

**UPPER PAJARO RIVER WATERSHED
PARTNERS IN RESTORATION
PERMIT COORDINATION PROGRAM**

**FINAL
INITIAL STUDY AND
MITIGATED NEGATIVE DECLARATION
IN COMPLIANCE WITH THE
CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

DECEMBER 15, 2008

TABLE OF CONTENTS

California Environmental Quality Act Requirements	iv
Final Mitigated Negative Declaration and Determination	iv
Initial Study Checklist Form	v
Determination	vi
<u>I. Program Description</u>	
A. Upper Pajaro River Watershed Partners in Restoration Permit Coordination Program	1
B. Permit Coordination Program Background	1
C. Program Partners	2
D. Regulatory Approval Process	4
Table 1. Regulatory Requirements and Approval Mechanisms	7
E. Implementation Period and Estimated Number of Projects	8
F. Program Area and Key Definitions	9
G. Excluded Areas	10
H. Conservation Practices	10
Table 2. Proposed Conservation Practices for UPRW PIR	10
Table 3. Disturbance Dimensions and Volumes for Conservation Practices	14
I. Conservation Planning Process	16
Table 4. NRCS 9-step Planning Process	17
<u>II. Environmental and Regulatory Setting</u>	
A. Watershed Descriptions	22
B. Topography, Geology and Climate	24
C. Biological Resources	25
D. Special Status Species	27
Table 5. Endangered and Threatened Plants and Animals Potentially Occurring In Program Area	28
Table 6. State Rare Plants Potentially Occurring in Program Area	29
Table 7. State Species of Special Concern Potentially Occurring in Program Area	30
E. Historic and Cultural Resources	32
F. Socioeconomics and Land Use	32
Table 8. 1990-2006 Population Growth in Program Area	33
G. Water Quality	34
Table 9. Clean Water Act Section 303(d) Impaired Waterbodies in Program Area	34
<u>III. Environmental Protection and Mitigation Measures</u>	
A. Permit Coordination Tiered Approach to Environmental Protection and Mitigation	38
Table 10. Environmental Protection and Mitigation Measures by Tier	39
Table 11. Practice-specific Environmental Protection and Mitigation Measures	58
B. General Environmental Protection and Mitigation Measures for Special Status Species	60
C. Species-specific Environmental Protection and Mitigation Measures	61
D. Monitoring and Reporting Plan	75

IV. Potential Environmental Impacts of the Program

A. Water Quality Benefits and Impacts	77
B. Impacts to Biological Resources	77
C. Impacts to Agriculture and Agricultural Land Use	78
D. Impacts to Public Services	79
E. Impacts to Population, Housing, and Urban Growth	79
F. Impacts to Traffic	79
G. Impacts from Geological Hazards and Site Alterations	80
H. Impacts from Hazardous Substances	81
I. Impacts to Air Quality and Ambient Sound Levels	81
J. Impacts to Aesthetics and Sky Darkness	81
K. Impacts to Mineral Resources	81
L. Cumulative Impacts	81
M. Mandatory Findings of Significance	83

V. Party Responsible for Preparation of the Initial Study

VI. Literature Cited

Appendices

86

Appendix A: NRCS Standards and Specifications for the Proposed Conservation Practices	
Appendix B: NRCS Planning Documents	
Appendix C: Draft List of Plant Species for Revegetation (under development)	
Appendix D: DFG Culvert Criteria for Fish Passage	
Appendix E: NMFS Guidelines for Salmonid Passage at Stream Crossings	
Appendix F: NMFS Fish Screening Criteria for Anadromous Salmonids	
Appendix G: Primer on Stream and River Protection for the Regulator and Program Manager	

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) REQUIREMENTS

The main objective of CEQA is to disclose to decision makers and the public the significant environmental effects of proposed activities and to require agencies to avoid or reduce the environmental effects by implementing feasible alternatives or mitigation measures. CEQA applies to all discretionary activities proposed to be carried out or approved by California public agencies, including state, regional, county, and local agencies, unless an exemption applies. CEQA also applies to private activities that require discretionary governmental approvals. Government actions that trigger CEQA requirements, including activities directly undertaken by a government agency and are defined as a *project* (or in this case, a *program* comprised of individual projects to be constructed during the implementation phase). The Upper Pajaro River Watershed (UPRW) Partners in Restoration Permit Coordination Program (Program) proposed by the San Benito Resource Conservation District (SBRCD), is a discretionary government activity and thus an action subject to CEQA.

