

ALAMEDA COUNTY RESOURCE CONSERVATION DISTRICT

INITIAL STUDY AND PROPOSED MITIGATED NEGATIVE DECLARATION

FOR

THE ALAMEDA COUNTY VOLUNTARY LOCAL PROGRAM

July 2012

Prepared by

Alameda County Resource Conservation District
3585 Greenville Rd, Suite 2
Livermore, CA 94550-6707
Contact: Leslie Koenig (925) 371-0154, ext. 115

This Report Has Been Prepared Pursuant to the
California Environmental Quality Act of 1970
State of California

TABLE OF CONTENTS

| | | |
|-----------|--|-----------|
| 1. | PREFACE..... | 3 |
| 2. | PROGRAM DESCRIPTION..... | 3 |
| 3. | REPORT PREPARATION..... | 4 |
| 4. | MANAGEMENT PRACTICES | 4 |
| | <i>POND RESTORATION.....</i> | <i>5</i> |
| | <i>STREAM RESTORATION.....</i> | <i>12</i> |
| | <i>LIVESTOCK AND WILDLIFE WATER DISTRIBUTION</i> | <i>16</i> |
| | <i>EROSION CONTROL</i> | <i>19</i> |
| 5. | ROUTINE AND ONGOING AGRICULTURAL ACTIVITIES | 24 |
| 6. | ENVIRONMENTAL SETTING | 26 |
| 7. | ENVIRONMENTAL CHECKLIST | 27 |
| | DETERMINATION | 27 |
| 8. | DISCUSSION OF ENVIRONMENTAL IMPACTS..... | 29 |
| | I. AESTHETICS | 29 |
| | II. AGRICULTURE RESOURCES: | 30 |
| | III. AIR QUALITY..... | 31 |
| | IV. BIOLOGICAL RESOURCES..... | 32 |
| | V. CULTURAL RESOURCES | 46 |
| | VI. GEOLOGY AND SOILS | 48 |
| | VII. GREENHOUSE GAS EMISSIONS..... | 50 |
| | VIII. HAZARDS AND HAZARDOUS MATERIALS | 52 |
| | IX. HYDROLOGY AND WATER QUALITY..... | 55 |
| | X. LAND USE PLANNING..... | 57 |
| | XI. MINERAL RESOURCES | 59 |
| | XII. NOISE..... | 60 |
| | XIII. POPULATION AND HOUSING | 62 |
| | XIV. PUBLIC SERVICES | 63 |
| | XV. RECREATION | 65 |
| | XVI. TRANSPORTATION/TRAFFIC..... | 66 |
| | XVII. UTILITIES AND SERVICE SYSTEMS | 67 |
| | XII. MANDATORY FINDINGS OF SIGNIFICANCE | 69 |
| 9. | REFERENCES..... | 71 |

APPENDIX A

Figure 1: Project Area

Figure 2: Alameda County Land Use

Figure 3: Covered Species

Figure 4: Other Sensitive Species and Vegetation Community Occurrences

Table 1. Alameda County Non-Covered Special Status Wildlife Species

Table 2. Alameda County Sensitive Plant Species

APPENDIX B

Mitigation, Monitoring and Reporting Plan

1. PREFACE

This initial study and proposed mitigated negative declaration has been prepared in accordance with the provisions of the California Environmental Quality Act (CEQA) and its implementing guidelines. It assesses the potential environmental impacts of the proposed Alameda County Voluntary Local Program (VLP or Program). This Program is pending approval and authorization pursuant to Section 2086 of the California Fish and Game Code (FGC) and implementing regulations in Section 786 *et seq.* of Title 14 of the California Code of Regulations (CCR). Upon approval of the Program, the take of candidate, threatened, or endangered species incidental to routine and ongoing agricultural activities that occurs while the specified management practices are followed is not prohibited (FGC §2086(c)).

The VLP is a CEQA certified regulatory program pursuant to Section 15251(p) of the Public Resources Code. The Alameda County Resource Conservation District is the Lead Agency and has prepared this initial study and proposed mitigated negative declaration (IS/MND). The procedures followed to prepare this IS/MND are consistent with the CEQA requirements for a certified regulatory program, as provided in PRC §21080.5 and Article 17 of the State CEQA Guidelines (CCR §§15250 – 15253).

This document consists of an environmental checklist and a discussion of topics addressed in the checklist.

2. PROGRAM DESCRIPTION

The Alameda County Resource Conservation District (ACRCD) is requesting authorization of the VLP and take authorization pursuant to Section 2086 of the California Fish and Game Code and implementing regulations in Section 786 *et seq.* of Title 14 of the California Code of Regulations. The VLP is a coordinated approach among ACRCD and the Department of Fish and Game (Department) that provides authorization for take of candidate, threatened, or endangered species incidental to routine and ongoing agricultural activities if those activities incorporate specified habitat management practices. The Alameda County VLP becomes effective upon issuance of a take authorization pursuant to §2086 and will be in effect for 10 years.

The VLP is a locally designed voluntary program that encourages the enhancement and maintenance of habitat for candidate, threatened and endangered species and other wildlife in ways compatible with routine and ongoing agricultural activities on farms and ranches. The ACRCD and the Department recognize that these management practices, when successful, will increase the number of individuals of candidate, threatened and endangered species in proximity to farms and ranches in Alameda County. The purpose of the Program is to encourage farmers and ranchers engaged in agricultural activities to establish locally designed programs to voluntarily enhance and maintain habitat for endangered and threatened species. The Program provides take authorization for routine and ongoing agricultural activities conducted in accordance with Cooperative Agreements entered into pursuant to the Program. Without the protection afforded through the Program, people may not choose to enhance habitat conditions for state listed species. The VLP will cover public and private lands that are managed as agricultural lands within Alameda County. The ACRCD, acting as the Program Administrator, will coordinate enrollees.

This Program specifically addresses liability for take under the California Endangered Species Act and does not necessarily satisfy any other legal requirements. For example, entities proposing projects or practices that are subject to Fish and Game Code Section 1602 must still notify the Department in accordance with Section 1600 of the California Fish and Game Code; the components of an agreement

entered into pursuant to the VLP may or may not coincide with any conditions of any required Lake and Streambed Alteration Agreement.

The VLP will also assist people who wish to restore and enhance the condition of the natural resources on property by providing technical assistance.. This Program will help achieve important water quality and habitat conservation goals in Alameda County. Many of these projects will focus on erosion control and habitat restoration. The ACRCDD will review potential projects submitted for the Program and determine whether or not these projects are appropriate to be implemented under the VLP. The ACRCDD, working with the Natural Resources Conservation Service (NRCS) will determine on an annual basis if conservation projects are the size, scale, and scope to qualify for coverage under the VLP. The NRCS will provide technical assistance on projects covered under the VLP that are funded by the Farm Bill through oversight, planning, installation, and monitoring of the projects. NRCS may also be involved in ACRCDD programs that do not utilize the Farm Bill programs as a contractor through the ACRCDD.

This Program provides take authorization for the state listed Alameda whipsnake (*Masticophis lateralis euryxanthus*) and the California tiger salamander (*Ambystoma californiense*), both state listed as threatened, hereafter referred to as the “Covered Species”.

Under the VLP, the Program Administrator (ACRCDD) and an enrollee (Cooperator) will sign a Cooperative Agreement, in which the Cooperator agrees to voluntarily carry out management practices described in the Program and their Cooperative Agreement and to abide by the conditions set forth in the VLP and the take authorizations afforded under the Program.

The Program Administrator is responsible for monitoring species and habitat conditions on enrolled properties and reporting annually to the Department on the status of species and habitats, and overall program operation.

3. REPORT PREPARATION

Lead Agency

The Alameda County Resource Conservation District is the lead agency under CEQA for the proposed project. Copies of the MND are available for review at the ACRCDD from Wednesday, July 18th through Friday, August 17th Monday through Fridays between the hours of 9:00 am and 5:00 pm.

4. MANAGEMENT PRACTICES

California Fish and Game Code §2086 requires that Voluntary Local Programs include measures to avoid and/or minimize impacts to candidate, threatened, and endangered species. These measures take the form of “management practices” that provide standard measures for avoidance of take of the Covered Species, but do not cover all possible measures that may be used. The management practices are intended to be practical, achievable and flexible while avoiding or minimizing take of listed species, and maximizing wildlife benefits without compromising the economics of the Cooperators’ agricultural operations.

The management practices were developed using the NRCS conservation practices specific standards and specifications in consultation with the US Fish and Wildlife Service (USFWS), the Department, ACRCDD and NRCS biologists, and species experts using the best scientific information available. Each management practice will be implemented to meet the minimum standards and specifications for the NRCS and will be tailored at the local level for project specific requirements based on the natural resource need at each site. More specifically, the conservation practices that were selected for the

Program were developed from The NRCS California Handbook of Conservation Practices which establishes standards for the design of measures commonly used to treat natural resource problems. These conservation practice standards are based on research, conservation field trials, and accumulated knowledge and experience of agency employees. The conservation practice standard represents the minimum details or factors that must be considered in the design of a site-specific practice or combination of practices. NRCS Standards and/or Specifications for each conservation practice are available on the web in NRCS' electronic Field Office Technical Guide, Section IV (http://efotg.sc.egov.usda.gov//efotg_locator.aspx).

During the planning process for an individual project, ACRC staff and/or its contractors will assess each proposed project site to determine if suitable habitat for the Covered Species occurs on site and, if present, determine its quality and function for the Covered Species under the VLP. Implementation of the management practices will incorporate the best known scientific information into the site conditions to ensure that the projects are being implemented to maximize wildlife and habitat benefits without compromising the economics of the Cooperators' agricultural operations.

Cooperators will implement the appropriate management practices associated with each activity covered under the Program. Each Cooperative Agreement will specify the management practices that will be carried out on the enrolled property and include a timetable for implementing the identified activities. This Program specifically addresses liability for take under the California Endangered Species Act and does not necessarily satisfy any other legal requirements. For example, Cooperators proposing projects or practices that are subject to Fish and Game Code section 1602 must still provide a separate notification to the Department.

Pond Restoration

The activities covered under this section are associated with the repair, maintenance and restoration of breeding and refugia habitat present in livestock ponds for the California tiger salamander and other native aquatic species.

The USFWS (2005) determined that standing bodies of freshwater including ponds, both natural and artificial provide critical habitat for the breeding of California tiger salamander. As natural habitats such as vernal pools continue to be altered or lost, man-made livestock ponds have become the remaining vital breeding habitat for California tiger salamanders in Alameda County. For example, California tiger salamanders breed primarily in seasonal and perennial stock ponds in the East Bay Regional Park District (EBPRD) throughout Alameda County (Bobzien and Didonato, 2007). These EBRPD ponds are maintained for habitat values and to provide water to livestock. USFWS recognizes the importance of the management of livestock ponds as habitat by private landowners, and USFWS authorizes take coverage under the federal Endangered Species Act through the 4d ruling that exempts routine and ongoing ranching activities (USFWS, 2004). The Department also recognizes the importance of continued enhancement and maintenance of these livestock ponds to the recovery of the California tiger salamander (McCamman, 2010).

The Department identified pond restoration activities in the *Status Review of the California Tiger Salamander* (McCamman, 2010) as some of the management and recovery measures that may provide population-level benefits for California tiger salamanders. These include:

1. Active management of California tiger salamander habitats, including maintenance of appropriate vegetation condition as appropriate; removal and/or control of non-native predators,
2. Restoration of ephemeral ponds to enhance existing California tiger salamander populations,

3. Encouragement of public and private stock pond management practices consistent with California tiger salamander conservation as described in the Special Rule Exempting Routine Ranching Activities (USFWS 2004).

Implementation of the activities below will result in the enhancement and/or restoration of California tiger salamander habitat by restoring critical breeding habitat, decreasing predatory species populations in suitable habitat, reducing soil erosion and sedimentation, improving and providing long-term habitat protection, and improving livestock and wildlife water availability. All pond restoration activities must be constructed to NRCS standards and specifications. Take coverage for California tiger salamander will be provided for pond restoration activities that are covered under the Program. Pond Restoration activities may include one or more of the following management practices:

1. Control predator species

Drain ponds to remove predators such as bullfrogs and non-native fish species such as bass, catfish, sunfish, and mosquito fish. Predation and competition from non-native fishes and amphibians are considered important factors in the decline of California tiger salamander (McCamman, 2010, Bobzien and Didonanto, 2007). A predator control and dewatering plan will be developed for pond restoration activities that involve predator control. This management practice incorporates the following design features and avoidance and minimization measures to limit impacts to Covered Species.

- a. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
- b. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.
- c. Restoration activities at ponds shall take place between August 31 and October 31 (or the first rainfall of the season depositing more than 0.25 inch) when larval development of California tiger salamanders and other amphibians is likely to be complete and ponds have less water present. California tiger salamanders use ponds to breed and lay eggs primarily following rains in November to February (CDFG, 1997). Metamorphosis usually occurs from May to July, with a peak in June (Trenham et al. 2000). Applying temporal limitations to when pond activities are occurring provides the best avoidance measure to limit impacts on in-pond and surrounding upland populations.
- d. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a Covered Species is present in the structure, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.

2. Establish native vegetation

Plant native vegetation around ponds and control non-native invasive plant species. Control and management of noxious weeds with the use of herbicides shall occur according to labeled directions and local, state, and federal regulations and guidelines. This management practice incorporates the following design features and avoidance and minimization measures to limit impacts to Covered Species.

- a. Rodent burrows shall be avoided to the maximum extent practicable when constructing beneficial activities that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. California tiger salamanders have been found up to approximately 6,500 feet from any known breeding pond, although California tiger salamander adults remain more concentrated within approximately 650 feet of the pond. Trenham and Shaffer (2005) estimate that in optimal habitat 95 percent of California tiger salamanders remain within 2,100 feet of breeding ponds. Alameda whipsnake use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known Covered Species occurrences, will prevent impacts to burrows that could contain Covered Species.
 - b. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
 - c. All steep-walled holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Holes shall be checked every morning prior to construction activity. If a Covered Species is present in the hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
 - d. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.
 - e. No plastic or monofilament erosion control material shall be used near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for Covered Species. Amphibians, birds, reptiles and other species can become trapped in plastic material.
 - f. Restoration activities at ponds shall take place between August 31 and October 31 (or the first rainfall of the season depositing more than 0.25 inch) when larval development of California tiger salamanders and other amphibians is likely to be complete and ponds have less water present. California tiger salamanders use ponds to breed and lay eggs primarily following rains in November to February (CDFG, 1997). Metamorphosis usually occurs from May to July, with a peak in June (Trenham et al. 2000). Applying temporal limitations to when pond activities are occurring provides the best avoidance measure to limit impacts on in-pond and surrounding upland populations.
3. Structural components repair
 Improve and repair spillways, provide alternative pipe outlets for water flow, and repair embankments as deemed necessary. Practices must meet NRCS standards and specifications for pond repair and be approved by the project engineer in order to meet Federal standards. Management practices that involve structural components repair include spillway repair, installation of alternative pipe outlets and embankment repair.
- i) *Spillway repair*
 Design and repair of the emergency earthen spillways utilizing grade stabilization structures to address potential gully erosion associated with spillways. This activity can be used to improve the size of a spillway to adequately address the hydrology of the watershed and/or

repair a spillway that is actively eroding and contributing sediment downstream. This activity is especially important where the emergency spillway will also act as the primary spillway in pond restoration.

ii) *Alternative pipe outlets for water flow*

Installation of corrugated metal pipe to act as a primary or emergency spillway in pond restoration. The activity includes pipe sizing based on the hydrology of the watershed; required appurtenances, such as anti-seep collars and inlet and outlet structures; and installation requirements, such as fill materials, compaction, and depth of cover.

iii) *Embankment repair*

Includes repairs to embankments that are leaking or other embankment repairs as deemed necessary. All dam repairs will be analyzed using geologists, soil scientists and other experts as necessary to determine the efficacy of such improvements.

These management practices incorporate the following design features and avoidance and minimization measures to limit impacts to Covered Species.

- a. Rodent burrows shall be avoided to the maximum extent practicable when constructing beneficial activities that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. California tiger salamanders have been found up to approximately 6,500 feet from any known breeding pond, although California tiger salamander adults remain more concentrated within approximately 650 feet of the pond. Trenham and Shaffer (2005) estimate that in optimal habitat 95 percent of California tiger salamanders remain within 2,100 feet of breeding ponds. Alameda whipsnake use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known Covered Species occurrences, will prevent impacts to burrows that could contain Covered Species.
- b. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
- c. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a Covered Species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- d. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.
- e. No plastic or monofilament erosion control material shall be used near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for Covered Species. Amphibians, birds, reptiles and other species can become trapped in plastic material.
- f. Restoration activities at ponds shall take place between August 31 and October 31 (or the first rainfall of the season depositing more than 0.25 inch) when larval development of California

tiger salamanders and other amphibians is likely to be complete and ponds have less water present. California tiger salamanders use ponds to breed and lay eggs primarily following rains in November to February (CDFG, 1997). Metamorphosis usually occurs from May to July, with a peak in June (Trenham et al. 2000). Applying temporal limitations to when pond activities are occurring provides the best avoidance measure to limit impacts on in-pond and surrounding upland populations.

- g. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a Covered Species is present in the structure, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.

4. Obstruction removal

This activity relates to the removal of concrete rubble, rip-rap, rock, wood, old tires, refuse (such as household trash) and other debris from the pond area and spillway. ACRC staff and/or its consultant will evaluate removal of debris on a site-by-site basis. All removed material will be properly disposed of off-site at approved locations. This management practice incorporates the following design features and avoidance and minimization measures to limit impacts to Covered Species.

- a. Rodent burrows shall be avoided to the maximum extent practicable when constructing beneficial activities that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. California tiger salamanders have been found up to approximately 6,500 feet from any known breeding pond, although California tiger salamander adults remain more concentrated within approximately 650 feet of the pond. Trenham and Shaffer (2005) estimate that in optimal habitat 95 percent of California tiger salamanders remain within 2,100 feet of breeding ponds. Alameda whipsnake also use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known Covered Species occurrences, will prevent impacts to burrows that could contain Covered Species.
- b. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
- c. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a Covered Species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- d. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.
- e. No plastic or monofilament erosion control material shall be used near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for the Covered

Species. Amphibians, birds, reptiles and other species can become trapped in plastic material..

- f. Restoration activities at ponds shall take place between August 31 and October 31 (or the first rainfall of the season depositing more than 0.25 inch) when larval development of California tiger salamanders and other amphibians is likely to be complete and ponds have less water present. California tiger salamanders use ponds to breed and lay eggs primarily following rains in November to February (CDFG, 1997). Metamorphosis usually occurs from May to July, with a peak in June (Trenham et al. 2000). Applying temporal limitations to when pond activities are occurring provides the best avoidance measure to limit impacts on in-pond and surrounding upland populations.
- g. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a Covered Species is present in the structure, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- h. Any rock or rubble designated for removal shall be inspected for presence of Covered Species prior to moving. If Covered Species are found they should be relocated by a qualified biologist to a suitable location out of the construction area or be allowed to leave the area on their own.

5. Pond desiltation

This activity includes desiltation of existing ponds that are filled in with sediment to increase and improve available breeding habitat. Most of the livestock ponds throughout Alameda County were installed thirty to sixty years ago, and were designed with a twenty-year lifespan. Many are now approaching failure due to siltation, are drying up and no longer providing the critical breeding habitat the California tiger salamanders require. Desiltation of these livestock ponds shall not involve any increase in the original storage capacity of a pond and shall incorporate, to the best extent possible the following design features. These design features were developed in consultation with California tiger salamander expert Pete Trenham and were compiled as part of the NRCS and ACRCDD's Draft Pond Restoration Design and Plan (NRCS and ACRCDD, 2006).

- i. Ponds shall be sized to retain sufficient water for larval development during the entire rearing season (January, or whenever rains commence, through late July or early August in most years); ponds can be allowed to dry during the fall (typically mid-August through early December).¹
- ii. Ponds shall contain a shallow water area for larval and juvenile rearing. This shallow area (approximately 1 foot deep) should be unshaded and contain no or very short emergent plants. The shallow area shall be designed so that the water warms quickly in the winter sun but is of sufficient water depth to provide aquatic habitat throughout spring.

¹ Note that pond management that mimics the natural water cycle, where possible, will be the most beneficial for the California red-legged frog and the California tiger salamander (USFWS 2002).

- iii. Ponds also shall contain a deep-water escape area with portions deeper than approximately 3.5 feet². This deep-water area should contain a mosaic of open water and dense aquatic vegetation, or dense patches of shoreline vegetation adjacent to deep water.
- iv. When possible, the areal extent of the shallow and deep portions of the pond should be about equal.

In addition, pond desiltation will adhere to the following avoidance and minimization measures to limit impacts to Covered Species.

- a. Rodent burrows shall be avoided to the maximum extent practicable when constructing beneficial activities that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. California tiger salamanders have been found up to approximately 6,500 feet from any known breeding pond, although California tiger salamander adults remain more concentrated within approximately 650 feet of the pond. Trenham and Shaffer (2005) estimate that in optimal habitat 95 percent of California tiger salamanders remain within 2,100 feet of breeding ponds. Alameda whipsnake also use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known Covered Species occurrences, will prevent impacts to burrows that could contain Covered Species.
- b. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
- c. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a Covered Species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- d. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.
- e. No plastic or monofilament erosion control material shall be used near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for Covered Species. Amphibians, birds, reptiles and other species can become trapped in plastic material.
- f. Restoration activities at ponds shall take place between August 31 and October 31 (or the first rainfall of the season depositing more than 0.25 inch) when larval development of California tiger salamanders and other amphibians is likely to be complete and ponds have less water present. California tiger salamanders use ponds to breed and lay eggs primarily following rains in November to February (CDFG, 1997). Metamorphosis usually occurs from May to July, with a peak in June (Trenham et al. 2000). Applying temporal limitations to when pond

² Including an area deeper than approximately 3.5 feet provides an area where California red-legged frogs can escape predators, and including an area deeper than approximately 5 feet discourages uniformly thick growth of emergent plants that might shade the entire area (which would provide poor habitat for both California red-legged frogs and California tiger salamanders).

activities are occurring provides the best avoidance measure to limit impacts on in-pond and surrounding upland populations.

