, if applicable. 	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
Greenhouse Gas Emissions				
None.				
Hazards and Hazardous Materials				
HAZ-1	Hazardous Materials Spill Prevention, Control, and Counter-Measures for Land Disturbance Activities. For Agricultural Order 4.0 land disturbance activities that are not subject to the Construction General Permit, Agricultural Order 4.0 enrollees or their contractors must maintain/implement the following: <ul style="list-style-type: none"> ▪ A list of hazardous materials present on site during construction, to be updated as needed along with product safety data sheets and other information regarding storage, application, transportation, and disposal requirements; ▪ A hazardous materials communication plan, which lists contacts for emergency services, hazardous materials spill response agencies, and wildlife agencies, as well as protocols for communication in the event of a spill; ▪ Standards for secondary containment of hazardous materials stored on site; ▪ Spill response procedures based on product and quantity. The procedures must include spill response/clean-up materials to be used, location of such materials within the construction site, and disposal protocols. 	1. Confirm that measure is included in contract documents, if any. (Enrollee) 2. Confirm list of hazardous materials, standards for secondary containment, and spill response procedures are on site/documented. (Enrollee) 3. Confirm preparation of a hazardous materials communication plan that includes all information identified in the mitigation measure. (Enrollee)	1. During preparation of contract and specifications. 2. Prior to land disturbance activities. 3. Prior to land disturbance activities.	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
HAZ-2	<p>Review Proximity to Existing Known Hazardous Materials Cleanup Sites and Conduct an Environmental Site Assessment if Proposed Activity Is Located on or in Close Proximity to an Area of Hazardous Materials Contamination.</p> <p>Agricultural Order 4.0 enrollees proposing construction/installation of management practices involving excavation or ground disturbance must evaluate the proximity of proposed management practices to existing known hazardous material cleanup sites. Prior to final design, Agricultural Order 4.0 enrollees, or their contractors, must review the planned management practice footprint in relation to records of hazardous materials sites in the SWRCB's GeoTracker database and the California Department of Toxic Substances Control's EnviroStor database.</p> <p>If the proposed management practice is located on or within 100 feet of a documented hazardous material contamination site, for which cleanup activities have not been completed or been successful, the enrollee or its contractor must commission a Phase I environmental site assessment (ESA) to more fully characterize the past land uses and potential for soil and/or groundwater contamination to occur at or in close proximity to the site.</p> <p>If the Phase I ESA demonstrates a reasonable likelihood that contamination remains within the management practice's area of disturbance, the enrollee or its contractor must commission a Phase II ESA, including soils testing, to characterize the extent of the</p>	<ol style="list-style-type: none"> For applicable activities, confirm applicable databases (i.e., GeoTracker and EnviroStor) are consulted prior to final design. (Enrollee) If applicable, confirm Phase I and/or Phase II ESAs are commissioned, per requirements identified in this measure. (Enrollee) Confirm that construction is conducted in accordance with recommendations of the Phase II ESA, if applicable. (Enrollee) Confirm proper disposal of contaminated soil/hazardous materials during construction, per applicable laws. (Enrollee) 	<ol style="list-style-type: none"> Prior to final design of management practices involving excavation or ground disturbance. Prior to final design of applicable management practices. During construction / installation of applicable management practices. During construction / installation of applicable management practices. 	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	contamination and develop ways to avoid the contaminated areas during management practice design and construction. The enrollee and/or its contractor must follow all recommendations of the Phase II ESA and, to the extent feasible, design the management practice to avoid areas of contamination. In the event that it is not feasible to avoid all areas of contamination, the enrollee and/or its contractor must follow all applicable laws regarding management of hazardous materials and wastes. This includes proper disposal of any contaminated soil in a hazardous waste landfill and ensuring that workers are provided with adequate personal protective equipment to prevent unsafe exposure.			
Hydrology and Water Quality				
HWQ-1	<p>Implement Construction Best Management Practices for Erosion Control.</p> <p>Where construction of management practices would not be subject to the Construction General Permit or local grading ordinance, Agricultural Order 4.0 enrollees must implement the following measures during construction of the improvements, or must implement alternative measures that are demonstrated to be equally or more effective:</p> <ul style="list-style-type: none"> Implement practices to prevent erosion of exposed soil and stockpiles, including watering for dust control, establishing perimeter silt fences, and/or placing fiber rolls. 	<ol style="list-style-type: none"> Confirm that BMPs are included in contract documents, if any. (Enrollee) Confirm that all BMPs are implemented fully, and that erosion control measures use the best available technology that is economically achievable. (Enrollee) 	<ol style="list-style-type: none"> During preparation of contract and specifications. During construction / installation of applicable management practices. 	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	<ul style="list-style-type: none"> Minimize soil disturbance areas. Implement practices to maintain water quality, including silt fences, stabilized construction entrances, and storm drain inlet protection. Where feasible, limit construction to dry periods. Revegetate disturbed areas. <p>The performance standard for these erosion control measures is to use the best available technology that is economically achievable. These measures may be included in SWPPP requirements, as appropriate.</p>			
HWQ-2	<p>Place Management Practices that Involve Retention and/or Treatment of Surface Runoff Outside of 100-Year Floodplains or Tsunami or Seiche Inundation Zones.</p> <p>To the extent feasible, Agricultural Order 4.0 enrollees must place structural management practices that involve retention or treatment of runoff outside of Federal Emergency Management Agency-designated 100-year floodplains or identified tsunami or seiche inundation zones. Where seiche inundation zones have not been mapped, enrollees should use good judgment in not placing structural management practices for sediment retention in areas immediately adjacent to large standing waterbodies that could be inundated during a seiche event.</p>	<p>1. Confirm that applicable management practices are not located within 100-year floodplains, tsunami or seiche inundation zones. (Enrollee)</p>	<p>1. During design of applicable management practices.</p>	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
Noise and Vibration				
NOI-1	Reduce Noise Generated by Pumps or Other Stationary and Permanent Noise-Generating Equipment. If stationary and permanent noise-generating equipment is proposed to be installed, enrollees or third-party members must ensure that noise from such facilities does not exceed applicable local noise standards or limits specified in the applicable county ordinances and general plan noise elements, unless otherwise excepted.	1. Confirm that measure is included in contract documents, if any. (Enrollee) 2. Confirm equipment contains proper enclosures/barriers and is in good operating condition. (Enrollee) 3. Confirm that noise does not exceed local standards and/or applicable ordinances. (Enrollee)	1. During preparation of contract and specifications. 2. Prior to and during construction or installation, and during routine maintenance or repair. 3. Prior to operation.	
Tribal Cultural Resources				
CUL-1	See Cultural Resources above.			
CUL-3	See Cultural Resources above.			
Wildfire				
None.				