The environmental document preparation and review should be coordinated in a timely fashion with the existing planning, review, and project approval processes being used by each public agency (CEQA secs. 15004(b)(2) and (c)). Public agencies shall not undertake actions concerning the proposed public project that would have a significant adverse effect, or limit the choice of alternatives or mitigation measures, before completion of CEQA compliance.

The *lead agency* in this Program, the SBRCD, has the principal responsibility for carrying out or approving the project, and therefore is also responsible for preparation of the CEQA documents. Following preliminary review, the SBRCD has determined that the proposed Program is not exempt from CEQA. To address all phases of project planning, implementation, and operation of the proposed Program, this initial study has been prepared to comply with CEQA. An initial study is neither intended nor required to include the level of detail included in an EIR (CEQA secs. 15063(a), 15063(b)(2)). It is the responsibility of the SBRCD to determine that the Program will not have significant environmental effects. If the SBRCD finds that this is the case, it will prepare a *mitigated negative declaration* instead of an EIR (CEQA secs. 15002(b), (f)(2)).

FINAL MITIGATED NEGATIVE DECLARATION

The SBRCD has determined that the Program, with the included environmental protection and mitigation measures, will not have significant environmental effects. This Final Mitigated Negative Declaration complies with Section 21064.5 of the California Public Resources Code, the California Environmental Quality Act (CEQA), and Article 6 of the State CEQA Guidelines (14 California Code of Regulations). The following Initial Study Checklist Form of potential environmental effects was completed in accordance with Section 15063(d) of the State CEQA Guidelines to determine if the proposed action could have any potentially significant effect on the physical environment, and if so, what mitigation measures would be imposed to reduce such impacts to a level that is less than significant.

An explanation is provided for all determinations in the attached Initial Study. A “No Impact” or “Less than Significant Impact” determination indicates that the proposed action would not have a significant effect on the physical environment for the specific environmental category.

Initial Study Checklist Form

Program Title	Upper Pajaro River Watershed Partners in Restoration Permit Coordination Program
Lead Agency’s Name and Address	San Benito Resource Conservation District 2337 Technology Parkway CA, Hollister CA 95023
Lead Agency Contact	Kellie Guerra (831) 637-4360 x101 kguerra@rcdsanbenito.org
Description	The Program provides permit and technical assistance to private agricultural and rural residential landowners seeking to undertake voluntary projects to control erosion and enhance habitat on their properties.
Location	Upper Pajaro River Watershed of San Benito and Southern Santa Clara Counties
Agencies Whose Approval is Required	U.S. Fish and Wildlife (FWS) National Oceanic and Atmospheric Administration Fisheries Service (NMFS) U.S. Army Corps of Engineers (Corps) California Department of Fish and Game (DFG) Central Coast Regional Water Quality Control Board (CCRWQCB) Counties of San Benito and Santa Clara

The environmental factors checked below would be potentially affected by this Program, involving at least one impact that is a “Potentially Significant Impact” as indicated in the attached Initial Study. No checked boxes indicate that no Potentially Significant Impacts are expected.

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

DETERMINATION

On the basis of the attached Initial Study:

- I find that the proposed Program COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION has been prepared.
- I find that although the proposed Program could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Program have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION has been prepared.
- I find that the proposed Program MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.
- I find that the proposed Program 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 EIR is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed Program 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 Program, nothing further is required.

San Benito Resource Conservation District
President of the Board of Directors

Date

I. PROGRAM DESCRIPTION

A. Upper Pajaro River Watershed Partners in Restoration Permit Coordination Program

The San Benito Resource Conservation District (SBRCDD) and the Loma Prieta Resource Conservation District (LPRCD) (collectively referred to as “RCDs”) propose to develop and implement the Partners in Restoration Permit Coordination Program (Program) in the Upper Pajaro River Watershed (UPRW). The proposed Program would enable implementation of relatively small restoration projects designed to improve water quality and fish/wildlife habitat in San Benito and southern Santa Clara counties. The Program offers agricultural and other rural landowners, and local partners, the opportunity to satisfy all necessary permitting requirements without the delays associated with applying for individual permits from each of the federal, State and local regulatory agencies. This RCD Program is supported by the USDA-Natural Resource Conservation Service (NRCS) through funding, technical practice standards, the conservation planning process, and site-specific technical assistance, as needed. Initial funding for development of the Program was provided by the State Water Resource Control Board. Implementation of the Program’s first projects is expected to occur in 2009, continuing through the fall of 2018. The estimated number of individual projects to be implemented under the Program is five per year for the first five years, from 2009 through 2013, and 10 each year for the second five years, from 2014 through 2018, assuming growth in landowner interest, as well as Program staff and funding resources. An estimated total of up to 75 projects would be constructed during the Program under this proposal. Landowners working with the RCDs/NRCS on projects that are not covered under this Program will continue to seek permits on a project-by-project basis.