- g. Sediment removal during pond maintenance/restoration shall be placed where it shall not pass into California tiger salamander breeding pools; nor shall it pass into any other waters of the state as per Fish and Game Code section 5650. Sediment shall not be placed over areas with ground squirrel burrows.
- h. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a Covered Species is present in the structure, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.

Stream Restoration

The activities covered under the Stream Restoration set of management practices includes activities that are associated with the repair, maintenance and restoration of suitable aquatic and riparian corridor habitat for the Covered Species. These activities are designed to provide erosion control measures, reduce sedimentation, improve water quality and restore and improve the overall quality of riparian habitat.

Many stream courses throughout Alameda County have been severely modified by urban development, increased and modified runoff, flood control management activities, and infrastructure encroachment. In addition, many streams continue to be degraded due to illegal dumping, filling, encroachment (structures), and unsuitable stream stabilization practices. Sometimes these activities are done without an understanding of the effects on the natural resources. The result is an unhealthy stream system and a downward spiral of continued degradation.

Stream restoration activities have the potential to benefit habitat for many local wildlife species. While not the primary habitat for the Covered Species under this Program, these species can benefit from restoration efforts in riparian areas. Riparian habitat is one of the vegetation types adjacent to the scrub habitat that the Alameda whipsnake needs for foraging, dispersal, and population interactions (*e.g.*, stream corridors) (USFWS, 2006). California tiger salamanders are also uncommonly found in stream courses in valley-foothill riparian habitats (CDFG, 2005). Stream restoration can benefit the Alameda whipsnake and California tiger salamander by providing adequate cover for them in these corridors, especially along stream courses where adequate upland habitat exists for each species.

Take coverage for the California tiger salamander and/or the Alameda whipsnake will be provided for stream restoration activities that are covered under the Program. Which species are covered under this activity will be detailed in the Cooperative Agreement and in consultation with the Program Administrator and the Department when enrolling in this Program.

Restoration activities in or near aquatic habitat shall conform to temporal limitations as well as sediment avoidance and other minimization measures as described below. Implementation of these practices may require temporary dewatering of the project site.

Stream restoration activities may include one or more of the following management practices.

1. Native Riparian Habitat Restoration

This activity relates to planting, maintenance and establishment of native vegetation along riparian corridors to enhance and improve habitat. The establishment of riparian buffers and

control of invasive plants reduces sediment, nutrient, and other contaminant loading to streams and water bodies and improves wildlife habitat. Non-native plants can out-compete and ultimately replace native plants resulting in a loss of native plant species diversity and wildlife habitat.

i. *Riparian Plantings*

Plantings applied on stable areas adjacent to water bodies and shall consist of native vegetative plantings ultimately resulting in forest canopy and understory development. This practice can be used to create shade to lower water temperatures, provide a source of detritus and large woody debris for fish and other aquatic organisms, and provide riparian habitat and corridors for wildlife.

ii. *Invasive and Non-native Plant Removal*

Restoration and conservation of rare or declining native vegetation communities and associated wildlife species along riparian corridors in Alameda County. This practice may be used to remove invasive plant species in riparian areas, including but not limited to Giant Cane (*Arundo donax*), Himalayan blackberry (*Rubus armeniacus*), English ivy (*Hedera helix*) and other non-native, invasive plant species. Any necessary use of herbicides shall occur according to labeled directions and local, State, and Federal regulations and guidelines.

This management practice incorporates the following avoidance and minimization measures listed below to limit impacts to Covered Species.

- a. Rodent burrows shall be avoided to the maximum extent practicable when constructing conservation practices that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. Alameda whipsnake also use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known occurrences of the Covered Species, will prevent impacts to burrows that could contain Covered Species.
- b. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
- c. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a Covered Species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- d. Native tree removal and disturbance of native shrubs or woody perennials adjacent to the streambank or stream channel shall be avoided or minimized to the fullest extent possible. If riparian vegetation will be disturbed, it shall be replaced with similar species.
- e. No plastic or monofilament erosion control material shall be used near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for the Covered Species. Amphibians, birds, reptiles and other species can become trapped in plastic material.

- f. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a Covered Species is present in the structure, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- g. Staging and storage areas for equipment, materials, fuels, lubricants and solvents, shall be located outside of the stream channels and avoiding areas of concentrated ground squirrel burrows suitable for use by Covered Species. Stationary equipment such as motors, pumps, generators, compressors and welders, located within or adjacent to the stream or pond shall be positioned over drip pans. Any equipment or vehicles driven and/or operated within or adjacent to the stream must be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. Vehicles must be moved away from the stream prior to refueling and lubrication.
- h. For any dewatering activities, water will be diverted by installation of a temporary barrier. All water above the barrier will be diverted downstream at an appropriate rate to maintain downstream flows during construction. A qualified biologist, with all necessary State permits shall relocate Covered Species and other native aquatic species within the project site. All reasonable efforts shall be made to capture and move all stranded aquatic life observed in the dewatered areas. Adequate water depth and channel width will be maintained at all times to allow for fish passage. When construction is completed, the barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance possible to the substrate.

2. In-Stream Channel Stabilization

This activity consists of the use of in-stream structures to provide channel and grade stabilization to reduce erosion and encourage vegetation establishment to reduce sediment loading to streams, improve water quality and improve wildlife habitat. Practices must meet NRCS standards and specifications for stream stabilization practices and be approved by a certified engineer and qualified geomorphologist in order to meet Federal standards. Management practices that involve in-stream stabilization include installation of in-stream stabilization structures and obstruction removal.

i) *Installation of In-Stream Stabilization Structures*

Installation of suitable structures to stabilize stream channels and will be used for streams that are undergoing damaging aggradation (filling in of) or degradation that cannot be controlled by upstream practices. This activity could include installation of rock, concrete or timber structures that do not control the rate of flow or water level in channels. This activity may also include the removal of accumulated sand or sediment.

ii) *Obstruction Removal*

This activity includes the removal and disposal of unwanted structures from streams. This practice includes removal of cars, large appliances, and garbage (items that are anthropogenic and not natural to the system). Large objects will be removed unless their removal will result in a (net) detrimental effect. For example, if it was discovered that multiple cars were stacked behind one another under a stream bank the cars will not be removed if the action will result in disturbance to a significant area (beyond the scope of this program). Obstructions shall be removed when the stream channel is dry or during the lowest flows to minimize impacts.

These management practices incorporate the following design features and avoidance and minimization measures to limit impacts to Covered Species.

- a. Rodent burrows shall be avoided to the maximum extent practicable when constructing conservation practices that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. Alameda whipsnake also use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known occurrences of the Covered Species, will prevent impacts to burrows that could contain Covered Species.
- b. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
- c. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a Covered Species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- d. Native tree removal and disturbance of native shrubs or woody perennials adjacent to the streambank or stream channel shall be avoided or minimized to the fullest extent possible. If riparian vegetation will be disturbed, it shall be replaced with similar species.
- e. No plastic or monofilament erosion control matting shall be used near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for the Covered Species. Amphibians, birds, reptiles and other species can become trapped in plastic material.
- f. The general construction season for stream restoration shall be from June 15 to October 31 (or the first rainfall depositing more than 0.25 inch) to avoid impacts to breeding, feeding and sheltering of Covered Species found within the riparian corridor.
- g. Excavation and grading activities shall only be conducted during dry weather.
- h. The use or storage of petroleum-powered equipment shall be accomplished in a manner to prevent the release of petroleum materials into waters of the state in accordance with Fish and Game Code section 5650.
- i. If construction shall occur in a riparian area before August 1, a survey must be conducted for nesting bird activity. If nesting birds are found within the area, staff must consult with the Department to determine appropriate avoidance measures.
- j. Sediment removal during stream restoration shall be placed where it shall not pass into any waters of the state as per Fish and Game Code section 5650. Sediment shall not be placed over areas with concentrated ground squirrel burrows.
- k. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a Covered Species is present in the structure, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.

- l. Staging and storage areas for equipment, materials, fuels, lubricants and solvents, shall be located outside of the stream channels and avoiding areas of concentrated ground squirrel burrows suitable for use by Covered Species. Stationary equipment such as motors, pumps, generators, compressors and welders, located within or adjacent to the stream or pond shall be positioned over drip pans. Any equipment or vehicles driven and/or operated within or adjacent to the stream must be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. Vehicles must be moved away from the stream prior to refueling and lubrication.
- m. For any dewatering activities, water will be diverted by installation of a temporary barrier. All water above the barrier will be diverted downstream at an appropriate rate to maintain downstream flows during construction. A qualified biologist, with all necessary State permits shall relocate fish, amphibians and other native aquatic species within the project site. All reasonable efforts shall be made to capture and move all stranded aquatic life observed in the dewatered areas. Adequate water depth and channel width will be maintained at all times to allow for fish passage. When construction is completed, the barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance possible to the substrate.

Livestock and Wildlife Water Distribution

The activities covered under the Livestock and Wildlife Water Distribution set of management practices includes activities that provide benefits to habitat and state listed species by improving livestock distribution through spring development and other off stream water developments. These off stream water developments may help reduce pressure on riparian habitats and other aquatic features by decreasing the amount of time livestock spend in streams, enhancing water quality and reducing sedimentation from streambank erosion. Proper placement of off stream developments contributes to proper forage use by livestock which decrease erosion and presence of invasive plants, resulting in improvements to the surrounding upland habitat. In addition to providing additional livestock water to support ongoing grazing management, these facilities also provide clean and readily available water for wildlife such as bats, birds, deer and other mammals. All troughs installed are required to incorporate adequate safe access and escape opportunities such as ramps for small wildlife.

Improved water distribution on rangelands facilitates better management by improving the distribution of water and allows for the limitation of livestock from streams, ponds, and lakes to improve habitat in these areas. Sustainable grazing management is essential to supporting healthy populations of California tiger salamanders, Alameda whipsnakes and other species throughout Alameda County. Both the USFWS and the Department recognize the importance of maintaining sustainable grazing operations to the survival of the California tiger salamander (USFWS, 2004, McCamman, 2010). Maintenance of shorter vegetation improves the ability of California tiger salamanders to move between aquatic and upland habitats and may also make areas more suitable for California ground squirrels whose burrows are essential to California tiger salamanders (USFWS, 2004). One of the factors contributing to the decline of the Alameda whipsnake is the alteration of suitable habitat as a result of fire suppression and the increased likelihood of catastrophic wildfires. Managed grazing can be used as a form of vegetation management to reduce fuel loads and reduce the potential of catastrophic wildfires (Bush, 2006). Developing off-stream water sources on rangelands allows for cattle to be properly managed and distributed. The USFWS believes that livestock grazing, if appropriately managed, can benefit the Alameda whipsnake (USFWS, 1997).

Take coverage for the California tiger salamander and/or the Alameda whipsnake will be provided for water development activities that are covered under the Program. Which species are covered under this activity will be detailed in the Cooperative Agreement and in consultation with the Program Administrator and the Department when enrolling in this Program.

Livestock and Wildlife Water Distribution activities may include one or more of the following management practices

1. Spring Development

The spring development management practice consists of capping or collecting water at a spring or seep and transporting it through pipelines to tanks or troughs to provide alternative livestock watering facilities. Development will be confined to springs or seep areas that could furnish a dependable supply of water. Water flow from the spring or seep may be temporarily reduced during the construction period. The Program Administrator and/or their contractor shall evaluate selection of spring developments and consider the potential impacts on long-term groundwater supply, effects on stream flows in the watershed, and maintaining adequate flow so that the spring development enhances the habitat values of the spring or seep area. This management practice incorporates the following avoidance and minimization measures to limit impacts to Covered Species.

- a. The area around the water source may be fenced to limit livestock access. Fencing shall be wildlife friendly to retain access by smaller species.
- b. All troughs associated with the development shall have float valves installed and will be used to control water flow. All troughs shall have escape ramps for wildlife.
- c. Sufficient spring flow shall remain in the wetland area to maintain the functions and values of the original wetland area. Water collected from the spring will not be held for more than 30 days. Overflow from the development will be directed back into the wetland area.
- d. Native plant species shall be used for revegetation, if necessary, within the disturbed area.
- e. Spring development and enhancement shall be constructed in accordance with NRCS Conservation Practice Standards and Specifications for spring development, wetland restoration and associated practices.
- f. Rodent burrows shall be avoided to the maximum extent practicable when installing practices that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. Alameda whipsnake also use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known occurrences of the Covered Species, will prevent impacts to burrows that could contain Covered Species..
- g. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
- h. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a Covered Species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.

- i. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.
- j. No plastic mono-filament erosion control matting shall be used for erosion control near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for California tiger salamanders. Amphibians, birds, reptiles and other species can become trapped in plastic matting.
- k. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a Covered Species is present in the structure, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- l. All rock outcroppings shall be avoided to minimize effects on Alameda whipsnake.
- m. Disturbance in known or potential Alameda whipsnake habitat shall take place between June 15 and October 31, when the Alameda whipsnake is more active, to promote movement when disturbance may occur.

2. Off-stream Water Facilities

This practice can be associated with spring developments, wells, or other off-stream water sources. Installation of watering facilities including tanks and/or troughs provides adequate amounts and quality of drinking water for livestock and wildlife and improves animal distribution to support effective rangeland management. This practice must incorporate adequate safe access and escape opportunities such as ramps in the watering facility design. This management practice includes pipeline installation.

i) *Pipeline Installation*

This practice is used in conjunction with other livestock and wildlife water improvement practices. It includes the installation of pipelines for conveying water from springs or ponds to alternative locations. Occasionally, pipelines may cross streams or other watercourses. Pipeline installation will be used to shift livestock to constructed water sources and away from streams and lake to reduce bank erosion, sediment yield, and manure deposition in watercourses.

This management practice incorporates the following avoidance and minimization measures to limit impacts to Covered Species.

- a. Rodent burrows shall be avoided to the maximum extent practicable when installing practices that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. Alameda whipsnake also use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known occurrences of the Covered Species, will prevent impacts to burrows that could contain Covered Species.
- b. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).

- c. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a Covered Species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- d. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.
- e. No plastic or monofilament erosion control material shall be used near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for California tiger salamanders. Amphibians, birds, reptiles and other species can become trapped in plastic material.
- f. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a Covered Species is present in the structure, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- g. All rock outcroppings shall be avoided to minimize effects on Alameda whipsnake.
- h. Disturbance in known or potential Alameda whipsnake habitat shall take place between June 15 and October 31, when the Alameda whipsnake is more active, to promote movement when disturbance may occur.

Erosion Control

The activities covered under this set of management practices includes activities that provide benefits to habitat and state listed species by reducing damage from sediment and runoff to watercourses. Installation of erosion control practices improves water quality by reducing non-point source pollution and improving habitat for aquatic species.

Take coverage for the California tiger salamander and/or the Alameda whipsnake will be provided for erosion control activities that are covered under the Program. Which species are covered under this activity will be detailed in the Cooperative Agreement and in consultation with the Program Administrator and the Department when enrolling in this Program.

Erosion control activities may include one or more of the following management practices

1. Access Road Improvements

This activity is limited to the improvement of an existing road to prevent erosion and maintain or improve water quality. An example of this practice might include re-grading, outsloping, or the addition of a rolling dip to a road so that water is less erosive as it travels across the road. This practice may also be used for repair, removal, or installation of culverts (water control structures) in non-fish bearing streams associated with access road improvements. In some cases this practice may also be used to decommission improperly placed roads (i.e. road that impacts habitat such as a seep area or a road that is too steep and contributing significant erosion) and re-route a new road to a more appropriate path. Roads contribute significant erosion to watercourses and degradation

of upland and aquatic habitat values through improper placement, undersized or oversized culverts, and improper or lack of appropriate maintenance. This management practice incorporates the following avoidance and minimization measures to limit impacts to Covered Species.

- a. Rodent burrows shall be avoided to the maximum extent practicable when installing practices that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. Alameda whipsnake also use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known occurrences of the Covered Species, will prevent impacts to burrows that could contain Covered Species..
- b. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
- c. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a Covered Species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- d. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.
- e. No plastic or monofilament erosion control material shall be used near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for Covered Species. Amphibians, birds, reptiles and other species can become trapped in plastic material.
- f. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a Covered Species is present in the structure, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- g. All rock outcroppings shall be avoided to minimize effects on Alameda whipsnake.
- h. Disturbance in known or potential Alameda whipsnake habitat shall only take place between June 15 and October 31, when the Alameda whipsnake is more active and less likely to be impacted.

2. Vegetation Establishment

This activity relates to planting, maintenance and establishment of native or non-persistent, noninvasive vegetation to reduce erosion and non-point source pollution to waterways, while also enhancing habitat. This management practice includes critical area planting, installation of filter strips and grassed waterways.

i) *Critical Area Planting*

Planting of tress, shrubs, grasses or legumes on highly erosive or critically eroding areas.

The resulting vegetation cover will be expected to reduce the amount of soil nutrients washed into surface waters or leached into ground water. Pesticide use will be limited to the use of herbicides to control established stands of non-native species.

ii) *Filter Strips*

Filter strips or areas of vegetation shall be used at the lower edges of fields, pastures, or other areas adjacent to streams, ponds, and lakes to remove sediment, organic matter, and other pollutants from runoff and wastewater. Installation often requires soil manipulation to remove surface irregularities and to properly address water movement through the filter strip. Pesticides and nutrients may be removed from runoff flowing through the vegetated filter strip by infiltration, absorption, adsorption, decomposition, and volatilization thereby protecting water quality downstream.

iii) *Grassed Waterways*

Used to control runoff by shaping or grading natural or constructed channels and planting the area to grass. This practice may reduce erosion in areas of concentrated flow (e.g., gullies or pond spillways) and result in the reduction of sediment and substances delivered to receiving waters. Vegetation may act as a filter in removing some of the sediment delivered to the waterway, although this is not the primary function of a grassed waterway.

These management practices incorporate the following design features and avoidance and minimization measures to limit impacts to Covered Species.

- a. Rodent burrows shall be avoided to the maximum extent practicable when installing practices that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. Alameda whipsnake also use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known occurrences of the Covered Species, will prevent impacts to burrows that could contain adult Covered Species.
- b. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
- c. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a Covered Species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- d. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.
- e. No plastic or monofilament erosion control material shall be used near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for Covered Species. Amphibians, birds, reptiles and other species can become trapped in plastic material.
- f. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any

way. If a Covered Species is present in the structure, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.

- g. All rock outcroppings shall be avoided to minimize effects on Alameda whipsnake.
- h. Disturbance in known or potential Alameda whipsnake habitat shall only take place between June 15 and October 31, when the Alameda whipsnake is more active and less likely to be impacted.

3. Water Control Structures

Installation of a structure in a drainage, stream, or gully, that conveys water, controls the direction or rate of flow, or maintains a desired water surface elevation, such as culverts, pipe drops or chutes within gullies, debris screens, etc. These structures are used to replace or retrofit existing culverts that are either not functioning properly or are a barrier to fish passage. The placement of new culverts, when environmentally beneficial, is also included in this practice. By controlling the velocity of water running through an area, this practice reduces erosion and prevents down cutting of stream channels. Installation of culverts shall be consistent with the Department's "Culvert Criteria for Fish Passage" (April 2003) and will incorporate the following avoidance and minimization measures to limit impacts to Covered Species.

- a. Rodent burrows shall be avoided to the maximum extent practicable when installing practices that involve surface disturbance. Outside of the breeding season, California tiger salamanders live exclusively on land, primarily in the burrows of ground squirrels and gophers. Alameda whipsnake also use small rodent burrows for areas of retreat (EPA, 2010). Avoidance of burrows within the project area, especially with known occurrences of the Covered Species, will prevent impacts to burrows that could contain Covered Species.
- b. Construction activities shall be conducted during daylight hours, to the maximum extent practicable. Movement and dispersal of California tiger salamanders occurs mostly at night (CDFG, 1997).
- c. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a Covered Species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.
- d. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.
- e. No plastic or monofilament erosion control material shall be used near riparian habitat, along the perimeter of ponds, or near other aquatic habitat that may provide habitat for Covered species. Amphibians, birds, reptiles and other species can become trapped in plastic material.
- f. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a Covered Species is present in the structure, a qualified biologist shall be notified

immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.

- g. All rock outcroppings shall be avoided to minimize effects on Alameda whipsnake.
- h. Disturbance in known or potential Alameda whipsnake habitat shall only take place between June 15 and October 31, when the Alameda whipsnake is more active and less likely to be impacted.

5. ROUTINE AND ONGOING AGRICULTURAL ACTIVITIES

The following is a list of routine and ongoing activities associated with ranching and agriculture that are afforded take coverage under the Program. This list of routine activities is not exhaustive and serves merely to provide guidance to Cooperators as to the type of activities that are anticipated to be covered under the Program. Activities that are not listed below will be reviewed by the Program Administrator and the Department to determine if the activities are appropriate for coverage under the Program. For the purposes of this Program the conversion of rangeland to more intensive agricultural uses, such as permanent crops, is not considered a routine and ongoing agricultural activity. Ordinary pasture maintenance and renovation and dry land farming operations consistent with rangeland management are considered routine and ongoing agricultural activities. Routine activities may vary from one ranching operation to another, and vary with changing environmental and economic conditions.

Routine and ongoing agricultural activities that a Cooperator will receive take authorization for under their participation in the Program will be listed in the Cooperative Agreement. The ACRC and the Department recognize that these are routine and ongoing agricultural activities that cannot be monitored as part of the Program. Cooperators will provide self-certification that they will implement the routine and ongoing agricultural activities as they are described below to prevent impacts to Covered Species as part of the authorization of the Cooperative Agreement.