The Program includes 15 conservation practices, which may be installed as erosion control and habitat enhancement projects on the properties of voluntary Program participants, or *cooperators*. All projects will be consistent with the conservation practices described in this document, with the Program’s environmental protection measures, and with the permit conditions issued by federal, State and local authorizing agencies. The conservation practices and environmental protection measures have been categorized in a tiered impact matrix, an approach developed by the Central Coast Regional Water Quality Control Board (CCRWQCB). The matrix provides a framework of environmental protection measures that increase in complexity with a practice's or project's increasing impact.

Projects constructed under the Program will be small-scale, consisting primarily of stabilization of eroding streambanks, streambank fencing to limit cattle access to stream channels, construction of off-channel sediment basins and irrigation facilities, invasive plant removal and critical area planting to revegetate degraded sites and other erosion control and habitat enhancement activities.

B. Permit Coordination Program Background

The NRCS and Sustainable Conservation, a non-profit California conservation organization, developed the PIR program in 1998 in response to the need to alleviate permitting challenges associated with small, environmentally beneficial erosion control projects for landowners in

Monterey County's Elkhorn Slough watershed. The pilot program was developed to more efficiently address resource problems in the watershed, notably severe erosion and soil loss on farms and resulting sedimentation of the ecologically sensitive slough. From 1998-2003, the number and quality of implemented erosion control projects significantly increased. More than 57,000 tons of sediment was prevented from entering Elkhorn Slough, its tributaries and the Monterey Bay National Marine Sanctuary. More than two miles of stream bank and channel were restored or revegetated and 18 sediment and water control basins were constructed. In addition, the program brought the NRCS into cooperation with many farmers who had not previously expressed interest in on-farm conservation.

Since that time, permit coordination programs have been completed for seven additional watersheds or counties in California: Morro Bay in San Luis Obispo County (2002), Navarro River in Mendocino County (2002), Salinas River in Monterey County (2003), Coastal Marin County Watersheds (2004), Santa Cruz County (2005), Alameda County (2006) and northern San Diego County (2007). As of early 2008, additional programs were nearing completion or under development in Humboldt, Mendocino, San Luis Obispo, Santa Barbara, Yolo and west Lake Counties, in addition to this Program. After nine years of implementation (through 2006), more than 100 projects have been completed, and permit coordination programs are in place in 61 California watersheds.

These programs have enabled a wide range of efforts to improve water quality and aquatic habitat and have helped build broader partnerships with the agricultural community and private landowners for conservation improvements. The permit coordination program for the UPRW will be based on these successful models, but tailored to the resource conditions and needs, and the culture, present in San Benito and southern Santa Clara Counties.

C. Program Partners

The SBRCDC is proposing this Program with NRCS as a technical partner. The NRCS will assist Program participants by providing technical advice and practice requirements that assist landowners in complying with all environmental protection and mitigation measures and federal, State and local agencies' permit conditions. NRCS is the lead agency for the purpose of meeting federal requirements triggered by projects that will be implemented with NRCS federal funding.

The NRCS, formerly known as the Soil Conservation Service, is a federal agency within the United States Department of Agriculture that provides technical and cost-share assistance to private landowners. NRCS works independently and in partnership with RCDs to develop conservation plans uniquely suited to each landowner's management objectives and environmental circumstances. NRCS builds on the strength of more than 60 years of natural resource protection on private lands. The agency works closely with local RCDs and other agencies, organizations and individuals to prioritize conservation goals, work with people on the land, and provide technical and financial assistance through provisions of the Farm Bill.

NRCS employees have expertise and field experience to help land users address their natural resource concerns and maintain and improve their land's economic viability. Employees bring a variety of scientific and technical skills to support resource planning, including soil science,

agronomy, biology, agroecology, range conservation, engineering, water quality, cultural resources, and economics. The technical support provided by the NRCS to agricultural operators is based on conservation plans designed to sustain and improve soil, water, fish, wildlife and plant communities. Agency staff utilizes a watershed approach to conservation based on ecological principles and resource science. The enhancement of natural systems is achieved through installation of the conservation practices that meet established Field Office Technical Guide (FOTG) standards and specifications.