1. Livestock grazing according to normally acceptable and established levels of intensity for the various plant communities in terms of the number of head of livestock per acre of rangeland.
2. Routine maintenance or construction of fences for grazing management. Rodent burrows will be avoided to the maximum extent practicable when constructing fencing that involves surface disturbance. Impacts to native and existing vegetation will be avoided to the maximum extent possible.
3. Maintenance and construction of livestock management facilities such as corrals, sheds, and other ranch outbuildings outside of the rainy season. Rodent burrows will be avoided to the maximum extent practicable when constructing and/or maintaining facilities that involves surface disturbance. Impacts to native and existing vegetation will be avoided to the maximum extent possible.
4. Repair, maintenance, or de-commissioning of unimproved ranch roads. This activity may include improvement, upgrade, or construction of new roads if approved by the Department. Activities shall be limited to the dry period of the year and shall be restricted to periods of low rainfall (less than 0.25 inch per 24 hour period), time periods with less than a 30 percent chance of rain, or dry weather periods. If rain is predicted based on the above criteria, within 72 hours during project activity, all activities shall cease until no further rain is forecast. Rodent burrows will be avoided to the maximum extent practicable when conducting road maintenance that involves surface disturbance. Impacts to native and existing vegetation will be avoided to the maximum extent possible. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way.
5. Control of ground-burrowing rodents using alternative management tools such as raptor perches, barn owl boxes and/or trapping methods will be encouraged as part of this Program. Use of poisonous grain using broad control methods is not the preferred method of control. Use of this method will be limited to population explosions in targeted areas to prevent negative impacts that can be associated with uncontrolled population growth (i.e. burrows compromising the integrity of

a dam, significant forage loss etc.). Use of poisonous grain will occur according to the labeled directions and local, State, and Federal regulations and guidelines. In areas where Covered Species exist, the use of toxic or suffocating gases is prohibited due to their non-target-specific mode of action.

6. Perimeter discing or blading for fire prevention control and other fire prevention activities. Activities shall be limited to the dry period of the year and shall be restricted to periods of low rainfall (less than 0.25 inch per 24-hour period), time periods with less than a 30 percent chance of rain, or dry weather periods. If rain is predicted based on the above criteria, within 72 hours during project activity, all activities shall cease until no further rain is forecast. Rodent burrows will be avoided to the maximum extent practicable when constructing discing activities.
7. Placement of mineral supplements and supplemental feeding.
8. Control and management of noxious weeds. Use of herbicides will occur according to labeled directions and local, State, and Federal regulations and guidelines. Activities shall be limited to the dry period of the year and shall be restricted to periods of low rainfall (less than 0.25 inch per 24-hour period), time periods with less than a 30 percent chance of rain, or dry weather periods. If rain is predicted based on the above criteria, within 72 hours during project activity, all activities shall cease until no further rain is forecast.
9. Riparian area maintenance (e.g., clearing debris not embedded in the stream channel). Rodent burrows will be avoided to the maximum extent practicable when conducting activities that involves surface disturbance. Impacts to native and existing vegetation will be avoided to the maximum extent possible. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way.
10. Movement of livestock.
11. Use of all-terrain and off-road vehicles in pasture for ranch management activities.
12. Use of horses and horse grazing according to normally accepted conditions.
13. Maintenance of existing off-stream livestock water developments including diversions and springs. Rodent burrows will be avoided to the maximum extent practicable when conducting activities that involve surface disturbance. Impacts to native and existing vegetation will be avoided to the maximum extent possible. All steep-walled trenches and/or holes deeper than 6-inches will be covered at night or an escape ramp will be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way.

6. ENVIRONMENTAL SETTING

The VLP would cover the entire county but primarily serves persons conducting routine and on-going ranching and agriculture in the eastern, rural portion of Alameda County and within properties adjoining or encompassing creeks in rural-urban interface areas (see Figure 1 in Appendix A). Alameda County encompasses an area of 469,400 acres and is situated in the greater San Francisco East Bay region. The majority of the county's population lives in the highly urbanized area along the easternmost portion of San Francisco Bay. This western portion of Alameda County includes the cities of Alameda, Berkeley, Fremont, Hayward, Oakland and San Leandro. The more rural, eastern portion supports ranching, with an urban/suburban center located in the Tri-Valley region of Dublin, Livermore, and Pleasanton (see Figure 2 in Appendix A). The county is approximately 50% agricultural land and 50% urban lands.

Agricultural lands dominate the eastern portion of the county; most are within the Alameda Creek Watershed (see Figure 2 in Appendix A). Grazing on 200,000 acres of rangeland is the predominant agricultural land use followed by viticulture, which covers approximately 4,000 acres. Other significant land uses include field and vegetable crops and nursery products. Wind farms are situated in the vicinity of Altamont Pass mostly on privately owned rangelands near the eastern edge of Alameda County. These rangelands are currently grazed and play an important role in managing most of the wind farms for fuel loads and maintaining valuable grassland habitat.

The major watersheds in Alameda County are Alameda Creek, San Leandro Creek, and San Lorenzo Creek watersheds. Some smaller watersheds in Alameda County are Arroyo Viejo; East Creek Watershed; Estudillo Canal; Ettie Pump Station; Laguna Creek; Lion Creek; Mowry Slough; San Antonio Creek (or Oakland Estuary); Sausal Creek; Strawberry Creek; and Temescal Creek watersheds. These smaller watersheds are predominately located in urbanized areas.

Associated waterways and land uses for the three major watersheds within Alameda County are shown in Figure 1 in Appendix A. The majority of projects under the VLP would occur within these three watersheds.

The Program will cover approximately 200,000 acres of agricultural lands in Alameda County. It is estimated that over the life of the Program, approximately 50,000 acres of annual grassland, wetland, and riparian habitats will be maintained and enhanced as a result of the implementation of the management practices.

7. ENVIRONMENTAL CHECKLIST

- 1. Project title: Alameda County Voluntary Local Program
- 2. Lead agency name and address:
Alameda County Resource Conservation District, 3585 Greenville Road, #2 Livermore, CA 94550
- 3. Contact person and phone number: Leslie Koenig, (925) 371-0154, ext. 115
- 4. Project location: Various parcels, Alameda County
- 5. Project sponsor's name and address:
Alameda County Resource Conservation District and the Natural Resources Conservation Service; 3585 Greenville Road, Suite #2, Livermore, CA 94550
- 6. General plan designation: Numerous 7. Zoning: Numerous
- 8. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)
 - Natural Resources Conservation Service
 - California Department of Fish and Game
 - California Department of Food and Agriculture
 - Alameda County Agricultural Commissioner

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least two impacts that are "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning |
| <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities / Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

Determination

(To be completed by the Lead Agency) On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been

made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

- ❑ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ❑ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ❑ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name Paul Banke, President, Board of Directors

8. DISCUSSION OF ENVIRONMENTAL IMPACTS

I. AESTHETICS

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-------------------------------------|
| Would the project | | | | |
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Aesthetics:

Restoration and enhancement of natural communities on agricultural lands in the Program area would generally be considered an improvement in the existing viewshed, or would possibly be considered by some viewers to be a neutral change. Implementation of the proposed Program may involve removal of existing vegetation, which would temporarily degrade the existing visual character in the Program area. Short-term impacts that may occur during construction of restoration and conservation projects will be immediately mitigated by the planting of site appropriate native vegetation and grasses in disturbed areas. When completed, the restoration and conservation projects will result in long-term, improved area aesthetics through an increase in native vegetation and wildlife habitat, making a generally positive or neutral change in aesthetics.

Finding: No Impact

II. AGRICULTURE RESOURCES:

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|---|--|---|------------------|
|--|---|--|---|------------------|

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Agricultural Resources:

The Alameda County VLP is designed to provide an incentive for the voluntary enhancement of habitat values while maintaining economic vitality for agriculture. Some areas within the agricultural landscape will be modified to restore and enhance wildlife habitat values; however, all enrolled lands will remain in agricultural use. Implementation of the management practices will not adversely impact agricultural values and will not result in a substantial alteration in the present or planned land use of the area or a reduction in the acres devoted to agriculture. Any take arising from conversion to non-agricultural uses would not be authorized by the Program – thus providing a disincentive for conversion to non-agricultural uses. In addition, one purpose of the Program is to improve agricultural sustainability and operations in the watersheds through stabilization of eroding soils and control of sediment discharges from agricultural land to watercourses. Thus, the Program is likely to increase the sustainability of agriculture within the region. Wildlife habitat enhancement on existing agricultural lands does not conflict with existing zoning or Williamson Act contracts.

Finding: No Impact.

III. AIR QUALITY

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project: | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Air Quality:

The Program would include operation of tractors and well pumps for habitat enhancement and routine and ongoing ranching activities. The Program may also involve practices which generate relatively small short-term emissions from construction equipment in the form of increased dust, particulate matter and exhaust odors. These effects from each project are local in nature and end with the implementation of each project. The Program would enhance native habitats on lands that have been disturbed in the past by routine ranching activities. The proposed Program would not be expected to generate dust in greater quantities or concentrations than has occurred over past uses. The incentives offered by the program may encourage increased acreages and long term maintenance of native habitat and thereby reduce bare soils that contribute wind born particulate matter. Enrolled properties will comply with local air district rules and regulations for (as applicable): fugitive dust, agricultural burning regulations, and registration of all diesel-fueled stationary (can include portable) agricultural pumps with the local air district (new state regulation).

Moreover, most of the habitat enhancements will occur on private properties in sparsely-populated areas of the region. If odors are generated from time to time by application of herbicides or fertilizer, by decomposing plants, or from livestock management, such odors are not likely to be perceptible to anyone other than ranch workers directly involved in the project.

Finding: Less than significant impact with employment of control measures.

IV. BIOLOGICAL RESOURCES

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|-------------------------------------|-------------------------------------|
| Would the project | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Biological Resources:

The purpose of the Alameda County VLP is to encourage farmers and ranchers engaged in agricultural activities to establish locally designed programs to voluntarily enhance and maintain habitat for sensitive, candidate, threatened and endangered species. The selected management practices are intended to reduce erosion and sedimentation and enhance habitat values in Alameda County watersheds. Project implementation will contribute to the health of the natural resources and agricultural sustainability in Alameda County. Some management practices may result in temporary disturbance to sensitive plant communities such as riparian corridors and wetlands that support threatened and endangered species.

However, the practices are intended to result in increased habitat and improved habitat quality including enhanced habitat connectivity across the agricultural landscape. As a result of these proposed management practices, wildlife habitat values on private land would be increased, listed species protected, and water quality improved in Alameda County streams.

1. Natural Communities in Alameda County

A natural community is defined as an assemblage of plants and animals interacting with one another and the abiotic environment around them, and subject to primarily natural disturbance regimes. Natural communities are often labeled according to the dominant vegetative characteristics. For this Initial Study, natural communities within the Program area are described at a general level that relates to the rangelands that are the focus, and only include those communities that provide habitat for Covered Species.

The state's diverse natural communities provide a wide variety of habitat conditions for plants and animals. California has been recognized as one of global hotspots for diversity. Some of California's natural communities are particularly rich in wildlife species, supporting hundreds of species each. All the communities on rangelands in the Program area exhibit high biological diversity.

Descriptions of the natural communities and habitats found in Alameda County are taken from the Department's California Wildlife Habitat Relationship System (CWHR), *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, 1988) and *A Manual of California Vegetation* (Sawyer et al., 2008).

Annual Grassland

Annual Grassland habitats are open grasslands composed primarily of annual plant species. Structure in Annual Grassland depends largely on weather patterns and livestock grazing. The dominant plant species include bromes (*Bromus* spp.), California poppy (*Eschscholzia californica*), filaree (*Erodium* spp.), lupines (*Lupinus* spp.), mustard (*Brassica* spp.), wild oat (*Avena* spp.), owl's-clover (*Castilleja* spp.), ryegrasses (*Lolium* spp.), thistle (*Cirsium* spp.), and many others (Mayer and Laudenslayer, 1988). Many wildlife species use Annual Grasslands for foraging and dispersal, but some also rely on additional special habitat features such as cliffs, caves, ponds, or habitats with woody plants for breeding, resting, and escape cover.

Oak Woodlands

Oak woodlands are extremely variable and the overstory can consist of deciduous and evergreen hardwoods depending upon the type of oaks present and the location. Valley, Coastal and Blue oak woodlands harbor a rich diversity of native plant and wildlife species. Oak trees in woodland habitats provide important cover, nesting sites and production of acorns that allow many animal species to remain year-round (CalPIF 2002). The typical understory is composed of an extension of Annual Grassland vegetation and associated shrubs such as poison-oak (*Toxicodendron diversilobum*), blue elderberry (*Sambucus mexicana*), toyon (*Heteromeles arbutifolia*), California coffeeberry (*Rhamnus californica*) and California blackberry (*Rubus ursinus*) (Mayer and Laudenslayer, 1988). Mixed oak woodland habitats can be found throughout Alameda County and are especially dominant along the Mines Road area. Valley Oak Woodlands usually merge with Annual Grasslands and Valley-Foothill Riparian vegetation near major stream courses and are found in this association throughout the County.

Chaparral/Scrub

The Chaparral community is highly adapted to periodic fire. Post-fire recovery of chaparral begins with a cover of subshrubs, annuals, and perennial herbs. However, shrubs that will be dominant in mature chaparral are present as seedlings and root-crown sprouts. Wildlife management considerations usually focus on selecting alternative fire and vegetation management treatments to keep the chaparral in mixed age classes and reduce the risk of catastrophic wildfire.

The Coastal Scrub habitat structure varies considerably depending upon the site conditions and location (Mayer and Laudenslayer, 1988). The most common type of northern Coastal Scrub found in Alameda County usually occurs where coyotebush dominates the overstory. Other common overstory species are ceanothus, coffeeberry, bush monkeyflower, blackberry, poison-oak and wooly sunflower.

Chaparral and other associated scrub communities provide critical habitat associations for the Alameda whipsnake.

Cultivated Agriculture - Dryland Grain Farming, Orchards, Vineyards and Cropland

Vegetation in Dryland (nonirrigated) Grain and Seed Crops Habitat (Mayer and Laudenslayer, 1988) includes production of annual, seed producing annuals such as barley, oats and wheat. These are normally planted in fall and harvested in spring. Dryland grain and seed crops often occur in association with riparian habitats. The most common type of dryland farming in the County is farming of hay.

Orchards in Alameda County are typically grown in open single species tree dominated habitats. Depending on the tree type and pruning methods they are usually low, bushy trees with an open understory to facilitate harvest. The majority of orchards grown in the County are olives and walnuts with other speciality crops such as pistachios and pomegranates. The understory is usually composed of low growing grasses and other herbaceous plants, but may be managed to prevent understory growth totally or partially, such as along tree rows.

Similarly, vineyards are composed of single species planted in rows, usually supported on wood and wire trellises. Rows under the vines are managed to prevent growth of herbaceous plants. Between rows of vines, grasses and other herbaceous plants may be planted or allowed to grow as a cover crop to control erosion.

Cropland vegetation can include a variety of sizes, shapes, and growing patterns dependent upon the type of crops planted. Most croplands support annuals, planted in spring and harvested during summer or fall. The majority of cropland in Alameda County is limited to small farming operations that are producing fruits and vegetables for farmers and Community Supported Agriculture markets.

Many species of birds and mammals have adapted to the agriculture type habitats. Many have become “agricultural pests” which has resulted in intensive efforts to reduce crop losses through fencing, sound guns, or other management techniques. Wildlife such as deer and rabbits browse on the trees or vines; other wildlife such as squirrels and numerous birds feed on fruit or nuts. Some wildlife (e.g., mourning dove, California quail) are more passive in their use of the habitat for cover and nesting sites. Filter strips and hedgerows established on farm borders can provide valuable habitat for pollinators and other wildlife species.

Fresh Emergent Wetland

Fresh Emergent Wetlands occur on saturated or periodically flooded soils that support common cattail (*Typha angustifolia*), common tule (*Scirpus acutus*), bulrush (*Scirpus spp.*), sedges (*Carex spp.*), and rushes (*Juncus spp.*). The vegetation may vary in size from small clumps to vast areas covering several kilometers. Fresh Emergent Wetlands occur in association with aquatic habitats such as Riverine (Mayer and Laudenslayer, 1988). Fresh emergent wetlands are among the most productive wildlife habitats in California. They provide food, cover, and water for many species of birds, and numerous mammals, reptiles, and amphibians. Many species rely on Fresh Emergent Wetlands for their entire life cycle. This habitat is found in small areas throughout the entire County along stream and pond edges and along natural spring areas. California tiger salamander, California red-legged frog and Alameda whipsnake are a few of the species that benefit from and utilize wetland areas.

Valley Foothill Riparian

Valley Foothill Riparian habitats are associated with mostly winter deciduous trees in the canopy layer, a subcanopy tree layer and an understory shrub layer. Herbaceous vegetation constitutes about one percent of the cover. Dominant species in the canopy layer are Fremont cottonwood (*Populus fremontii*), California sycamore (*Platanus racemosa*), and valley oak (*Quercus lobata*). Subcanopy trees include white alder (*Alnus rhombifolia*) and boxelder (*Acer negundo*). Typical understory shrubs include California wild rose (*Rosa californica*), California blackberry (*Rubus ursinus*), blue elderberry (*Sambucus mexicana*), poison oak (*Toxicodendron diversilobum*), and willows (*Salix* spp.). The herbaceous layer consists of sedges (*Carex* spp.), rushes (*Juncus* spp.), grasses, miner's lettuce (*Claytonia perfoliata*), poison hemlock (*Conium maculatum*) and nettles (*Urtica* spp.) (Mayer and Laudenslayer, 1988). Valley-foothill riparian habitats provide food, water, migration and dispersal corridors, and escape, nesting, and thermal cover for an abundance of wildlife. Amphibians and reptiles occur in lowland riparian systems as both permanent residents or temporal visitors. Riparian habitats provide critical refuge for migratory and resident bird species throughout the many stream courses in Alameda County.

2. Environmental Effects

For the purposes of this Initial Study, biological resources include vegetation, wildlife, fish, and waters of the United States, including wetlands. This section includes a discussion of the effects of the Alameda County VLP on State-listed and sensitive species, streams and fisheries, and other biological resources. Some enhancement and restoration activities may result in temporary disturbance to plant communities such as riparian, wetlands, and grassland communities that support Covered Species and other wildlife. However, the enhancement and restoration are intended to result in increased habitat and improved habitat quality for Covered Species, including enhanced habitat connectivity across the ranching landscape. The benefits are expected to be maintained for an extended period of time and outweigh the temporary negative effects of the enhancement actions.

3. Effects on State-listed and Sensitive Species

Activities associated with management practices habitat enhancement and restoration and routine and ongoing agricultural activities all have the potential to impact State-listed and sensitive species. The Alameda County VLP contains management practices and avoidance and minimization measures that landowners may elect to implement on their property. Such measures meet the intent to enhance the amount and/or quality of habitat for the Covered Species and provide an overall enhancement of wildlife habitat for non-listed species as well. Maps of Covered Species and Non-listed Species occurrences within the county are included in Appendix A.

Covered Species:

This Program provides take authorization for the state listed Alameda whipsnake (*Masticophis lateralis euryxanthus*) and the California tiger salamander (*Ambystoma californiense*), both state listed as threatened, hereafter referred to as the "Covered Species".

Alameda Whipsnake (*Masticophis lateralis euryxanthus*) – Federal Threatened Species; State Threatened Species (USFWS, 2005)

The Alameda whipsnake occurs primarily in coastal scrub and chaparral communities, but also forages in grasslands and open woodlands and requires partially open, low-growing shrub communities. Stream channels and riparian habitats are probably used as movement corridors between these habitats. Rock outcrops with deep crevices or abundant rodent burrows are important habitat components for overnight and winter hibernation dens, refuges from predators and excessive heat, and foraging. Lizards, especially the western fence lizard (*Sceloporus occidentalis*), appear to be the most important prey item of whipsnakes, although other prey items are taken, including skinks, frogs, snakes, and birds.

Alameda whipsnake populations have declined from loss of habitat resulting from urban development, particularly road and highway construction, which has fragmented whipsnake populations and made them more vulnerable to extinction. Urban development adjacent to whipsnake habitat increases the likelihood of predation from feral cats and injury or death from public recreational use. Fire suppression alters suitable Alameda whipsnake habitat by increasing the chances of large catastrophic fires occurring in areas where vegetation has become overgrown. Overgrown vegetation also leads to a closed scrub canopy which tends to reduce the types of habitat that whipsnakes require.

California Tiger Salamander (*Ambystoma californiense*) – Federal Threatened Species; State Threatened Species (USFWS, 2007b)

The California tiger salamander spends most of its life in underground burrows, migrating to breeding ponds during the rainy season. Adult California tiger salamanders rely on small mammal burrows such as the California ground squirrel and soil cracks for underground retreats. Adults spend most of their lives in these underground burrows, migrating to breeding ponds during the rainy season. They require calm waters such as vernal pools or ponds for breeding and larval development. Historically, California tiger salamanders probably relied on vernal pools for breeding habitat but now make extensive use of ponds constructed for livestock. Ideal California tiger salamander aquatic habitat can be found with ponds that fill in in winter and dry out in the summer, with no fish, and an abundant prey source. Upland areas that consist of mainly grassland with abundant burrows that are connected to aquatic habitat such as vernal pools or ponds are a requirement for the survival of California tiger salamanders.

The California tiger salamanders primary causes for decline are due to habitat loss and introduction of exotic predators. Habitat loss includes the degradation of remaining vernal pools and fragmentation of adjacent upland habitat due to human encroachment and increased urbanization. Loss of burrows through rodent control programs lead to a deficiency of important underground habitats. Introduction of predatory fishes (including mosquito fish for mosquito control), bullfrogs, and/or Louisiana crayfish into pools used by the tiger salamander also present a great threat to their continued survival.

The Covered Species have significant habitat available and occur throughout the County. Both species have designated critical habitat areas within Alameda County. Alameda whipsnake critical habitat covers portions of Unit 2, 5a and 5b and all of Unit 3. California tiger salamander critical habitat covers most of Unit 3 and all of Units 1, 2 and 4.

Non-covered Special Status Species:

Non-covered special status wildlife and plant species that have the potential occur within the Program area are listed in Appendix A. Take is not authorized by the Department under this Program for listed species other than the Covered Species (California tiger salamander and Alameda whipsnake). Below is a list of avoidance and minimization measures that will be used to avoid impacts to non-covered species. The ACRC and the Department recognize that the implementation of Projects with associated management practices when successful will enhance and maintain wildlife habitat in Alameda County. Table 1 and 2 in Appendix A includes which mitigation measures are applicable for each special status wildlife and plant species within the Program Area.

Mitigation Measure 1: Construction Hours. Ground disturbing activities shall occur only during daylight hours.

Mitigation Measure 2: Minimization of Vegetation Disturbance. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation.

Mitigation Measure 3: No Plastic mono-filament matting. No plastic mono-filament erosion control matting shall be used for erosion control near riparian habitat, along the perimeter of ponds, or near other aquatic habitat.

Mitigation Measure 4: Avoiding Animal Burrows. All animal burrows will be avoided to the maximum extent feasible.

Mitigation Measure 5: Sediment Removal. Sediment removed during pond and/or stream restoration activities will not be placed where it can enter into waters of the state as per Fish and Game Code 5650. Sediment will not be placed over areas with concentrated ground squirrel burrows.

Mitigation Measure 6: Capping structures. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way.

Mitigation Measure 7: Escape Ramps. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a listed species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated.

Mitigation Measure 8: Native Trees/Shrubs. Native tree removal and disturbance of native shrubs or woody perennials adjacent to streambanks or stream channels shall be avoided or minimized to the fullest extent possible. If riparian vegetation will be disturbed, it shall be replaced with similar species.

Mitigation Measure 9: Cavity/Tree Nesting Bird Surveys. If construction activities in riparian and other wooded areas are scheduled during the nesting season of protected raptors and migratory birds (February 15 to August 30) a survey must be conducted for nesting bird activity. If nesting birds are found within the area, a 50 foot buffer from passerines and 300 foot buffer from raptors will be implemented unless another buffer is authorized by the Department.

Mitigation Measure 10: Ground Nesting Bird Surveys. If ground disturbance activities occur are scheduled during the nesting season of protected raptors and migratory birds (February 15 to August 30) a survey must be conducted for ground nesting bird activity. If nesting birds are found within the area, a 50 foot buffer from passerines and 300 foot buffer from raptors will be implemented unless another buffer is authorized by the Department.

Mitigation Measure 11: Bat Surveys. If trimming or removal of trees is required within the project area, all trees subject to the impact will be surveyed for potential roost habitat (cavities, crevices) by a qualified biologist. If roosting bats are identified, tree/limb removal must occur during March 1 to April 15 or August 15 to October 15 unless otherwise authorized by the Department.

Mitigation Measure 12: In Stream Restoration Seasonal Limitations. The general construction season for stream restoration shall be from June 15th to October 31st (or the first rainfall depositing more than 0.25 inch) to avoid impacts to breeding, feeding and sheltering of species found within the riparian corridor.

Mitigation Measure 13: Equipment Staging and Storage. Staging and storage areas for equipment, materials, fuels, lubricants and solvents, shall be located outside of the stream channels and avoiding areas of concentrated ground squirrel burrows. Stationary equipment such as motors, pumps, generators, compressors and welders, located within or adjacent to streams or ponds shall be positioned over drip pans. Any equipment or vehicles driven and/or operated within or adjacent to streams must be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. Vehicles must be moved away from the stream prior to refueling and lubrication. The use or storage of petroleum-powered equipment shall be accomplished in a manner to prevent the release of petroleum materials into waters of the state in accordance with Fish and Game Code 5650.

Mitigation Measure 14: Dewatering Activities. For any dewatering activities, water will be diverted by installation of a temporary barrier. All water above the barrier will be diverted downstream at an appropriate rate to maintain downstream flows during construction. A qualified biologist, with all necessary State permits shall relocate fish, amphibians and other native aquatic species within the project site. All reasonable efforts shall be made to capture and move all stranded aquatic life observed in the dewatered areas. Adequate water depth and channel width will be maintained at all times to allow for fish passage. When construction is completed, the barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance possible to the substrate.

Mitigation Measure 15: Rock Outcroppings. All rock outcroppings will be avoided.

Mitigation Measure 16: Use of Herbicides. Use of herbicides will occur according to labeled directions and local, State, and Federal regulations and guidelines. Activities shall be limited to the dry period of the year and shall be restricted to periods of low rainfall (less than ¼" per 24 hour period), time periods with less than a 30% chance of rain, or dry weather periods. If rain is predicted based on the above criteria, within 72 hours during project activity, all activities shall cease until no further rain is forecast.

Mitigation Measure 17: Implement Avoidance and Minimization Measures for Potential Impacts to California red-legged frog and California tiger salamander and their habitats.

- a) Restoration activities at ponds occupied by red-legged frogs and/or tiger salamanders will take place between August 31-October 31 (or the first rainfall of the season depositing more than 0.25 inch) when larval development of red-legged frogs and tiger salamanders is likely to be complete and ponds have less water present, unless restoration activities do not impact pond vegetation or water.
- b) A qualified biologist shall survey the work site immediately prior to construction activities. If red-legged frogs and/or tiger salamander adults, larvae, or eggs are found, the qualified biologist will determine if moving any of these life-stages is appropriate. In making this determination the qualified biologist shall consider if an appropriate relocation site exists. The qualified biologist shall be allowed sufficient time to move red-legged frogs and/or tiger salamanders from the work site before work activities begin.
- c) Bare hands shall be used to capture red-legged frogs and/or tiger salamanders. Qualified biologists will not use soaps, oils, creams, lotions, repellents, or solvents of any sort on their hands within two hours before and during periods when they are capturing and relocating individuals. To avoid transferring disease or pathogens of handling of the amphibians, qualified biologists will follow the Declining Amphibian Populations Task Force's "Code of Practice."
- d) Only qualified biologists will capture, handle, and relocate red-legged frogs and tiger salamanders.

- e) A qualified biologist shall be present on site during all grading, dewatering, riparian or aquatic vegetation removal, in-stream construction activities, and relocation of red-legged frogs and/or tiger salamanders. After instruction of project personnel, relocation of red-legged frogs and/or tiger salamanders, and the activities listed above have been completed, the qualified biologist shall designate a person to monitor on-site compliance. The qualified biologist shall ensure that this individual receives the training specified in general protective measure 2 and is competent in the identification of red-legged frogs and/or tiger salamander.
- f) All burrows that provide upland habitat will be avoided to the maximum extent feasible. Areas with high concentrations of burrows will be flagged and avoided.
- g) Sediment removed during pond and/or stream restoration activities will not be placed where it can enter into red-legged frog and/or tiger salamander breeding pools; nor will it pass into any other waters of the state. Sediment will not be placed over areas with concentrated ground squirrel burrows.

Mitigation Measure 18: Implement Avoidance and Minimization Measures for Potential Impacts to Alameda whipsnake and its habitat.

- a) All rock outcroppings will be avoided.
- b) No plastic mono-filament erosion control matting will be used for erosion control in whipsnake habitat.
- c) Disturbance in known or potential Alameda whipsnake habitat shall only take place between June 15- October 31, when the whipsnake is more active and less likely to be impacted.

Mitigation Measure 19: Implement Avoidance and Minimization Measures for Potential Impacts to San Joaquin kit fox and its habitat.

- a) If a qualified biologist determines that there is potential for kit foxes or their dens to be present within the project area, the following avoidance measures will be conducted following measures and utilize the USFWS's Standardized Recommendations for Protection of the San Joaquin kit Fox Prior to or During Ground Disturbance, dated June 1999. Preconstruction surveys will be conducted using transect surveys such that 100% visual coverage of the Project Area is achieved.
- b) If a potential San Joaquin kit fox den is discovered or a fox is found in an "atypical" den such as a pipe or culvert, a 50-foot buffer shall be established around the den using flagging. If a known kit fox den (one that shows evidence of current use or is known to have been used in the past) is discovered, a buffer of at least 100 feet will be established around the den using fencing. If a natal den is discovered, a buffer of at least 200 feet will be established around the den using fencing. The Designated Representative shall immediately notify USFWS and the Department by telephone and e-mail if a known or natal kit fox den is discovered in or near the Project Area.

Mitigation Measure 20: Avoid Special-Status Plants. If special-status plants are present at the project area, the project will be re-designed to avoid any special-status plants.

Mitigation Measure 21: Implement Avoidance and Minimization Measures for Potential Impacts to Longhorn Fairy Shrimp and Vernal Pool Fairy Shrimp and their habitat. If vernal pools are present near the project area, a qualified biologist will stake and flag an exclusion zone prior to construction activities. The exclusion zone will encompass the maximum practicable distance from the worksite.

Mitigation Measure 22: Implement Avoidance and Minimization Measures for Potential Impacts to Callippe Silverspot Butterfly and its habitat. Preconstruction surveys for the larval food plants of callippe silverspot butterfly will be conducted during typical bloom season during a period from January through April. Any larval food plants found within 300 feet of the project footprint will be clearly marked with pin flagging. Flagged areas will be avoided to the maximum extent practicable and if possible, fenced for

avoidance. In addition, orange fencing will be placed along the edge of the work area near any larval food plants to prevent workers and vehicles from entering this area.

Mitigation Measure 23: Implement Avoidance and Minimization Measures for Potential Impacts to the San Francisco Dusky Footed Woodrat and its habitat. Preconstruction surveys will be conducted by a qualified biologist for projects that occur within woodrat habitat for the presence of middens. If middens are found within the breeding season (December 1 to August 31) exclusion fence will be installed to protect the middens from construction activities.

Mitigation Measure 24: Applicable Permits. When applicable, landowners must comply with all state, federal and local regulations including but not limited to: the applicable region of the California Regional Water Quality Control Board 401 Compliance, the US Army Corps of Engineers 404 Compliance, US Fish and Wildlife Service Endangered Species Act compliance and/or Alameda County Grading Permits. For practices that may substantially modify a river, stream, or lake a separate notification to the Department is required by landowners proposing projects in these areas and must be completed in accordance with Section 1600 of the California Fish and Game Code.

4. Effects from Management Practices

Take of Covered Species incidental to management practices may occur as a direct result of habitat manipulation for enhancement or restoration. Below is a discussion of the activities associated with implementation of the management practices.

- Grading for pond development or enhancement – Habitat conditions for Covered Species would be improved with pond restoration activities including de-sedimentation, spillway improvements and other activities such as obstruction removal. Structural improvements and grading activities may require draining the pond and the use of heavy machinery which may displace or crush Covered Species. Soil and existing vegetation would be disrupted. Covered Species may be displaced from the area due to the vegetation removal or disruption from noise and human activities. Water quality conditions in existing ponds during and immediately following mechanical disturbance may be temporarily impacted until sediments settle.
- Draining of stock ponds to control predator species – Ponds that have the presence of introduced species including fish and bullfrogs that predate on and compete with the Covered Species can be drained to control the non-native predators. Predator control may require draining the pond. Water quality conditions in existing ponds during and immediately following disturbance may be temporarily impacted.
- Vegetation clearing to maintain open water in stock ponds – Ponds used by Covered Species can become filled in by overgrown emergent vegetation. Vegetation clearing may be necessary to enhance open water habitat. Vegetation clearing may require draining the pond and the use of machinery which may displace or crush Covered Species. Water quality conditions in existing ponds during and immediately following mechanical disturbance may be temporarily impacted until sediments settle.
- Earthmoving activities to stabilize eroding banks of water bodies – These actions will reduce sediments in waterways thereby improving water quality for Covered Species and other wildlife. Streambank restoration activities including grading, installation of suitable structures and removal of accumulated sediment or obstructions, may require dewatering of a stream and the use of heavy machinery. These earthmoving activities, site preparation, and planting native vegetation would have the same general effects as described above for grading. These actions may require

landowners to notify the Department pursuant to Fish and Game Code Section 1600 et. seq. of their intent to alter a streambank.

- Ground disturbance to remove invasive plants – This activity would open up areas for native plant restoration. Removal actions may include mechanical ground disturbance with machinery, hand tools, livestock grazing, and/or application of herbicides. Any necessary use of herbicides shall occur according to labeled directions and local, State and Federal regulations and guidelines. Covered Species may be displaced from the area due to the vegetation removal or disruption from noise and human activities. Prescribed fires may help eliminate invasive plants and provide more suitable conditions for native vegetation, but may impact a Covered Species in the line of fire through intense heat or smoke.
- Site preparation for planting of native vegetation – This activity includes plant establishment in areas that are disturbed and/or have a lack of native vegetation, including areas around ponds, oak woodlands, wetlands, uplands and riparian areas. Site preparation may include shallow tillage to prepare the soil as well as the use of machinery or hand power tools such as augers to facilitate planting seedlings and saplings. Vehicles transporting equipment and supplies may drive across vegetated areas. Soil and existing vegetation would be disrupted. Covered Species may be displaced from the area due to the vegetation removal or disruption from noise and human activities.
- Site preparation for installation of vegetative runoff management activities – These management activities include planted areas of vegetation such as filter strips and/or grassed waterways that can slow down and/or reduce non-point source pollution contributions to waterways. Site preparation would include shallow tillage to prepare the soil and mechanical planting of seeds. Vehicles transporting equipment and supplies may drive across other vegetated areas. Soil and existing vegetation would be disrupted. Covered Species may be displaced from the area due to the vegetation removal or disruption from noise and human activities.
- Construction of livestock watering facilities – This would include installation of watering tanks and troughs and associated pipeline. These structural improvements may include ground disturbance and grading activities that may require the use of heavy machinery which may displace or crush Covered Species. Soil and existing vegetation would be disrupted. Covered Species may be displaced from the area due to the disturbance removal or disruption from noise and human activities. Construction of new barns, shops, and houses is not included in routine and ongoing ranching activities and therefore not covered by the VLP.
- Site preparation and fencing for spring developments – Developments of springs and/or seeps consists of capping or collecting water and transporting it through pipelines to tanks and troughs. These activities would include ground disturbance and grading activities that require the use of heavy machinery which may displace or crush Covered Species. Soil and existing vegetation would be disrupted. Covered Species may be displaced from the area due to the vegetation removal or disruption from noise and human activities. Water flow from the spring or seep may be temporarily reduced during the construction period. The area around the water source may be fenced to limit livestock access. Fences may be installed to exclude livestock from the sensitive areas (e.g., riparian or wetlands). Fence installation will result in very minor effects on Covered Species, but which would be similar to planting seedlings or saplings (augering etc.)
- Road repair, maintenance, relocation and/or de-commissioning – Road repair and maintenance activities would involve grading, but are unlikely to affect Covered Species as the primary area of

impact would be the existing road and the immediate shoulder of the road. De-commissioning could result in restoration of the roadway to habitat for the Covered Species. Road culvert repair or installation would have similar impacts to new road construction activities. New road construction would not be covered by the VLP except for instances where it is desirable to relocate a road out of a sensitive habitat area. Grading would be carried out by heavy machinery. Soil and existing vegetation would be disrupted. Covered Species may be displaced from the area due to the vegetation removal or disruption from noise and human activities. Road culvert repair or installation would have similar impacts to new road construction activities.

- Water control structures – This activity includes installation of structures in a drainage, stream or gully that control the flow of water that are not functioning properly or present a fish barrier. These actions will reduce sediments in waterways thereby improving water quality for Covered Species and other wildlife. Installation of culverts, pipe drops or chutes within gullies or streams may including grading, removal of accumulated sediment or obstructions, may require dewatering of a stream and the use of heavy machinery. These earthmoving activities, site preparation, and planting native vegetation would have the same general effects as described above for grading. These actions may require landowners to notify the Department pursuant to Fish and Game Code Section 1600 et. seq. of their intent to alter a streambank. Installation of culverts shall be consistent with California Department of Fish and Game’s “Culvert Criteria for Fish Passage” (April 2003).

For each of the Covered Species addressed by the VLP, a list of take avoidance and minimization measures has been incorporated into the management practices to reduce incidental take that may result from enhancement and restoration actions (see Section 3: Management Practices). With the implementation of take avoidance and minimization measures, the incidental take associated with enhancement and restoration activities is expected to be negligible. This is because the habitat enhancement would not be necessary if the site were already providing good quality habitat occupied by these species and did not require any restoration or enhancement. During the process conducted for each enrolling property, suitable habitat will be identified for Covered Species and where take avoidance and minimization measures will apply.

5. Effects from Routine and Ongoing Agricultural Activities

Take of Covered Species will also be authorized in association with routing and ongoing agricultural activities. Potential impacts that are not described above in the management practices include:

- Collisions with farm vehicles – In the course of normal travels around the ranch, Covered Species may be accidentally struck by vehicles.
- Trampling by livestock – Livestock graze and rest in the same habitats where the Covered Species occur. Livestock may step or lay on individual plants and animals.
- Control ground-burrowing rodents – Rodent burrows can be a hazard for livestock potentially causing serious injuries. Rodent burrows may be collapsed by grading or discing. Rodent burrows will be avoided to the maximum extent practicable when constructing conservation practices that involve surface disturbance. Avoidance of burrows within the project area, especially where Covered Species are known to occur, will prevent impacts to burrows that could contain Covered Species. Use of poisonous grain will occur according to the labeled directions and local, State, and Federal regulations and guidelines. The VLP prohibits collapsing, grading or discing burrows and the use of toxic or suffocating gases where Covered Species are known to exist.

- Disturbance from maintenance and/or construction of fencing – Managing livestock grazing will be an important tool for enhancing the suitability of the habitat for Covered Species. Fences may be installed to exclude livestock from sensitive areas (e.g., riparian or wetlands), or to establish pastures that provide more management control to the land manager. Fence installation will result in very minor effects on Covered Species, but which would be similar to planting seedlings or saplings (augering, driving along fence lines to deliver materials, etc.).
- Disturbance from maintenance and construction of livestock management facilities – This would include corrals, small sheds and outbuildings. These types of structures are likely to be located near ranch management compounds where little to no habitat for Covered Species exists. Nonetheless, impacts to Covered Species may result from grading the site with heavy machinery. Soil and existing vegetation would be disrupted. Covered Species may be displaced from the area due to the vegetation removal or disruption from noise and human activities. Construction of new barns, shops, and houses is not included in routine and ongoing ranching activities and therefore not covered by the VLP.
- Disturbance from development and maintenance of fire breaks – Most ranches maintain fire breaks as a fire prevention tool, and they are disced for maintenance approximately once per year. Site preparation would include shallow tillage to create the fire break. Soil and existing vegetation would be disrupted. Covered Species may be displaced from the area due to the vegetation removal or disruption from noise and human activities.
- Disturbance from prescribed fires to burn old, senescent vegetation – Prescribed fires can rejuvenate native vegetation and create more diverse habitat conditions. Cultivation or grading for fire breaks will typically be a routine and ongoing activity, but additional fire breaks may be necessary to manage the fire. Some Covered Species may be overcome by intense heat or smoke.

The Cooperative Agreement will include take avoidance and minimization measures for State-listed species and Species of Conservation Concern that must be implemented as part of routine and ongoing ranching activities (see Section 4: Routine and Ongoing Agriculture Activities above). These measures are easily accomplished in the day-to-day operation of a livestock ranch. With the implementation of take avoidance and minimization measures, the potential incidental take of Covered Species during routine and ongoing ranching activities is expected to be minor.

The ACRC and the Department anticipate that implementation of the management practices will produce a net conservation benefit for the Covered Species by increasing habitat available to Covered Species for the terms of the Cooperative Agreements. These net conservation benefits may result from enhancing and restoring habitats; reducing fragmentation and increasing the connectivity of habitats; maintaining or increasing species population numbers or distribution; reducing the effects of catastrophic events; buffering protected areas; and creating areas for testing and implementing new management techniques and conservation strategies.

Net conservation benefits may contribute, directly or indirectly, to the recovery of the Covered Species and may be of varying duration and not permanent in nature. Although the VLP may not permanently conserve or recover species populations or their habitats, it nevertheless offers important short-term, mid-term, and, in some cases, long-term net conservation benefits.

As a fail-safe measure, the VLP includes the option for the Department to suspend or revoke the permits for cause in accordance with the laws and regulations in force at the time of such suspension or revocation. Such cause might be failure on the part of the Program Administrator to perform the duties

detailed in the VLP (including failure to assure that landowners perform the duties in their Cooperative Agreements), or declines in a species' population such that continuation of the program would cause jeopardy to the species' continued existence.

By restoring or enhancing habitat for Covered Species, the landowners will be creating opportunities for new individuals of the Covered Species to exist on the property. The habitat restoration, enhancement and management for Covered Species will occur in advance of the primary potential impacts associated with returning a property to baseline, and the benefits may exist for many years. Together with maintaining the baseline habitat quantity and general quality, these benefits for the species provided in advance of take, therefore, mitigate the effects of any incidental take.

6. Effects on Streams and Fisheries

Many creeks and streams run through the Program area and feed into tributaries of the San Francisco Bay. Riparian enhancement may require ground disturbance for bank stabilization, erosion repair, invasive species removal, and native vegetation planting. Such projects will be designed in consultation with the Program Administrator and other advising agencies (the Department, FWS, NRCS, and National Marine Fisheries Service (NMFS)) to avoid impacts (such as measures to prevent sediment from entering streams). Additional protective/mitigation measures will likely be required to comply with Fish and Game Code Section 1600 and Clean Water Act Section 404.

Routine and ongoing ranch management activities may include livestock entering and trampling stream channels, supplying water to livestock watering troughs, and removal of downed limbs or other vegetation clogging water control structures or waterways. These activities could potentially result in soil erosion and/or sedimentation of local creeks and subsequent minor water quality degradation resulting in potential adverse effects to special-status fish. Increased sediment input could increase turbidity and reduce feeding efficiency of juvenile and adult fish.

Activities that may affect stream habitat or water quality or supply can require notification to the appropriate agencies (DFG for Fish and Game Code §1602, U.S. Army Corps of Engineers for Clean Water Act, and Regional Water Quality Control Board for various water quality protection laws). Listed fish species are not Covered Species under the VLP, so any potential take of fish would require separate consultation with the Department and/or FWS or NMFS to obtain the appropriate take permits.

Suitable vegetation, including appropriate native species, would be planted concurrently or soon after removal of existing undesirable vegetation or other restoration or management actions to minimize the potential for severe erosion to occur on disturbed, unprotected land. When appropriate, fencing would be installed to protect enhanced and existing riparian and aquatic habitats. In addition, restoration and enhancement of natural riparian areas on rangelands would result in long-term beneficial effects to fish in the Program area by increasing complexity of the aquatic environment, and providing cover, food, shade, and other habitat components. Enhanced riparian and wetland buffers along streams will filter pollutants and trap sediments before they enter the aquatic environment, which in turn will improve water quality and benefit sensitive fish. Therefore, the overall effects of the VLP on streams, habitat, and fish species are considered beneficial.

7. Effects on Other Biological Resources

The other types of biological resources not previously discussed that might be affected by the VLP include non-listed species, sensitive habitats, common wildlife, and vegetation. The initial planning assessment conducted for each enrolling property will note the location and amount of the sensitive habitat areas for Covered Species, so that enhancement and restoration activities can avoid unnecessary impacts.

Some habitats and natural communities are considered sensitive because of high species diversity, high productivity, unusual nature, limited distribution, declining status, or a combination of these attributes. Local, state, and federal agencies consider such habitats important. Sensitive habitats in the program area include Sycamore Alluvial woodlands, riparian woodlands and freshwater wetlands. These may be temporarily impacted by enhancement, restoration, and ranch management practices. Degraded habitat areas may need to be impacted to take actions that will improve conditions such as removing invasive species, planting native vegetation, restoring hydrology, or constructing fencing to facilitate controlled grazing. Such impacts will be planned to avoid and minimize impacts, and to be short term. Sensitive habitats that are higher quality provide more of the necessary life requisites that plants and animals need, e.g. more and better breeding conditions, food, shelter, and less competition for resources from invasive or non-native species. The enhancements will result in a long-term increase in the overall amount of sensitive habitat, habitat quality, and the populations of plants and animals it supports.

The management practices are designed to incorporate avoidance and minimization measures that prevent impacts to listed, special status, sensitive, and common species while enhancing the habitat. These practices could temporarily reduce habitat value for populations of common plant and animal species on enrolled properties, but these species and their habitats are locally and regionally abundant, widely distributed, and are not considered sensitive. Enhanced native habitats are anticipated to support greater numbers and a higher diversity of common species which would offset any temporary negative effects. Restoration and enhancement of natural habitat would reduce competition from invasive and non-native species, provide more and better quality habitat, and buffer these resources against losses in other areas from other impacts.

Some actions to change habitat conditions may have the potential to benefit one species but be detrimental to another. Careful planning with the landowners by the Program Administrator and consulting with agencies like NRCS, the Department and FWS will avoid or balance such conflicts.

In summary, effects on vegetation and common wildlife species from beneficial activities and management practices, including sensitive habitats, may be negative in the short term. However, the VLP will have a long-term beneficial effect on native habitat and associated plant and wildlife species. Thus, the impacts of the program are less than significant and will result in a positive environmental effect.

Finding: Less than significant impact with implementation of avoidance and minimization measures

V. CULTURAL RESOURCES

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Cultural Resources:

ACRCD and NRCS policies (General Manual 420, Part 401) ensure that the effects of conservation activities on historic properties are considered in the earliest planning stages and that cultural resource protection is accomplished as efficiently as possible. As with all ACRCD/NRCS conservation projects, including those covered by the watershed-based permits, ACRCD/NRCS identifies, examines, considers, and avoids potential impacts to cultural resources. Any conservation or restoration activities that would cause an adverse impact on cultural resources do not qualify for the VLP. All projects implemented under this Program will operate under the Federal Code of Regulations for the Protection of Historic Properties (36 CFR 800).

VLP will only have the potential to effect natural communities and agricultural lands, and will not impact any historic architectural properties, such as buildings, bridges and infrastructure. Therefore, for the purposes of this environmental assessment, the term cultural resource is used to describe prehistoric and historical archaeological sites, and locations important to Native Americans.

This document compares what would happen if the proposed Program proceeds with what would happen without the Program. Much of the actively managed rangeland has been subject to grading and plowing in the past due to historic agricultural activities. Current routine and ongoing management activities often require soil disturbance for forage production for livestock, pond maintenance, fire breaks, ranch road creation and maintenance, fence installation and maintenance, and other similar activities. These are part of the existing environmental baseline as these are activities that have occurred prior to the proposed Program and will continue to occur whether or not the proposed Program proceeds.

Projects included under the VLP that are planned with the assistance of the Natural Resources Conservation Service staff will be planned according to the requirements with the NRCS's State Level Agreement with the California State Historic Preservation Officer (SHPO). This State Level Agreement

establishes a process whereby California NRCS field office staff that has satisfactorily completed national and state NRCS cultural resources training addressing policy, procedures, and field identification may act as Cultural Resource Technicians (CRTs). CRTs are allowed to perform initial cultural resources review and field monitoring under the oversight of an archaeologist upon completion of training from the NRCS State Archaeologist. CRTs are trained to identify potential resources, stop work, protect the area, and call the Project Archaeologist. This State Level Agreement was recently renewed by the SHPO in June 2011 for another five years, demonstrating SHPO's satisfaction the performance of this agreement.

Projects that are planned without the assistance of the NRCS will be subject to appropriate records searches by a qualified archaeologist if ground disturbing activities are determined to have the potential to impact cultural resources.

Finding: No impact

VI. GEOLOGY AND SOILS

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|-------------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Geology and Soils:

Landslides have the potential to occur throughout the region, although they have not been considered a major problem. Most landslides occur on slopes greater than 15 percent, and most new landslides occur in areas that have experienced previous landslides. Most of the Program area has moderate to low landslide potential.

Erosion generally involves the removal of earth materials from one area with deposition in another, and is a normal and inevitable geologic process. Erosion increases with increasing slope, increasing precipitation, and decreasing vegetative cover. Erosion may be extremely high in areas where protective vegetation has been removed by fire, construction, or cultivation. High rates of erosion may have several negative impacts including degradation and loss of agricultural land, degradation of streams and other riparian and wetland habitats, and rapid silting of reservoirs. Erosion can be concentrated, as when land surfaces are gullied and stream banks are undercut, or it can be spread widely by sheetwash and slope denudation. Activities by people, such as grading, frequently accelerate erosion and sedimentation.

The proposed Program does not involve construction or urban development that could expose people to geologic hazards (e.g., earthquakes, landslides, liquefaction or collapse of structures). The risk of slope failure, liquefaction, or structural failure associated with the implementation of the proposed management practices will be addressed as part of the planning process when enrolling in the Alameda County VLP. The VLP planning process and policies require all projects to be evaluated for soil hazards and mitigated if appropriate. The ACRC and NRCS do no work in areas of known geologic instability without approval of a certified engineer. The possibility of near-term erosion and sedimentation would be offset by the long-term beneficial protection afforded to the soil by the cover of native riparian habitat with an established root system. Therefore, there is no potential for a negative impact to geology or soils.

See section VIII, Hydrology and Water Quality, for the discussion on impacts to water quality from implementation of management practices included in the program.

Finding: Less than significant impact

VII. GREENHOUSE GAS EMISSIONS

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-------------------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Greenhouse Gas Emissions:

The activities to be authorized under the VLP are known to contribute greenhouse gas emissions that are affecting climate change. However, there are also activities authorized under the VLP that are known to provide carbon sequestration, reducing the effects of greenhouse gases. The ACRCDC and the Department does not believe approval of the Program will result in an adverse impact associated with greenhouse gas emissions.

The routine and ongoing ranching activities authorized by the VLP will include the use of vehicles and ranch equipment, and livestock grazing which will produce greenhouse gas emissions, carbon dioxide and methane respectively.

Livestock ranching has been occurring on these lands for decades. Properties that enroll in the program will remain in livestock production and are anticipated to have livestock numbers and vehicle and equipment usage remain approximately the same as current conditions. These activities and their related emissions are historic and ongoing activities and the ACRCDC expects the activities and related impacts will continue regardless of the proposed program. For purposes of CEQA, the greenhouse gas emissions associated with these historic and ongoing activities are considered part of the environmental baseline.

The discussion that follows focuses on the nature and extent to which the proposed Program will cause a physical change to the existing environmental baseline. The threshold by which project-related greenhouse gas impacts would be considered significant is whether project-related impacts will impair California's ability to achieve the reduction goals established by Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006. AB 32 establishes a statewide greenhouse gas emissions cap for 2020, based on 1990 emissions (California Climate Change Portal).

While VLP covered activities are known to produce historic and ongoing greenhouse gas emissions, ACRCDC expects the proposed Program, if approved and implemented, will result in a net reduction in these emissions. The VLP authorizes habitat restoration and enhancement to improve vegetation cover and quality on the properties. The actions will involve additional vehicle and equipment operation for vegetation removal, soil conditioning, pond and wetland construction and restoration, seed and vegetation planting among several other restoration project activities. These activities will result in a slight increase in greenhouse gases.

Habitat enhancement activities for each enrolled property are expected to be of short duration. Potential increases in emissions from enhancement activities will only occur in the initial phases (a few days to a few weeks) when vehicular and equipment operation is necessary to carry out the restoration and enhancement actions. Initial vegetation planting may require irrigation for a year or two, which irrigation could involve operating water pumps. Native habitat restoration requires little to no maintenance and therefore little to no additional greenhouse gas emissions.

Carbon sequestration is the process by which atmospheric carbon dioxide is absorbed by vegetation through photosynthesis and stored as carbon in biomass (trunks, branches, foliage, and roots) and soils. Carbon sequestration in natural vegetation helps offset fossil fuel emissions, one of the key drivers of human-induced climate change (USFS). Ranching practices can increase the ability of rangelands to sequester additional atmospheric carbon while enhancing other ecosystem services, such as improved soil and water quality (USFS). Planting native vegetation, restoring ecosystem function, and improving natural community health are some of the ways to increase sequestered carbon. All of these beneficial activities will occur during implementation of the VLP.

The VLP does not authorize a change in land use that would result in significant changes to acreages of natural vegetation. The habitat restoration and enhancement to be conducted under the VLP will result in some removal of vegetation that could increase carbon dioxide emissions from decaying vegetation and by reducing carbon sequestration capacity. The vegetation removal is the first step of the activities planned to improve and increase native species' vegetative cover, abundance, and quality on enrolled properties. Subsequent actions would include planting native vegetation and grazing management to enhance native vegetation. The result of the habitat restoration and enhancement is expected to be a net increase in the carbon sequestration capacity of enrolled properties.

Over the 10 year lifetime of the VLP - as well as the lifetime of the practices established the VLP - the long term carbon sequestration benefits of this program are expected to more than offset the short term effects of emissions from the enhancement actions and return to baseline actions (if any). Thus, the VLP is expected to result in a net reduction in greenhouse gases over the existing environmental baseline.

Participation in the VLP will contribute to the ability of landowners to sustain a viable ranching business and hopefully prevent such lands from being converted to other more industrial or urban uses that would produce significantly more greenhouse gas emissions. ACRC and the Department do not believe approval of the program will result in an adverse impact associated with greenhouse gas emissions. The proposed program is not expected in any respect to impair California's ability to achieve the reduction goals established by AB 32. The Department has concluded that the potential environmental effects on climate from the VLP are less than significant, and the Department believes they will positively affect the environment over the life of the program.

Finding: Less than significant impact

VIII. HAZARDS AND HAZARDOUS MATERIALS

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Hazards and Hazardous Materials:

Hazardous Materials:

Hazardous materials include all toxic, flammable, combustible, corrosive, poisonous, and radioactive substances, and hazardous waste. The four major concerns regarding hazardous materials are their transportation, storage, operational uses, and unauthorized use/discharge. Hazardous materials are used in many forms and activities throughout the region. The most heavily used substances are motor vehicle fuels, lubricants, and propane. The routine and ongoing ranching activities will continue to use fuel for vehicles in substantially the same amounts prior to the Program. Any operation that discharges wastes onto land or into bodies of water must also meet discharge requirements established by the Regional Water Quality Control Board.

Conservation actions with the potential to release hazardous materials into waterways are not covered by the program. Some use and storage of earthmoving equipment at the site will occur during the implementation of the practices. To ensure that adverse impacts do not occur during routine operations, the use or storage of petroleum-powered equipment will be accomplished in a manner to prevent the potential release of petroleum materials into waters of the state (Fish and Game Code 5650). All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

Regulations regarding the use of herbicides, pesticides, and fertilizers that contain hazardous materials are administered by the State Department of Food and Agriculture in conjunction with the County Agricultural Commissioners. Landowners enrolled in the program may use regulated herbicides in compliance with specified application standards. The use of herbicides, pesticides, and chemical fertilizers will be avoided to the greatest extent possible. If necessary, herbicides may be used to control established stands of exotics, including, but not limited to Himalayan blackberry, Cape ivy, and giant reed, or invasion of exotics into restoration plantings. Herbicides will be applied to those species according to the registered label conditions. Herbicides will be applied directly to plants and not spread upon water or where they can leach into waterways during rains.

Hazards:

The term “wildfire” refers to fires that usually result from the ignition of dry grass, brush, or timber. Wildfires commonly occur in areas that are characterized by steep, heavily vegetated hillsides, which make suppression of the fire difficult. Wildfires play an important role in the ecology of many natural habitats. Some ecosystems are dependent upon recurrent fire to survive and have adapted to reestablishing themselves after a fire.

Calculation of threat from wildfire hazard is based on a number of combining factors including fuel loading (vegetation), topography, and climatic conditions such as winds, humidity and temperature. Generally speaking, late summer and early fall are the periods of greatest risk for wildland fire, when vegetation is at its driest. Human activity, including agricultural burning, mowing of dead grass, careless disposal of cigarettes, campfires, and use of fireworks can all trigger fires; natural causes such as lightning strikes may also cause fires. Wildland fire prevention activities will continue to occur on enrolled properties. The proposed actions would occur on private properties, and typically some distance from public roads; therefore, it would not conflict with an adopted emergency response plan or other emergency plan.

In sum, VLP is designed to enhance the sustainability of agricultural practices, thereby reducing the likelihood that agricultural lands will be changed to land uses that might expose people and property to hazards or hazardous materials. As a result, substantial impacts resulting from significant changes to the landscape that might expose people and property to hazards or hazardous materials will not occur.

Finding: Less than significant impact.

IX. HYDROLOGY AND WATER QUALITY

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

including flooding as a result of the failure of a levee or dam?

j) Inundation by seiche, tsunami, or mudflow?

Discussion of Hydrology and Water Quality.

The management practices selected for coverage by this Program are specifically designed to resolve erosion and sediment problems, to minimize runoff from agriculture, and to be installed in such a manner to avoid and minimize environmental impacts while improving wildlife habitat. Some enhancement and restoration activities may result in temporary disturbance to drainages, streams, or rivers. Through the implementation of best management practices and erosion control measures both during construction and after, the selected management practices will avoid adverse impacts to adjacent watercourses, hydrology, and water quality. The implementation of the selected practices will incorporate environmental protection and avoidance and minimization measures described as part of the management practices in Section 3: Management Practices above. These protective measures function to prevent construction-related erosion and sediment release to waterbodies. Reduced erosion and consequent improvement in water quality of Alameda County streams are primary objectives and benefits of the Alameda County VLP program; however, some temporary, construction-related increase in sediment would occur.

The management practices when implemented will adhere to water quality standards and the programmatic federal Clean Water Act §401 Conditions and requirements as detailed by the San Francisco Bay Regional Water Quality Control Board as part of the permitting process for this Program. Compliance with prohibitions provided by the San Francisco Bay Regional Water Quality Control Boards will mitigate any potential adverse water quality impacts. Landowners conducting activities that could potentially impact a river, stream or lake are required to notify the Department pursuant to FGC §1602. If the Department determines that the activity could substantially adversely affect an existing fish and wildlife resource, a Lake or Streambed Alteration Agreement is required.

VLP is designed to enhance the sustainability of agricultural practices, thereby reducing the likelihood that agricultural lands will be changed to land uses that might expose people and property to hazards or hazardous materials. Significant changes to the landscape that might result in substantial impacts on hydrology and water quality will not occur. If a change occurs, it would involve improved water quality on participating properties where habitat is being enhanced and management practices altered (such as reducing grazing impacts in wetlands and riparian areas).

The enhancement and restoration activities are intended to increase habitat, improve habitat quality, hydrologic function, and water quality. Activities that increase vegetation along waterways will help to protect soils and maintain stable stream banks, thus protecting surrounding land uses from damage from flood waters.

Finding: Less than significant impact

X. LAND USE PLANNING

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Land Use Planning:

Alameda County encompasses an area of 469,400 acres and is situated in the greater East Bay region. The majority of the county's population lives in the highly urbanized area along the easternmost portion of San Francisco Bay. This western portion of Alameda County includes the cities of Alameda, Berkeley, Fremont, Hayward, Oakland and San Leandro. The rural, eastern portion supports ranching, with an urban/suburban center located in the Tri-Valley region of Dublin, Livermore, and Pleasanton (see Figure 2 in Appendix A). The county is approximately 50% agricultural land and 50% urban lands. The majority of the land that would be covered under this Program is primarily the eastern, rural portion of Alameda County and agricultural properties adjoining or encompassing creeks in the rural-urban interface areas.

Agricultural lands dominate the eastern portion of the county; most are within the Alameda Creek Watershed (see Figure 2 in Appendix A). Grazing on 200,000 acres of rangeland is the predominant agricultural land use followed by viticulture, which covers approximately 4,000 acres. Other significant land uses include field and vegetable crops and nursery products. Wind farms are situated in the vicinity of Altamont Pass mostly, on privately owned rangelands near the eastern edge of Alameda County. These rangelands are currently grazed and play an important role in managing for fuel loads and maintaining valuable grassland habitat.

The Alameda VLP is designed to provide an incentive for agricultural landowners to voluntarily enhance habitat values while maintaining economic vitality for ranching and/or other agricultural uses. Conversion to non-agricultural uses is not covered nor authorized by the VLP. Wildlife habitat enhancement on existing agricultural lands does not conflict with existing land use plans.

The Eastern Alameda County Conservation Strategy (EACCS) was completed in 2011 to preserve endangered species by developing a shared vision for long term habitat protection. The EACCS assessed areas all across East Alameda County for their conservation value and establish guiding biological

principles for conducting conservation in the county. Part of that guidance includes working with willing landowners to implement long-term conservation stewardship that would offset impacts from local land use, transportation or other infrastructure projects. The EACCS is being used to primarily provide a streamlined, environmental permitting process for infrastructure projects in the East Alameda County and provide a mechanism to focus mitigation efforts within the area. This Program does not conflict with the EACCS and complements the Strategy's habitat enhancement and restoration activities.

Finding: No impact

XI. MINERAL RESOURCES

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| Would the project | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Mineral Resources:

The proposed Program would be implemented on agricultural lands where the landowner volunteers to participate in the program. Participation in the program would not result in the loss of availability of mineral resources nor preclude future use of the sites for mineral extraction.

No impact related to mineral resources will occur as a result of the Alameda County VLP. Therefore, the proposed Program would have no impact on mineral resource availability.

Finding: No impact.

XII. NOISE

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| Would the project result in: | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Noise:

The Alameda County VLP authorizes take of state and federally-listed Covered Species associated with routine and ongoing agricultural activities that will include some common farming activities such as operation of tractors and other equipment. Tractor use has occurred on the project sites and in the Program area for decades as a standard part of agricultural practices, and local noise ordinances and standards do not restrict these activities. The proposed Program would involve new short-term habitat restoration and enhancement activities that would use the same types of equipment as normal agricultural activities such as standard diesel-powered tractors. Temporary ambient noise levels in the program vicinity will not exceed existing noise generated by common agricultural management. Large-scale riparian/wetland/pond habitat enhancement activities will result in temporary increased noise levels while the work is occurring. This scale of activity is anticipated to be uncommon, infrequent, and of short duration (usually lasting no more than 8 weeks). These effects are local in nature and would end with completion of the project. The proposed Program would not result in long-term generation of noise from any source, nor would it increase ambient noise levels.

Finding: Less than significant impact

XIII. POPULATION AND HOUSING

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Housing:

All Alameda County VLP enrolled lands will remain in agricultural use as ranchlands. Conversion to non-agricultural uses is not covered nor authorized by the VLP. The proposed Program would not construct additional infrastructure that would lead to population growth nor would the Program displace residents.

Finding: No impact

XIV. PUBLIC SERVICES

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | |
| Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Public Services:

Public services include schools, libraries, transit, recreation facilities, water supply, wastewater treatment, solid waste disposal, police and fire protection, and the infrastructure to supply these services. Conversion to non-agricultural uses is not covered nor authorized by the VLP. Public services that may be affected by the VLP include water supply, fire protection, and infrastructure.

Agricultural operations in the Program area use water primarily for livestock watering, domestic uses, and irrigation of crops. Landowners typically use wells or springs on the property, but may have rights to surface waters from onsite creeks, streams, and rivers, or water supplied by local water agencies. Habitat restoration and enhancement activities may require water to irrigate newly planted native vegetation such as riparian trees and shrubs. These requirements for additional water supply are expected to be short term. New plantings typically will only require irrigation for the first few years.

Fire protection is offered throughout the program area from a combination of sources: city fire departments; county fire departments; and the California Department of Forestry and Fire Protection (CalFire). The first priority for response is human safety and property protection. In the event of a wildland fire, CalFire would be the primary responder. The lands targeted to enroll in the program are ranch and agricultural lands that currently support natural habitat susceptible to wildland fire. Some management actions may reduce fire hazards by decreasing non-native grasses and invasive species and

replacing them with native grasses and native riparian vegetation which would be less susceptible to extreme wildland fire. The program is not expected to require increased services over current conditions.

Finding: No impact

XV. RECREATION

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-------------------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Recreation:

Park and recreational facilities in the program area are owned and operated by a variety of government entities, including the cities, special districts, and state governments. Additionally, some private lands are managed as recreational facilities such as hunting clubs.

Conversion to non-agricultural uses is not covered nor authorized by the VLP. Although recreation can contribute to maintaining economic vitality for ranches, the VLP does not authorize construction of recreational facilities for nonagricultural uses.

The Alameda County VLP will not increase the use of any recreational facility, nor will it include the construction or expansion of such facilities.

Finding: No impact

XVI. TRANSPORTATION/TRAFFIC

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Transportation and Traffic:

Conversion to non-agricultural uses is not covered nor authorized by the VLP. The proposed Program would not result in increased traffic on local public roads and at intersections that would be substantial in relation to the existing traffic load and the capacity of the local street system. Local traffic congestion would not increase as a result of the proposed program, nor would air traffic be affected. The proposed Program would not result in any hazard relating to a project design feature. Use of standard farm equipment during project implementation phases would be consistent with historical agricultural practices in the region that have included the presence of slow-moving farm equipment on local roadways. Implementation of the proposed program would not result in an incremental increase in this type of hazard. No local emergency access route would be impaired as a result of the proposed Program. No public parking would be provided related to the proposed Program.

Finding: No impact.

XVII. UTILITIES AND SERVICE SYSTEMS

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Utilities and Service Systems:

Water supply and wastewater treatment are concerned with the removal of water from its natural environment and its return to this environment after it has been used by people for a variety of purposes. Wastewater treatment on rural properties is typically addressed through onsite septic systems for the individual homes. Conversion to non-agricultural uses is not covered or authorized by the VLP, nor is the construction of new homes or facilities that would require wastewater treatment. The proposed Program would not generate wastewater, nor would it include expansion of existing treatment facilities. Since conversion to non-agricultural uses will not be authorized, storm water runoff will not be generated. No change in constructed storm water facilities would occur. Any need for irrigation of new habitat plantings would require minimal supplies and would be short term in duration. Enrolled landowners would either pump groundwater or purchase or redirect surface waters for the irrigation. The proposed Program would

not generate waste that would require disposal at a landfill. No impacts to utilities or service systems would result from this Program.

Finding: No Impact

XII. MANDATORY FINDINGS OF SIGNIFICANCE

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-------------------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Mandatory Findings of Significance:

The Alameda County Voluntary Local Program will not degrade the quality of the environment, substantially reduce habitat for fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Such a potential does not exist because the program will be implemented in such a manner as to avoid short-term impacts to sensitive resources. The program has no potential to adversely impact cultural resources or human beings. The program does not have the potential for adverse cumulative impacts. The program will result in improvement in water quality, natural habitat functioning, and agricultural sustainability.

The purpose of the Alameda County VLP is to encourage non-federal landowners to voluntarily enhance, restore, and maintain habitat for sensitive, candidate, threatened and endangered species. The selected management practices are intended to reduce erosion and sedimentation and enhance habitat values in Alameda County watersheds. Project implementation will contribute to the health of the natural resources and agricultural sustainability in Alameda County. Some enhancement and restoration activities may result in temporary disturbance to sensitive plant communities such as riparian corridors and wetlands that

support Covered Species. However, the enhancement and restoration activities are intended to result in increased habitat and improved habitat quality including enhanced habitat connectivity across the agricultural landscape. As a result of these proposed conservation activities, wildlife habitat values on private land would be increased, listed species protected, and water quality improved in Alameda County streams.

In exchange for voluntarily enhancing sensitive species habitat, landowners who enroll in the VLP and comply with all program requirements will receive take authorization for state and federally-listed Covered Species associated with routine and ongoing agricultural activities and return to baseline conditions. These activities will result in the incidental take of listed species and/or their habitat. In combination with take avoidance and minimization measures (see e.g., Mitigation Measures 1-24 above) added to the program to mitigate these effects the voluntary habitat enhancement and restoration in advance of the take offsets the impacts associated with the take from routine and ongoing agricultural activities.

A full range of potential environmental effects have been examined for this Initial Study (IS). All impact issues have been found to be less than significant based on the Environmental Checklist and supporting discussion. No significant adverse effects on the environment were identified as a result of the analysis, so no significant unavoidable effects are anticipated.

Finding: Less than significant impact with mitigation incorporated.

9. REFERENCES

- Bobzien, S. and J.E. Didonato. 2007. The status of the California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana draytonii*) and other aquatic herpetofauna in the East Bay Regional Park District, California. East Bay Regional Park District, 2950 Peralta Oaks Court, P.O. Box 5381, Oakland, CA 94605. © East Bay Regional Park District 2007.
- California Department of Fish and Game. 2005. California Wildlife Habitat Relationships System for California Tiger Salamander (*Ambystoma californiense*) Life History Account. California Department of Fish and Game California Interagency Wildlife Task Group. Original description 1997, updated in 2005.
- California Department of Fish and Game. 2005. California Wildlife Habitat Relationships System for Ringtail (*Bassariscus astutus*) Life History Account. California Department of Fish and Game California Interagency Wildlife Task Group. Original description 1997, updated in 2005.
- California Department of Fish and Game. Not dated. Species Accounts: Reptiles http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/docs/2004/t_ereptiles.pdf
- California Partners in Flight (CalPIF). 2002. Version 2.0. The oak woodland bird conservation plan: a strategy for protecting and managing oak woodlands habitats and associated birds in California (S. Zack, lead author). Point Reyes Bird Observatory, Stinson Beach, CA (<http://www.prbo.org/capif/plans.html>)
- CNDDDB (*California Natural Diversity Data Base*). 2010. California Department of Fish and Game, Sacramento, CA. <http://www.dfg.ca.gov/biogeodata/cnddb/>
- East Alameda County Conservation Strategy. Final Draft, October 2010. ICF International.
- Environmental Protection Agency. 2010. Endangered Species Facts: Alameda Whipsnake. U.S. Environmental Protection Agency, Endangered Species Protection Program. <http://www.epa.gov/espp/factsheets/alameda-whipsnake.pdf>
- Mayer, K.E., and W.F. Laudenslayer. 1988. A guide to wildlife habitats of California. California Department of Forestry and Fire Protection, Sacramento, CA. 166 pp.
- McCamman, John. 2010. Report to the Fish and Game Commission: A Status Review of the California Tiger Salamander (*Ambystoma californiense*) State of California Natural Resources Agency Department of Fish and Game.
- Natural Resources Conservation Service and Alameda County Resource Conservation District. 2006. Draft Pond Restoration Design and Plan.
- Richmond, B, Helen Green and D.C. Rics. 2011. *Alameda County Breeding Bird Atlas*. Published by the Golden Gate and Ohlone Audubon Societies.
- Sawyer, J. O, T. Keeler-Wolf, and J.M. Evens. 2008. *A Manual of California Vegetation*, Second Edition. California Native Plant Society, Sacramento, CA.

- Trenham, P.C., H.B. Shaffer, W.D. Koenig, and M.R. Stromberg. 2000. Life history and demographic variation in the California tiger salamander (*Ambystoma californiense*). *Copeia* 2000(2):365-377.
- Trenham, P.C. and H.B. Shaffer. 2005. Amphibian upland habitat use and its consequences for population viability. *Ecological Applications* 15(4):1158-1168.
- U.S. Fish and Wildlife Service. 1997. Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Callippe Silverspot Butterfly and the Behren's Silverspot Butterfly and Threatened Status for the Alameda Whipsnake, Final Rule. *Federal Register* Vol. 62, No. 234: 64307-64320.
- U.S. Fish and Wildlife Service. 2002. Recovery Plan for the California red-legged frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. vii + 173 pp.
- USFWS (U.S. Fish & Wildlife Service Sacramento Fish & Wildlife Office). 2005. *Alameda Whipsnake (Masticophis lateralis euryxanthus) Species Account*
- USFWS (U.S. Fish & Wildlife Service Sacramento Fish & Wildlife Office). 2007b. *California tiger salamander (Ambystoma californiense)*
- U. S. Fish and Wildlife Service (USFWS). 2004. Determination of threatened status for the California tiger salamander; and special rule exemption for existing routine ranching activities; Final Rule. *Federal Register*, Vol. 69:47212-47248.
- U. S. Fish and Wildlife Service (USFWS). 2005. Designation of critical habitat for the California tiger salamander, Central Population; Final Rule. *Federal Register*, Vol. 70:49380-49458.
- U.S. Fish and Wildlife Service. 2006. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Alameda Whipsnake, Final Rule. *Federal Register* Vol. 71, No. 190: 58176-58231.

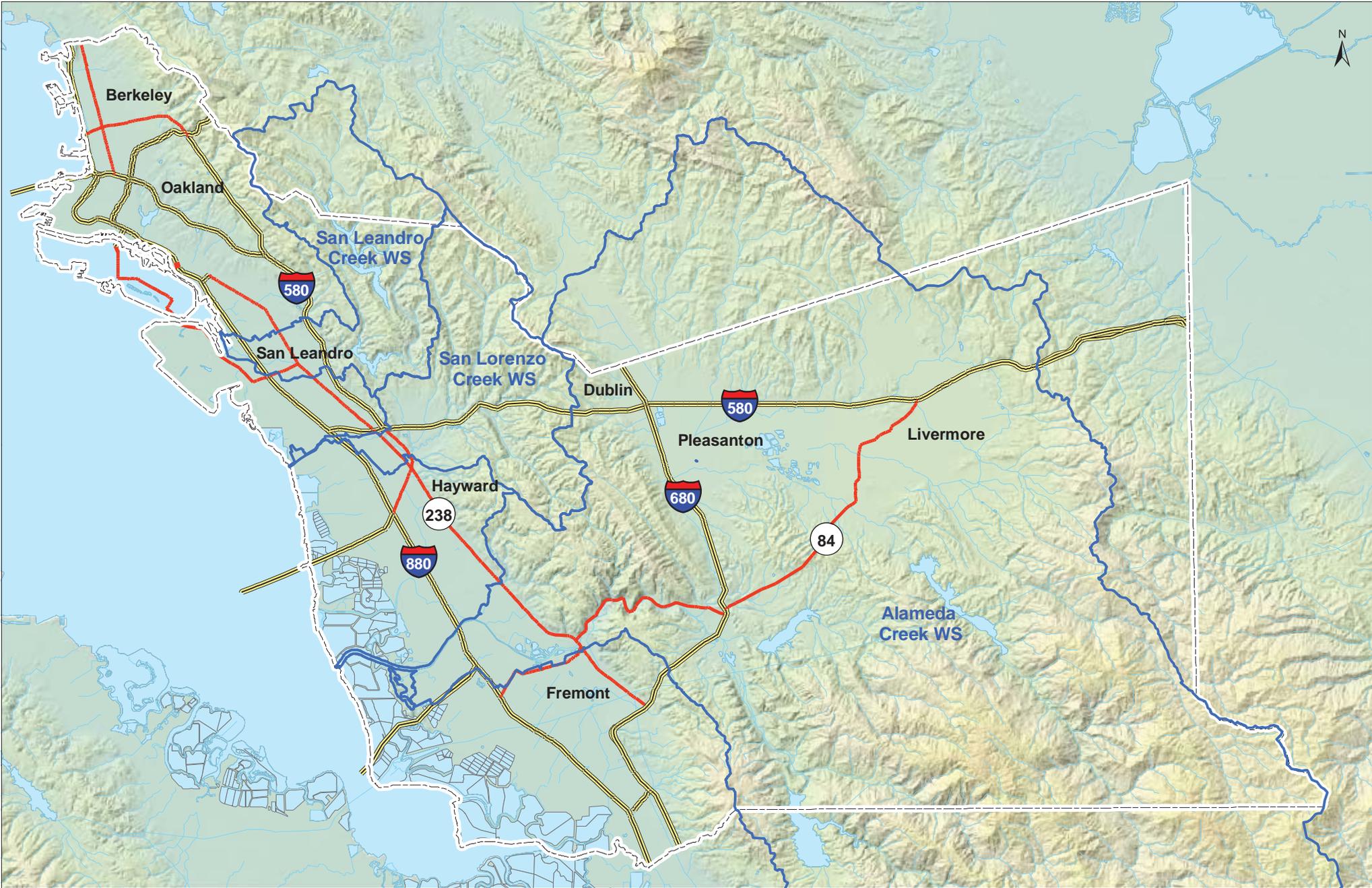
ALAMEDA COUNTY RESOURCE CONSERVATION DISTRICT

FINAL MITIGATED NEGATIVE DECLARATION

FOR

THE ALAMEDA COUNTY VOLUNTARY LOCAL PROGRAM

APPENDIX A



Interstate

Major Highways

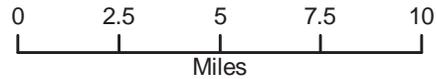
State Highway

Stream

Watershed Boundary

Alameda County

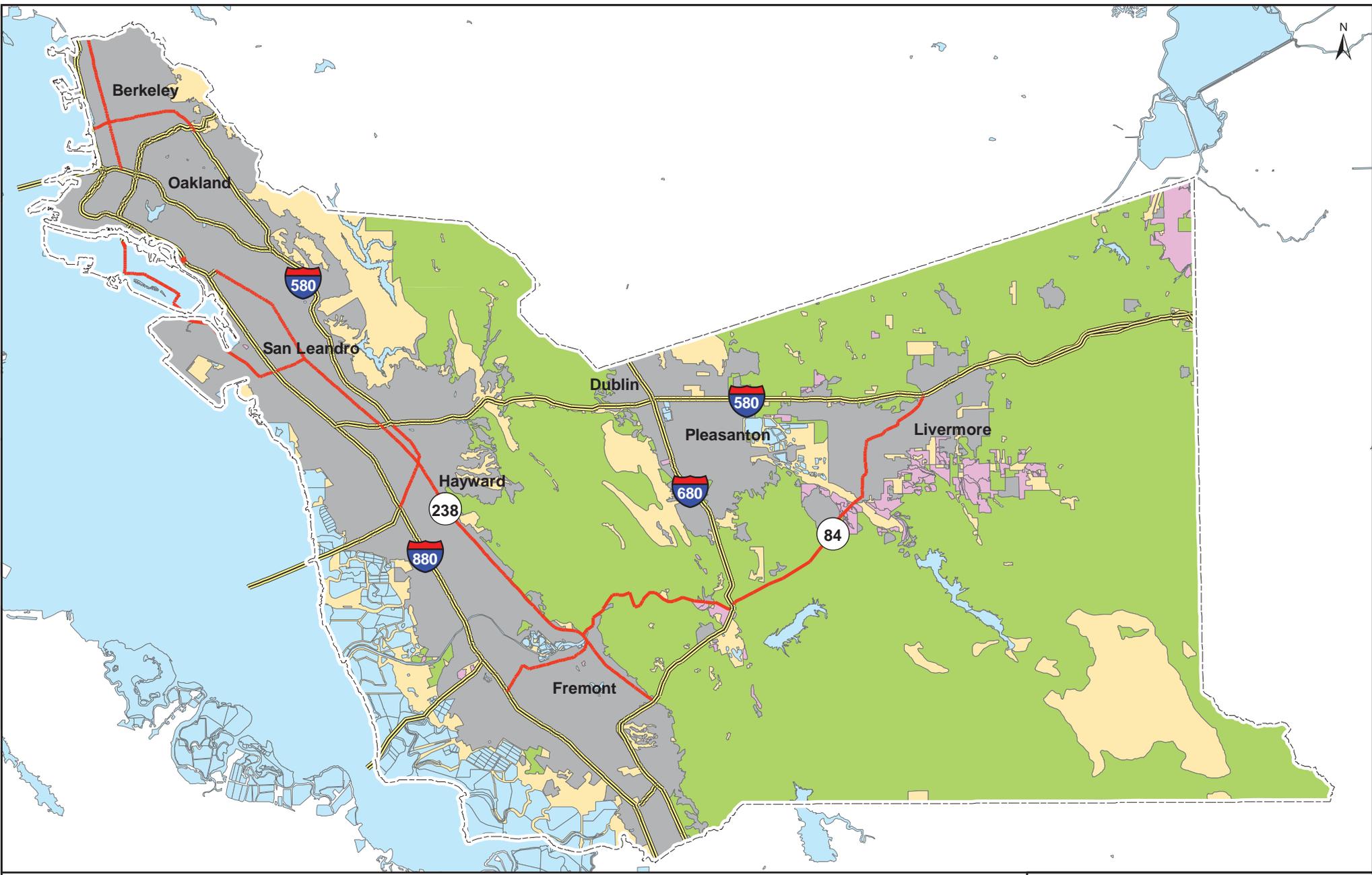
Lake/Reservoir



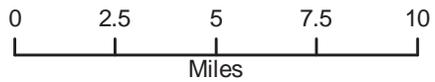
Data Source:
Alameda Countywide Water Program,
USGS, U.S. Census Bureau



Figure 1 Project Area



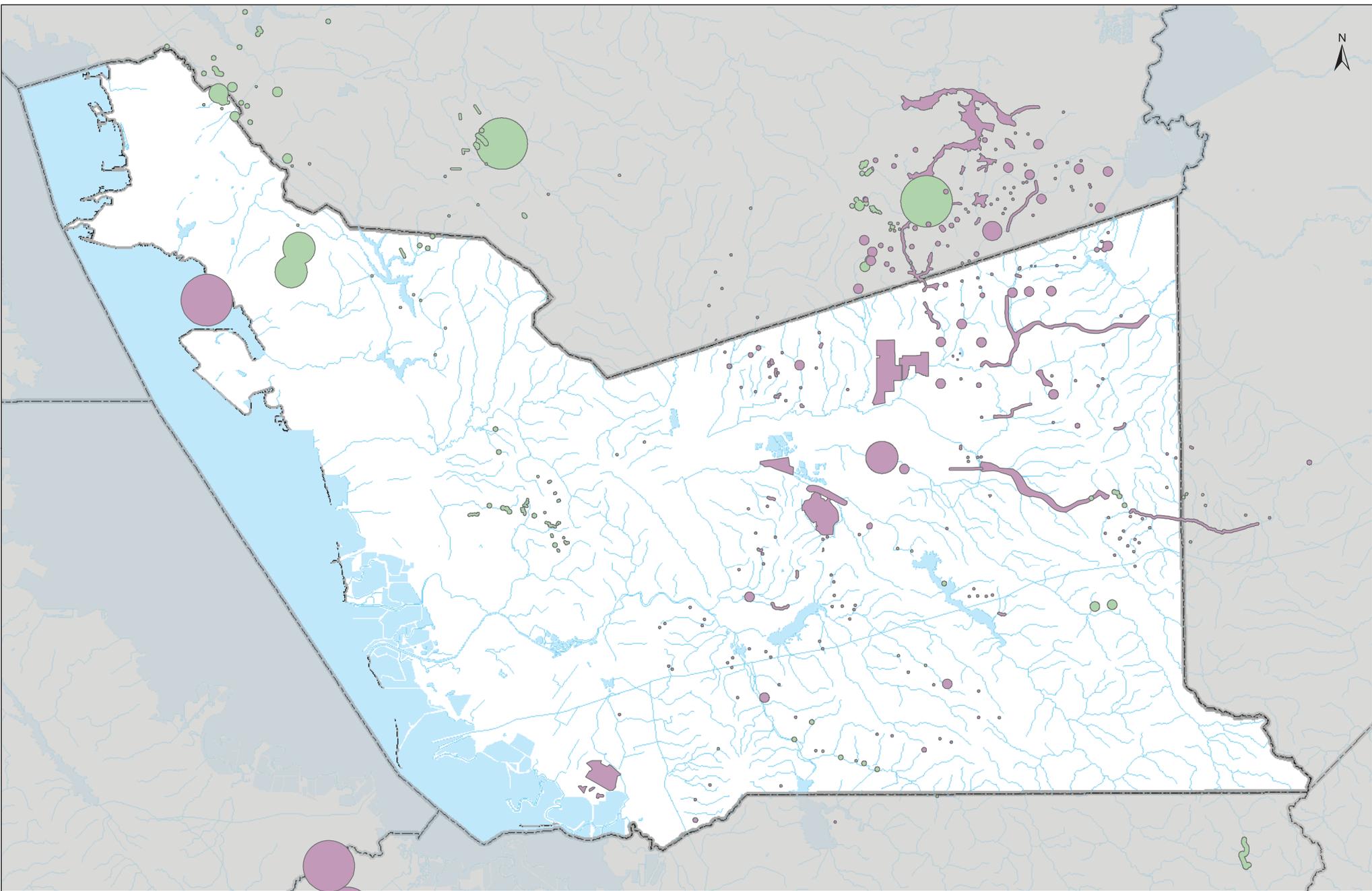
- Farmland
- Grazing Land
- Urban and Buildup Land
- Water
- Other (rural dev., mined land, etc.)
- Interstate
- Major Highways
- State Highway
- Alameda County



Data Source:
 Alameda Countywide Water Program,
 USGS, U.S. Census Bureau

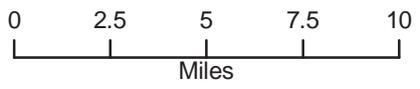


**Figure 2 Alameda County
 Land Use**



 Alameda County
 Lake/Reservoir
 Stream

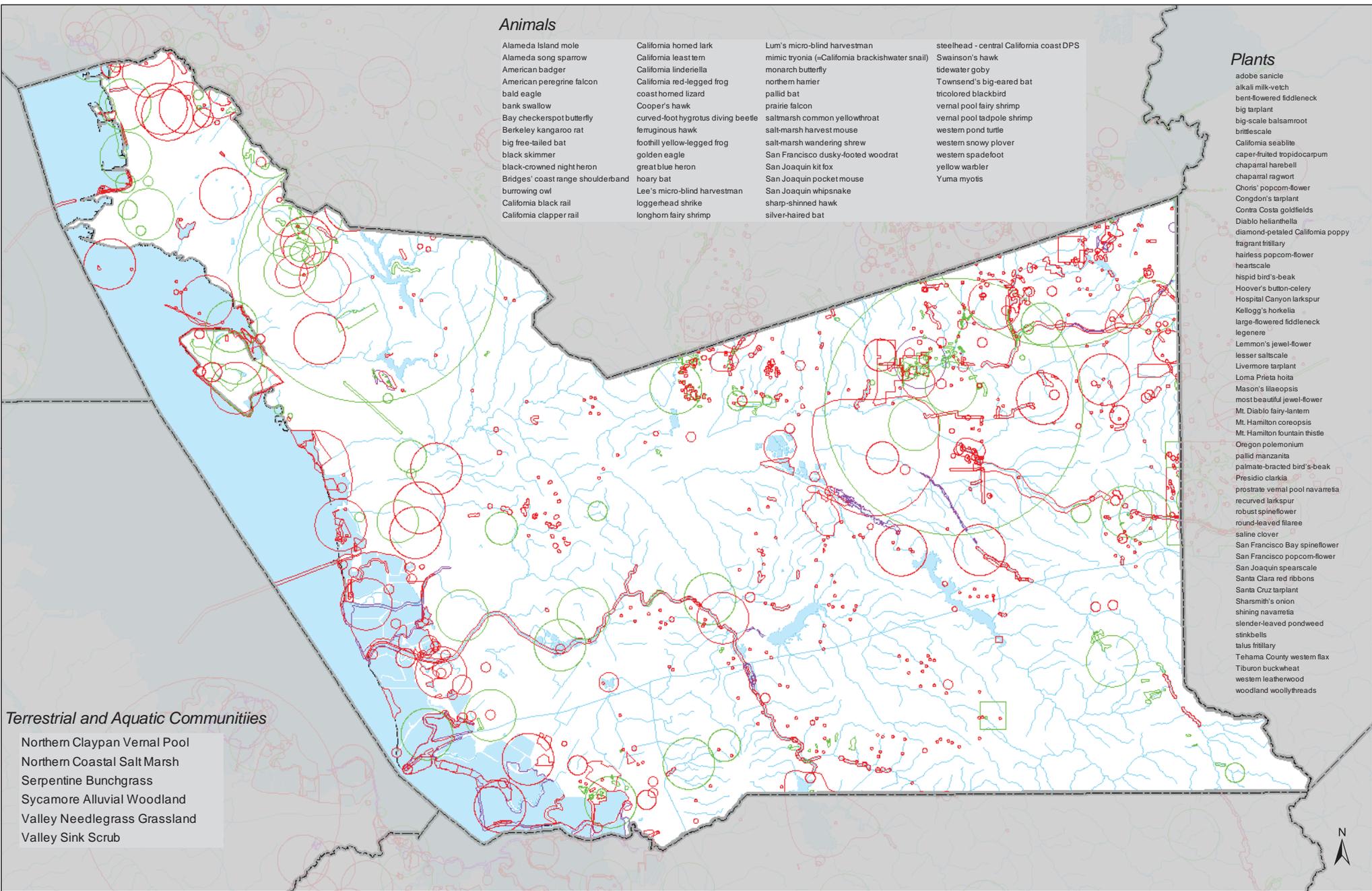
Covered Species
 Alameda whipsnake
 California tiger salamander



Data Source:
CNDDB, CASIL



Figure 3
Covered Species



Animals

- | | | | |
|-----------------------------------|----------------------------------|---|--|
| Alameda Island mole | California horned lark | Lum's micro-blind harvestman | steelhead - central California coast DPS |
| Alameda song sparrow | California least tern | mimic tryonia (=California brackishwater snail) | Swainson's hawk |
| American badger | California linderella | monarch butterfly | tidewater goby |
| American peregrine falcon | California red-legged frog | northern harrier | Townsend's big-eared bat |
| bald eagle | coast horned lizard | pallid bat | tricolored blackbird |
| bank swallow | Cooper's hawk | prairie falcon | vernal pool fairy shrimp |
| Bay checkerspot butterfly | curved-toothgrotus diving beetle | saltmarsh common yellowthroat | vernal pool tadpole shrimp |
| Berkeley kangaroo rat | ferruginous hawk | salt-marsh harvest mouse | western pond turtle |
| big free-tailed bat | foothill yellow-legged frog | salt-marsh wandering shrew | western snowy plover |
| black skimmer | golden eagle | San Francisco dusky-footed woodrat | western spadefoot |
| black-crowned night heron | great blue heron | San Joaquin kit fox | yellow warbler |
| Bridges' coast range shoulderband | hoary bat | San Joaquin pocket mouse | Yuma myotis |
| burrowing owl | Lee's micro-blind harvestman | San Joaquin whipsnake | |
| California black rail | loggerhead shrike | sharp-shinned hawk | |
| California clapper rail | longhorn fairy shrimp | silver-haired bat | |

Plants

- adobe sanelle
- alkali milk-vech
- bent-flowered fiddleneck
- big tarplant
- big-scale balsamroot
- brittsescale
- California seabite
- caper-fruited tropidocarpum
- chaparral harebell
- chaparral ragwort
- Choris' popcom-flower
- Congdon's tarplant
- Contra Costa goldfields
- Diablo helianthella
- diamond-petaled California poppy
- fragrant fritillary
- hairless popcom-flower
- heartscale
- hispid bird's-beak
- Hoover's button-celery
- Hospital Canyon larkspur
- Kellogg's horkelia
- large-flowered fiddleneck
- legenera
- Lemmon's jewel-flower
- lesser saltscale
- Livemore tarplant
- Loma Prieta hoita
- Mason's illaeopsis
- most beautiful jewel-flower
- Mt. Diablo fairy-lantern
- Mt. Hamilton coreopsis
- Mt. Hamilton fountain thistle
- Oregon polemonium
- pallid manzanita
- palmete-bracted bird's-beak
- Presidio clarkia
- prostrate vernal pool navaretta
- recurved larkspur
- robust spineflower
- round-leaved filaree
- saline clover
- San Francisco Bay spineflower
- San Francisco popcom-flower
- San Joaquin spearscale
- Santa Clara red ribbons
- Santa Cruz tarplant
- Sharsmith's onion
- shining navaretta
- slender-leaved pondweed
- stinkbells
- talus fritillary
- Tehama County western flax
- Tiburon buckwheat
- western leatherwood
- woodland woollythreads

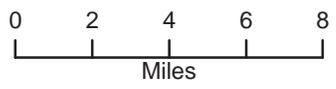
Terrestrial and Aquatic Communities

- Northern Claypan Vernal Pool
- Northern Coastal Salt Marsh
- Serpentine Bunchgrass
- Sycamore Alluvial Woodland
- Valley Needlegrass Grassland
- Valley Sink Scrub

- Alameda County
- Lake/Reservoir
- Stream

Sensitive Species and Communities

- Plant
- Animal
- Terrestrial or Aquatic Community



Data Source:
CNDDDB, CASIL



Figure 4: Other Sensitive Species and Vegetation Community Occurrences

Table 1. Alameda County Non-Covered Special Status Wildlife Species

| Species | Status ^a | | Potential to Occur | Discussion of Occurrences in Alameda County | Applicable Avoidance and Minimization Measures |
|--|---------------------|---------|--|---|--|
| | State | Federal | | | |
| Invertebrates | | | | | |
| Bay checkerspot butterfly <i>Euphydryas editha bayensis</i> | — | FT | No, out of species range | - | - |
| Longhorn fairy shrimp <i>Branchinecta longiantenna</i> | — | FE | Yes | Occur in vernal pool and seasonal ponded areas. | Mitigation Measure 20, 21 |
| Vernal pool fairy shrimp <i>Branchinecta lynchi</i> | — | FT | Yes | Occur in vernal pools, seasonal drainages, stockponds and rock outcrops. | Mitigation Measure 15, 20, 21 |
| Vernal pool tadpole shrimp <i>Lepidurus packardii</i> | — | FE | No, isolated occurrences in Alameda County. | | |
| Callippe silverspot butterfly <i>Speyeria callippe callippe</i> | — | FE | Yes | Occurs in grasslands where the larval host plant, johnny jump-up (<i>Viola pedunculata</i>) grows. | Mitigation Measure 20, 22 |
| Fish | | | | | |
| Green sturgeon <i>Acipenser medirostris</i> | CSC | FT | No, out of species range | - | - |
| Central California coast coho salmon <i>Oncorhynchus kisutch</i> | SE | FE | No, out of species range | - | - |
| Central CA coastal steelhead <i>Oncorhynchus mykiss</i> | — | FT | Yes | Current distribution of steelhead throughout most of Alameda County is limited by the downstream barriers along Alameda Creek which are slated to be removed in 2015. Rainbow trout are found in creeks in the County. The primary habitat consists of shaded pools of small, cool, low-flowing stream reaches. | Mitigation Measure 2, 5, 12, 13, 14 |
| Central Valley spring-run chinook salmon <i>Oncorhynchus tshawytscha</i> | — | FT | No, out of species range | - | - |
| Winter-run Chinook salmon, Sacramento River <i>Oncorhynchus tshawytscha</i> | — | FE | No, out of species range | - | - |
| River lamprey <i>Lampetra ayresi</i> | CSC | -- | Unknown, limited understanding of species distribution | The life history of river lampreys is not fully understood. River lampreys are anadromous and they live a predaceous life when in the ocean. Larval lampreys probably spend the first 3-5 years within a freshwater stream. | Will likely benefit from the same avoidance measures as steelhead; Mitigation Measure 2, 5, 12, 13, 14 |
| Delta smelt <i>Hypomesus transpacificus</i> | ST | FT | No, out of species range | - | - |
| Tidewater goby <i>Eucyclogobius newberryi</i> | CSC | FE | No, out of species range | - | - |

Table 1. Alameda County Non-Covered Special Status Wildlife Species

| Species | Status ^a | | Potential to Occur | Discussion of Occurrences in Alameda County | Applicable Avoidance and Minimization Measures |
|--|---------------------|----------------|--|---|---|
| | State | Federal | | | |
| Amphibians | | | | | |
| Western spadefoot <i>Spea hammondi</i> | CSC | — | Yes | Primarily occur in streams and stockponds. | Mitigation Measure 1, 2, 3, 4, 6, 7, 12, 13, 14, 16, 17 |
| California red-legged frog <i>Rana aurora draytonii</i> | CSC | FT | Yes | Primarily occurs in stockponds but can also be found along seasonal riparian areas with enough wet areas to support year round refugia and/or breeding habitat. | Mitigation Measure 1, 2, 3, 4, 6, 7, 12, 13, 14, 16, 17 |
| Foothill yellow-legged frog <i>Rana boylei</i> | CSC | — | Yes | Primarily occur along streams that have shallow areas with cobble-sized substrate for breeding. | Mitigation Measure 1, 2, 3, 6, 7, 8, 12, 13, 14 |
| Reptiles | | | | | |
| Western pond turtle <i>Clemmys marmorata</i> | CSC | — | Yes | Occur along riparian areas and in stockponds and utilize upland areas surrounding aquatic resources for breeding. | Mitigation Measure 1, 2, 3, 4, 6, 7, 12, 13, 14, 16, 17 |
| San Joaquin coachwhip <i>Masticophis flagellum ruddocki</i> | CSC | — | Yes | Occurs in open grassland and uses burrows and vegetation for refugia. | Mitigation Measure 2, 3, 4, 6, 7, 15 |
| California horned lizard <i>Phrynosoma coronatum frontale</i> | CSC | — | Yes | Typically found in open sandy areas in deserts, chaparral, grassland. Often seen basking on asphalt roads or low rocks in the morning or afternoon. | Mitigation Measure 2, 3, 4, 6, 7, 15 |
| Birds | | | | | |
| Prairie falcon <i>Falco mexicanus</i> | CSC | MBTA | Yes | Breed in rock outcrops and forage on grasslands throughout eastern Alameda County. | Mitigation Measure 4, 8, 9, 15 |
| American peregrine falcon <i>Falco peregrinus anatum</i> | SE, FP | FD, MBTA | Yes, species is fully protected, take of individuals not allowed | Breed in rock outcrops and forage on grasslands throughout eastern Alameda County. | Mitigation Measure 8, 9, 15 |
| California clapper rail <i>Rallus longirostris obsoletus</i> | SE, FP | FE, MBTA | No, projects will occur outside of current range | - | - |
| Bald eagle <i>Haliaeetus leucocephalus</i> | SE/ FP | FD, BGPA, MBTA | Yes, species is fully protected, take of individuals not allowed | Some breeding pairs occur near reservoirs in the County and utilize large bodies of water for feeding. | Mitigation Measure 2, 8, 9, 12 |
| Sharp-shinned hawk <i>Accipiter striatus</i> | CSC | MBTA | Yes | Forage throughout the woodlands, riparian and urban areas of Alameda County. Utilize trees for roosting and nesting. | Mitigation Measure 2, 8, 9, 12 |

Table 1. Alameda County Non-Covered Special Status Wildlife Species

| Species | Status ^a | | Potential to Occur | Discussion of Occurrences in Alameda County | Applicable Avoidance and Minimization Measures |
|---|---------------------|------------|--|---|--|
| | State | Federal | | | |
| Cooper's hawk <i>Accipiter cooperii</i> | CSC | MBTA | Yes | Forage throughout the woodlands, riparian and urban areas of Alameda County. Utilize trees for roosting and nesting. | Mitigation Measure 2, 8, 9, 12 |
| Golden eagle <i>Aquila chrysaetos</i> | CSC/ FP | BGPA, MBTA | Yes | Eastern Alameda County is a important source population for the region. | Mitigation Measure 4, 8, 9 |
| Northern harrier <i>Circus cyaneus</i> | CSC | MBTA | Yes | Forage throughout the woodlands, riparian and urban areas of Alameda County. Utilize low growing bush/scrub habitat for roosting and nesting. | Mitigation Measure 2, 4, 8, 9/10, 12 |
| Ferruginous hawk <i>Buteo regalis</i> | CSC | MBTA | Yes | Primarily in Alameda County during spring and fall migration. Utilize grasslands for foraging and roosting. | Mitigation Measure 4, 8, 9 |
| Swainson's hawk <i>Buteo swainsoni</i> | ST | MBTA | Yes | Primarily in Alameda County during spring and fall migration. Utilize grasslands for foraging and roosting. | Mitigation Measure 4, 8, 9 |
| California black rail <i>Laterallus jamaicensis coturniculus</i> | ST/ FP | MBTA | Yes, species is fully protected, take of individuals not allowed | Potential to utilize inland freshwater wetlands although little is known about their distribution. | Mitigation Measure 2, 9/10, 12 |
| Western snowy plover <i>Charadrius alexandrinus nivosus</i> | CSC | FT, MBTA | No, projects will occur outside of current range | - | - |
| Black skimmer <i>Rynchops niger</i> (nesting colony) | CSC | MBTA | No, projects will occur outside of current range | - | - |
| California least tern <i>Sterna antillarum (albifrons)browni</i> (nesting colony) | SE/ FP | FE, MBTA | No, projects will occur outside of current range | - | - |
| California brown pelican (nesting colony) <i>Pelecanus occidentalis californicus</i> | SE/ FP | FPD, MBTA | No, projects will occur outside of current range | - | - |
| Double-crested cormorant <i>Phalacrocorax auritus</i> (rookery site) | CSC | MBTA | No, projects will occur outside of current range | - | - |
| California horned lark <i>Eremophila alperstris actia</i> | CSC | MBTA | Yes | Occurs throughout grasslands in Alameda County and utilizes them for foraging and breeding. | Mitigation Measure 3, 6, 10 |
| Loggerhead shrike <i>Lanius ludovicianus</i> | CSC | MBTA | Yes | Occurs throughout grasslands in Alameda County and utilizes them for foraging and breeding. | Mitigation Measure 2, 6, 8, 9 |

Table 1. Alameda County Non-Covered Special Status Wildlife Species

| Species | Status ^a | | Potential to Occur | Discussion of Occurrences in Alameda County | Applicable Avoidance and Minimization Measures |
|--|---------------------|---------|--|---|---|
| | State | Federal | | | |
| White-tailed kite <i>Elanus leucurus</i> | FP | MBTA | Yes, species is fully protected, take of individuals not allowed | Occurs throughout grasslands in Alameda County and utilizes them for foraging. Utilizes trees for roosting and breeding. | Mitigation Measure 2, 4, 8, 9, 12 |
| Western burrowing owl <i>Athene cunicularia hypugea</i> | CSC | MBTA | Yes | Occurs through grasslands in Alameda County and often on the urban-rural fringe. Utilizes underground burrows for roosting and breeding. | Mitigation Measure 2, 3, 4, 5, 8, 10, 15 |
| Bank swallow <i>Riparia riparia</i> | ST | MBTA | Yes | Primarily occurs in nesting colonies along riparian corridors that have vertical banks or bluffs that are prone to erosion. Large breeding populations are not known in Alameda County. | Mitigation Measure 2, 3, 8, 9, 12 |
| Salt marsh common yellowthroat (= San Francisco yellowthroat) <i>Geothlypis trichas sinuosa</i> | CSC | MBTA | No, projects will occur outside of current range | - | - |
| Tricolored blackbird <i>Agelaius tricolor</i> | CSC | MBTA | Yes | Primarily occur in freshwater marshes dominated by cattails and bullrushes. They can be found along riparian corridors, wetlands and stockponds in Alameda County. | Mitigation Measure 2, 3, 6, 8, 9, 12, Seasonal limitations found in Mitigation Measure 17 |
| Yellow warbler <i>Dendroica petechia brewsteri</i> (nesting) | CSC | MBTA | Yes | Forage and breed along riparian habitat in Alameda County. | Mitigation Measure 2, 3, 6, 8, 9/10, 11 |
| Alameda (South Bay) song sparrow <i>Melospiza melodia pusillula</i> | CSC | MBTA | No, projects will occur outside of current range | - | - |
| Mammals | | | | | |
| Alameda Island mole <i>Scapanus latimanus parvus</i> | CSC | — | No, projects will occur outside of current range | - | - |
| Salt marsh vagrant (wandering) shrew <i>Sorex vagrans halicoetes</i> | CSC | — | No, projects will occur outside of current range | - | - |
| Pacific Townsend's (=western) big-eared bat <i>Corynorhinus townsendii townsendii</i> | CSC | — | No, primary habitat consists of caves for roosting. | - | - |
| Greater western mastiff bat <i>Eumops perotis californicus</i> | CSC | — | No, primary habitat consists of cliff crevices for roosting. | - | - |

Table 1. Alameda County Non-Covered Special Status Wildlife Species

| Species | Status ^a | | Potential to Occur | Discussion of Occurrences in Alameda County | Applicable Avoidance and Minimization Measures |
|--|---------------------|---|--|--|--|
| | State | Federal | | | |
| Pallid bat <i>Antrozous pallidus</i> | CSC | — | Yes | Associated with oak woodlands and may roost in a variety of places including tree cavities, rock crevices and man made structures. | Mitigation Measure 2, 3, 6, 8, 11 |
| Big free-tailed bat <i>Nyctinomops macrotis</i> (= <i>Tadarida m.</i> , <i>T. molossa</i>) | CSC | — | No, projects will occur outside of current range | - | - |
| Hoary bat <i>Lasiurus cinereus</i> | CSC | — | Yes | Solitary and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches. Solitary females with young roost among tree foliage. Forage along streams or lake edges. | Mitigation Measure 2, 3, 6, 8, 11 |
| Silver-haired bat <i>Lasionycteris noctivagans</i> | CSC | — | Yes | Associated with coniferous or mixed coniferous and deciduous forest types and roost in tree cavities and small hollows. | Mitigation Measure 2, 3, 6, 8, 11 |
| San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i> | CSC | — | Yes | Occur primarily along riparian corridors. Build large stick houses that are utilized for breeding and cover. | Mitigation Measure 2, 3, 4, 6, 8, 12, 23 |
| Ringtail <i>Bassariscus astutus</i> | FP | — | Yes, species is fully protected, take of individuals not allowed | Occurs along riparian areas and mixed woodlands. Usually not found more than 1km (0.6 mi) from permanent water. Utilize hollow logs, rock recesses and burrows for breeding and cover. | |
| Salt marsh harvest mouse <i>Reithrodontomys raviventris</i> | E,FP | FE | No, projects will occur outside of current range | - | - |
| San Joaquin kit fox <i>Vulpes macrotis mutica</i> | ST | FE — | Yes, take is not authorized | The Altamont Hills provide potential breeding habitat. Primarily utilize grassland for denning and foraging. Dens are typically located in open areas with grass or scattered brush and in loose textured soils that are suitable for digging. | Mitigation Measure 1, 4, 6, 7, 19 |
| American badger <i>Taxidea taxus</i> | CSC | — | Yes | Occur throughout grasslands in Alameda County. Burrows are used for denning, escape and predation on burrowing rodents. | Mitigation Measure 1, 4 |
| Notes | | | | | |
| a. Status | | | | | |
| State Status | | Federal Status | | | |
| FP Fully Protected | | BGPA Bald Eagle and Golden Eagle Protection Act | | FPT Federally proposed for threatened listing | |
| SE State listed as endangered | | MBTA Migratory Bird Treaty Act | | FPD Federally proposed for delisting | |
| ST State listed as threatened | | FE Federally endangered | | FD Federally delisted | |
| CSC California special concern species | | FT Federally threatened | | SOC Species of Concern (National Marine Fisheries Service designation) | |
| | | FC Candidate for federal listing | | | |

Table 2. Alameda County Sensitive Plant Species

| Species | Status ^a | | | Potential to Occur on Habitats where Management Practices will occur within the Project Area |
|--|---------------------|-------|------|--|
| | Federal | State | CNPS | |
| Plants | | | | |
| <i>Allium sharsmithiae</i> Sharsmith's onion | — | — | 1B.3 | Occurs on serpentine soils, an excluded habitat type in the Program |
| <i>Amsinckia grandiflora</i> large-flowered fiddleneck | FE | SE | 1B.1 | Yes |
| <i>Amsinckia lunaris</i> bent-flowered fiddleneck | — | — | 1B.2 | Yes |
| <i>Arctostaphylos pallida</i> pallid manzanita | FT | SE | 1B.1 | Program excludes projects with known occurrences. |
| <i>Astragalus tener</i> var. tener alkali milk-vetch | — | — | 1B.2 | Occurs on alkaline soils, an excluded habitat type in the Program |
| <i>Atriplex cordulata</i> Heartscale | — | — | 1B.2 | Occurs on alkaline soils, an excluded habitat type in the Program |
| <i>Atriplex depressa</i> Brittlescale | — | — | 1B.2 | Occurs on alkaline soils, an excluded habitat type in the Program |
| <i>Atriplex joaquiniana</i> San Joaquin spearscale | — | — | 1B.2 | Occurs on alkaline soils, an excluded habitat type in the Program |
| <i>Balsamorhiza macrolepis</i> var. macrolepis big-scale balsamroot | — | — | 1B.2 | Occurs on serpentine soils, an excluded habitat type in the Program |
| <i>Blepharizonia plumosa</i> big tarplant | — | — | 1B.1 | Yes |
| <i>California macrophylla</i> round-leaved filaree | — | — | 1B.1 | Yes |
| <i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern | — | — | 1B.2 | Yes |
| <i>Campanula exigua</i> chaparral harebell | — | — | 1B.2 | Occurs usually on serpentine soils, an excluded habitat type in the Program |
| <i>Caulanthus lemmonii</i> Lemmon's jewelflower | — | — | 1B.2 | Presumed extirpated |
| <i>Centromadia parryi</i> ssp. congdonii Congdon's tarplant | — | — | 1B.2 | Yes |
| <i>Chorizanthe cuspidata</i> var. cuspidata San Francisco Bay spineflower | — | — | 1B.2 | Occurs in sandy, coastal scrub areas, low potential for projects to occur on this habitat type |
| <i>Chorizanthe robusta</i> var. robusta robust spineflower | FE | — | 1B.1 | Occurs in sandy, coastal scrub areas, low potential for projects to occur on this habitat type |

Table 2. Alameda County Sensitive Plant Species

| Species | Status ^a | | | Potential to Occur on Habitats where Management Practices will occur within the Project Area |
|---|---------------------|-------|------|---|
| | Federal | State | CNPS | |
| <i>Cirsium fontinale</i> var. campylon Mt. Hamilton fountain thistle | — | — | 1B.2 | Occurs in remote part of Alameda County. Serpentine habitats are excluded from the Program. |
| <i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons | — | — | 4.3 | Yes |
| <i>Clarkia franciscana</i> Presidio clarkia | FE | SE | 1B | Occurs on serpentine soils in grassland areas of the County, an excluded habitat type in the Program |
| <i>Cordylanthus mollis</i> ssp. <i>hispidus</i> hispid bird's-beak | — | — | 1B.1 | Occurs on alkaline soils, an excluded habitat type in the Program |
| <i>Cordylanthus palmatus</i> Palmate-bracted bird's-beak | FE | SE | 1B.1 | Occurs on alkaline soils, an excluded habitat type in the Program |
| <i>Coreopsis hamiltonii</i> Mt. Hamilton coreopsis | — | — | 1B.2 | Yes |
| <i>Deinandra bacigalupii</i> Livermore Valley tarplant | FE | — | 1B.1 | Occurs on alkaline soils, an excluded habitat type in the Program |
| <i>Delphinium californicum</i> ssp. <i>interius</i> Hospital Canyon larkspur | — | — | 1B.2 | Yes, although its only known occurrence is in a remote part of Alameda County |
| <i>Delphinium recurvatum</i> recurved larkspur | — | — | 1B.2 | Occurs on alkaline soils, an excluded habitat type in the Program |
| <i>Dirca occidentalis</i> western leatherwood | — | — | 1B.2 | Yes |
| <i>Eriogonum luteolum</i> var. <i>caninum</i> Tiburon buckwheat | — | — | 1B.2 | Occurs on serpentine soils in grassland areas of the County, an excluded habitat type in the Program |
| <i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's button-celery | — | — | 1B.1 | Yes |
| <i>Eschscholzia rhombipetala</i> diamond-petaled California poppy | — | — | 1B.1 | Yes |
| <i>Fritillaria falcata</i> talus fritillary | — | — | 1B.2 | Occurs on serpentine soils in grassland areas of the County, an excluded habitat type in the Program |
| <i>Fritillaria liliacea</i> fragrant fritillary | — | — | 1B.2 | Occurs on serpentine soils in grassland and woodland areas of the County, an excluded habitat type in the Program |
| <i>Helianthella castanea</i> Diablo helianthella | — | — | 1B.2 | Yes, although its only known occurrence is in a remote part of Alameda County |
| <i>Hoita strobilina</i> Loma Prieta hoita | — | — | 1B.1 | Usually occurs on serpentine soils, an excluded habitat type in the Program |
| <i>Holocarpha macradenia</i> Santa Cruz tarplant | FT | SE | 1B.1 | Presumed extirpated |

Table 2. Alameda County Sensitive Plant Species

| Species | Status ^a | | | Potential to Occur on Habitats where Management Practices will occur within the Project Area |
|---|---------------------|-------|------|--|
| | Federal | State | CNPS | |
| <i>Horkelia cuneata</i> ssp. sericea Kellogg's horkelia | — | — | 1B.1 | Presumed extirpated |
| <i>Lasthenia conjugens</i> Contra Costa goldfields | FE | — | 1B.1 | Yes |
| <i>Legenere limosa</i> Legenere | — | — | 1B.1 | Yes, although its only known occurrence is in a remote part of Alameda County |
| <i>Lilaeopsis masonii</i> Mason's lilaeopsis | — | SR | 1B.1 | Yes |
| <i>Navarretia prostrata</i> prostrate navarretia | — | — | 1B.1 | Yes |
| <i>Plagiobothrys chorisianus</i> var. chorisianus Choris' popcorn-flower | — | — | 1B.2 | Presumed extirpated |
| <i>Plagiobothrys diffusus</i> San Francisco popcorn-flower | — | SE | 1B.1 | Yes |
| <i>Plagiobothrys glaber</i> hairless popcorn-flower | — | — | 1A | Occurs on alkaline soils, an excluded habitat type in the Program, Presumed extirpated |
| <i>Sanicula maritima</i> adobe sanicle | — | SR | 1B.1 | Usually occurs on serpentine soils , an excluded habitat type in the Program, Presumed extirpated |
| <i>Senecio aphanactis</i> Chaparral ragwort | — | — | 2.2 | Yes |
| <i>Streptanthus albidus</i> ssp. peramoenus most beautiful jewel-flower | — | — | 1B.2 | Yes |
| <i>Suaeda californica</i> California seablite | FE | — | 1B.1 | Found in habitats along the bayfront, an excluded habitat type in the Program, Presumed extirpated |
| <i>Trifolium depauperatum</i> var. hydrophilum saline clover | — | — | 1B.2 | Yes |
| <i>Tropidocarpum capparideum</i> caper-fruited tropidocarpum | — | — | 1B.1 | Presumed extirpated |
| <p>Notes</p> <p>a. Status</p> <p>State Status</p> <p>SE State listed as endangered</p> <p>ST State listed as threatened</p> <p>SR State listed as rare</p> <p>Federal Status</p> <p>FE Federally endangered</p> <p>FT Federally threatened</p> <p>California Native Plant Society Ranking</p> <p>1A Presumed extinct in California</p> <p>1B Rare or endangered in California and elsewhere</p> <p>2 Rare or endangered in California but more common elsewhere</p> <p>Native Plant Threat Rankings</p> <p>.1 Seriously threatened in California (high degree/immediacy of threat)</p> <p>.2 Fairly threatened in California (moderate degree/immediacy of threat)</p> <p>.3 Not very threatened in California (low degree/immediacy of threats or no current threats known)</p> | | | | |

ALAMEDA COUNTY RESOURCE CONSERVATION DISTRICT
FINAL MITIGATED NEGATIVE DECLARATION
FOR
THE ALAMEDA COUNTY VOLUNTARY LOCAL PROGRAM

APPENDIX B

MITIGATE NEGATIVE DECLARATION
MITIGATION MONITORING AND REPORTING PLAN

| Mitigation Measure | Timing | Implementing Entity | Monitoring Entity |
|---|---------------------|------------------------|------------------------------|
| Biological Resources | | | |
| Mitigation Measure 1: Construction Hours. Ground disturbing activities shall occur only during daylight hours. | During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |
| Mitigation Measure 2: Minimization of Vegetation Disturbance. Projects shall be designed to minimize disturbance of existing vegetation near and on permanent and seasonal pools of streams, marshes, ponds, and shorelines with extensive emergent vegetation, or weedy vegetation. | During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |
| Mitigation Measure 3: No Plastic mono-filament matting. No plastic mono-filament erosion control matting shall be used for erosion control near riparian habitat, along the perimeter of ponds, or near other aquatic habitat. | During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |
| Mitigation Measure 4: Avoiding Animal Burrows. All animal burrows will be avoided to the maximum extent feasible. | During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |
| Mitigation Measure 5: Sediment Removal. Sediment removed during pond and/or stream restoration activities will not be placed where it can enter into waters of the state as per Fish and Game Code 5650. Sediment will not be placed over areas with concentrated ground squirrel burrows. | During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |
| Mitigation Measure 6: Capping structures. All construction pipes, culverts, or similar structures that are stored in the project area for one or more overnight periods shall be securely capped prior to storage or thoroughly inspected for animals if the pipe is subsequently buried, capped, or otherwise used or moved in any way. | During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |
| Mitigation Measure 7: Escape Ramps. All steep-walled trenches and/or holes deeper than 6-inches shall be covered at night or an escape ramp shall be placed in them to facilitate escape by any wildlife that may fall into the excavated area. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle of no greater than 30 degrees. Trenches and holes shall be checked every morning prior to construction activity. If a listed species is present in the trench or hole, a qualified biologist shall be notified immediately and no construction activity shall take place within 100 feet of the site until the animal is relocated. | During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |

| Mitigation Measure | Timing | Implementing Entity | Monitoring Entity |
|---|---|--|------------------------------|
| Biological Resources | | | |
| Mitigation Measure 8: Native Trees/Shrubs. Native tree removal and disturbance of native shrubs or woody perennials adjacent to streambanks or stream channels shall be avoided or minimized to the fullest extent possible. If riparian vegetation will be disturbed, it shall be replaced with similar species. | Project planning, During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |
| Mitigation Measure 9: Cavity/Tree Nesting Bird Surveys. If construction activities in riparian and other wooded areas are scheduled during the nesting season of protected raptors and migratory birds (February 15 to August 30) a survey must be conducted for nesting bird activity. If nesting birds are found within the area, a 50 foot buffer from passerines and 300 foot buffer from raptors will be implemented unless another buffer is authorized by the Department. | Pre-project surveys, During Construction | Qualified biologist, Cooperator, Contractor | ACRCD and/or it's contractor |
| Mitigation Measure 10: Ground Nesting Bird Surveys. If ground disturbance activities occur are scheduled during the nesting season of protected raptors and migratory birds (February 15 to August 30) a survey must be conducted for ground nesting bird activity. If nesting birds are found within the area, a 50 foot buffer from passerines and 300 foot buffer from raptors will be implemented unless another buffer is authorized by the Department. | Pre-project surveys, During Construction | Qualified biologist, Cooperator, Contractor | ACRCD and/or it's contractor |
| Mitigation Measure 11: Bat Surveys. If trimming or removal of trees is required within the project area, all trees subject to the impact will be surveyed for potential roost habitat (cavities, crevices) by a qualified biologist. If roosting bats are identified, tree/limb removal must occur during March 1 to April 15 or August 15 to October 15 unless otherwise authorized by the Department. | Pre-project surveys, During Construction | Qualified biologist, Cooperator, Contractor | ACRCD and/or it's contractor |
| Mitigation Measure 12: In Stream Restoration Seasonal Limitations. The general construction season for stream restoration shall be from June 15th to October 31st (or the first rainfall depositing more than 0.25 inch) to avoid impacts to breeding, feeding and sheltering of species found within the riparian corridor. | During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |

| Mitigation Measure | Timing | Implementing Entity | Monitoring Entity |
|---|--|------------------------|------------------------------|
| Biological Resources | | | |
| <p>Mitigation Measure 13: Equipment Staging and Storage. Staging and storage areas for equipment, materials, fuels, lubricants and solvents, shall be located outside of the stream channels and avoiding areas of concentrated ground squirrel burrows. Stationary equipment such as motors, pumps, generators, compressors and welders, located within or adjacent to streams or ponds shall be positioned over drip pans. Any equipment or vehicles driven and/or operated within or adjacent to streams must be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. Vehicles must be moved away from the stream prior to refueling and lubrication. The use or storage of petroleum-powered equipment shall be accomplished in a manner to prevent the release of petroleum materials into waters of the state in accordance with Fish and Game Code 5650.</p> | During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |
| <p>Mitigation Measure 14: Dewatering Activities. For any dewatering activities, water will be diverted by installation of a temporary barrier. All water above the barrier will be diverted downstream at an appropriate rate to maintain downstream flows during construction. A qualified biologist, with all necessary State permits shall relocate fish, amphibians and other native aquatic species within the project site. All reasonable efforts shall be made to capture and move all stranded aquatic life observed in the dewatered areas. Adequate water depth and channel width will be maintained at all times to allow for fish passage. When construction is completed, the barriers to flow will be removed in a manner that will allow flow to resume with the least disturbance possible to the substrate.</p> | During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |
| <p>Mitigation Measure 15: Rock Outcroppings. All rock outcroppings will be avoided.</p> | Pre-project surveys, During Construction | Cooperator, Contractor | ACRCD and/or it's contractor |

| Mitigation Measure | Timing | Implementing Entity | Monitoring Entity |
|---|--|---|------------------------------|
| Biological Resources | | | |
| <p>Mitigation Measure 16: Use of Herbicides. Use of herbicides will occur according to labeled directions and local, State, and Federal regulations and guidelines. Activities shall be limited to the dry period of the year and shall be restricted to periods of low rainfall (less than ¼” per 24 hour period), time periods with less than a 30% chance of rain, or dry weather periods. If rain is predicted based on the above criteria, within 72 hours during project activity, all activities shall cease until no further rain is forecast.</p> | During Construction, project follow up | Cooperator, Contractor | ACRCD and/or it's contractor |
| <p>Mitigation Measure 17: Implement Avoidance and Minimization Measures for Potential Impacts to California red-legged frog and California tiger salamander and their habitats.</p> | Pre-project surveys, During Construction | Qualified biologist, Cooperator, Contractor | ACRCD and/or it's contractor |
| <p>a. Restoration activities at ponds occupied by red-legged frogs and/or tiger salamanders will take place between August 31-October 31 (or the first rainfall of the season depositing more than 0.25 inch) when larval development of red-legged frogs and tiger salamanders is likely to be complete and ponds have less water present, unless restoration activities do not impact pond vegetation or water.</p> | | | |
| <p>b. A qualified biologist shall survey the work site immediately prior to construction activities. If red-legged frogs and/or tiger salamander adults, larvae, or eggs are found, the qualified biologist will determine if moving any of these life-stages is appropriate. In making this determination the qualified biologist shall consider if an appropriate relocation site exists. The qualified biologist shall be allowed sufficient time to move red-legged frogs and/or tiger salamanders from the work site before work activities begin.</p> | | | |
| <p>c. Bare hands shall be used to capture red-legged frogs and/or tiger salamanders. Qualified biologists will not use soaps, oils, creams, lotions, repellents, or solvents of any sort on their hands within two hours before and during periods when they are capturing and relocating individuals. To avoid transferring disease or pathogens of handling of the amphibians, qualified biologists will follow the Declining Amphibian Populations Task Force’s “Code of Practice.”</p> | | | |
| <p>d. Only qualified biologists will capture, handle, and relocate red-legged frogs and tiger salamanders.</p> | | | |

| Mitigation Measure | Timing | Implementing Entity | Monitoring Entity |
|---|--|-------------------------------|-------------------------------------|
| Biological Resources | | | |
| <p>e. A qualified biologist shall be present on site during all grading, dewatering, riparian or aquatic vegetation removal, in-stream construction activities, and relocation of red-legged frogs and/or tiger salamanders. After instruction of project personnel, relocation of red-legged frogs and/or tiger salamanders, and the activities listed above have been completed, the qualified biologist shall designate a person to monitor on-site compliance. The qualified biologist shall ensure that this individual receives the training specified in general protective measure 2 and is competent in the identification of red-legged frogs and/or tiger salamander.</p> | | | |
| <p>f. All burrows that provide upland habitat will be avoided to the maximum extent feasible. Areas with high concentrations of burrows will be flagged and avoided.</p> | | | |
| <p>g. Sediment removed during pond and/or stream restoration activities will not be placed where it can enter into red-legged frog and/or tiger salamander breeding pools; nor will it pass into any other waters of the state. Sediment will not be placed over areas with concentrated ground squirrel burrows.</p> | | | |
| <p>Mitigation Measure 18: Implement Avoidance and Minimization Measures for Potential Impacts to Alameda whipsnake and its habitat.</p> | <p>Project planning, During Construction</p> | <p>Cooperator, Contractor</p> | <p>ACRCD and/or it's contractor</p> |
| <p>a. All rock outcroppings will be avoided.</p> | | | |
| <p>b. No plastic mono-filament erosion control matting will be used for erosion control in whipsnake habitat.</p> | | | |
| <p>c. Disturbance in known or potential Alameda whipsnake habitat shall only take place between June 15- October 31, when the whipsnake is more active and less likely to be impacted.</p> | | | |

| Mitigation Measure | Timing | Implementing Entity | Monitoring Entity |
|--|--|--|---|
| Biological Resources | | | |
| <p>Mitigation Measure 19: Implement Avoidance and Minimization Measures for Potential Impacts to San Joaquin kit fox and its habitat.</p> | <p>Project planning, During Construction</p> | <p>Qualified biologist, Cooperator, Contractor</p> | <p>ACRCD and/or it's contractor</p> |
| <p>If a qualified biologist determines that there is potential for kit foxes or their dens to be present within the project area, the following avoidance measures will be conducted following measures and utilize the USFWS's Standardized Recommendations for Protection of the San Joaquin kit Fox Prior to or During Ground Disturbance, dated June 1999. Preconstruction surveys will be conducted using transect surveys such that 100% visual coverage of the Project Area is achieved.</p> <p>If a potential San Joaquin kit fox den is discovered or a fox is found in an "atypical" den such as a pipe or culvert, a 50-foot buffer shall be established around the den using flagging. If a known kit fox den (one that shows evidence of current use or is known to have been used in the past) is discovered, a buffer of at least 100 feet will be established around the den using fencing. If a natal den is discovered, a buffer of at least 200 feet will be established around the den using fencing. The Designated Representative shall immediately notify USFWS and the Department by telephone and e-mail if a known or natal kit fox den is discovered in or near the Project Area.</p> | | | |
| <p>Mitigation Measure 20: Avoid Special-Status Plants. If special-status plants are present at the project area, the project will be re-designed to avoid any special-status plants.</p> | <p>Project planning, Prior to Construction</p> | <p>ACRCD and/or it's contractor</p> | <p>ACRCD and/or it's contractor</p> |
| <p>Mitigation Measure 21: Implement Avoidance and Minimization Measures for Potential Impacts to Longhorn Fairy Shrimp and Vernal Pool Fairy Shrimp and their habitat. If vernal pools are present near the project area, a qualified biologist will stake and flag an exclusion zone prior to construction activities. The exclusion zone will encompass the maximum practicable distance from the worksite.</p> | <p>Project planning, During Construction</p> | <p>Qualified biologist, Cooperator, Contractor</p> | <p>ACRCD and/or it's contractor</p> |

| Mitigation Measure | Timing | Implementing Entity | Monitoring Entity |
|--|--|--|---------------------------------|
| Biological Resources | | | |
| <p>Mitigation Measure 22: Implement Avoidance and Minimization Measures for Potential Impacts to Callipe Silverspot Butterfly and its habitat. Preconstruction surveys for the larval food plants of callippe silverspot butterfly will be conducted during typical bloom season during a period from January through April. Any larval food plants found within 300 feet of the project footprint will be clearly marked with pin flagging. Flagged areas will be avoided to the maximum extent practicable and if possible, fenced for avoidance. In addition, orange fencing will be placed along the edge of the work area near any larval food plants to prevent workers and vehicles from entering this area.</p> | Project planning, During Construction | Qualified biologist, Cooperator, Contractor | ACRCD and/or it's contractor |
| <p>Mitigation Measure 23: Implement Avoidance and Minimization Measures for Potential Impacts to the San Francisco Dusky Footed Woodrat and its habitat. Preconstruction surveys will be conducted by a qualified biologist for projects that occur within woodrat habitat for the presence of middens. If middens are found within the breeding season (December 1 to August 31) exclusion fence will be installed to protect the middens from construction activities.</p> | Project planning, During Construction | Qualified biologist, Cooperator, Contractor | ACRCD and/or it's contractor |
| <p>Mitigation Measure 24: Applicable Permits. When applicable, landowners must comply with all state, federal and local regulations and may include one or more of the following permit consultations: the applicable region of the California Regional Water Quality Control Board 401 Compliance, the US Army Corps of Engineers 404 Compliance, US Fish and Wildlife Service Endangered Species Act compliance and/or Alameda County Grading Permits. For practices that may substantially modify a river, stream, or lake a separate notification to the Department is required by landowners proposing projects in these areas and must be completed in accordance with Section 1600 of the California Fish and Game Code.</p> | Prior to Construction | ACRCD and/or it's contractor | ACRCD and/or it's contractor |