Farmers and ranchers are stewards of much of the nation's privately owned land. With technical experience and landowner relationships, the NRCS is in a unique position to provide dependable technical information to landowners to ensure the conservation of natural resources for current and future generations. NRCS staff provides services to landowners in San Benito County in partnership with the SBRCDC, operating out of a Service Center in Hollister, and has a "satellite" office in Gilroy, in partnership with the LPRCDD, to provide services to landowners in Santa Clara County. NRCS resources are also available through the agency's Salinas Area Office in Monterey County and State Office in Davis, California. The agency is available to provide resource information and technical information including:

1. Soil resource data through the Soil Surveys;
2. Standards and specifications to sustain and improve rare and endangered species and reduce erosion and water quality problems on range and agricultural lands;
3. A plant material program that introduces new ways to use native and introduced plants to protect and restore natural systems; and
4. Techniques for assessing and predicting erosion, agricultural nonpoint-source water pollution, and the effects of agricultural practices and management decisions on farm and ranch operations.

RCDs are Special Districts organized under Division 9 of the California Public Resources Code to manage and conduct soil and water conservation, erosion control and prevention, and erosion stabilization projects. RCDs have no enforcement or regulatory functions. They work closely with the NRCS in responding to soil, water and wildlife management needs of local land users. RCDs are managed by non-salaried directors who reside within the District and are familiar with local resource issues.

The SBRCDC has been working with local landowners in San Benito County on conservation improvements since 1961. The District is currently managed by seven Directors who are appointed by the San Benito County Board of Supervisors. Established in 1942, the LPRCDD was created to develop and administer a program of soil, water and related resource conservation in Southern Santa Clara County. Since its creation, the District has grown to encompass more than 220,000 acres and is currently managed by five Directors who are appointed by the Santa Clara County Board of Supervisors.

The SBRCDC and LPRCDD enacted a Memorandum of Agreement on July 21, 2008, which outlines the roles and capacity of each district in relation to the UPRW Program. Pursuant to the California Environmental Quality Act (CEQA), the MOA designates the SBRCDC as the lead agency in the preparation of CEQA environmental documents for the Program, as well as other

permit applications and Program materials, with input from a member of the LPRCD Board of Directors. The MOA allows the SBRCDD, in cooperation with the NRCS, to plan and implement erosion control, fish/wildlife habitat enhancement, and other environmentally beneficial projects to help landowners protect, conserve and restore natural resources within the LPRCD's area of influence. The MOA designates that the LPRCD will provide voluntary assistance with recruitment of landowner participants and identification of potential project sites during the project implementation phase of the Program, once all permits and authorizations are in place.

Based on the MOA, the SBRCDD will be the lead RCD in the development and implementation of the Program. As such, the SBRCDD is mentioned throughout the remainder of this document, without further mention of the LPRCD.

Sustainable Conservation is a California non-profit organization founded in 1992, which partners with business, agriculture and government leaders to find practical ways that the private sector can protect clean air, clean water and healthy ecosystems.

D. Regulatory Approval Process

NRCS and SBRCDD are working with the participating regulatory agencies to determine the optimal mechanism to expedite the permit application review and issuance process for the proposed Program. NRCS/SBRCDD have been discussing permit conditions with each of the regulatory agencies and are striving for consistency among the agency permits and authorizations to ensure that permit conditions are feasible for landowners participating in the Program. SBRCDD serves as the lead agency for administration of the Program and for obtaining authorization from State and county permitting agencies, while NRCS serves as the lead agency for NMFS and FWS to ensure that the mandatory conditions contained in each biological opinion are fully implemented for NRCS-funded projects. This process, including the final authorizations and approvals, ensures that permit conditions are feasible for Program implementation, and that the Program is consistent with agency mandates. The regulatory approval mechanisms anticipated from each agency are summarized in Table 1 below.

U.S. Army Corps of Engineers (Corps): Regional General Permit

Section 404 of the CWA requires a permit from the Corps for discharge of dredged or fill material into all waters of the United States, including wetlands. Such activities include the modification of banks, filling of wetlands, and alteration of creeks or other waterways. Similar activities with the potential to impact navigable waters of the United States require a permit under Section 10 of the Rivers and Harbors Act of 1899. It is expected that the Corps will issue the SBRCDD a new Regional General Permit (RGP) for the Program, as occurred in recent years when the Santa Cruz County and Alameda County PIR programs were authorized. An RGP is written when the Corps permit needs to be customized to specifically authorize proposed activities that have no more than minimal impacts either individually or cumulatively on the aquatic environment at the regional level within a certain geographical area, and generally has a 5- or 10-year duration.

U.S. Fish and Wildlife Service and NOAA National Marine Fisheries Service: ESA Section 7 Consultation

An interagency consultation with the FWS and NMFS is required when a project is proposed that may affect listed terrestrial, freshwater or anadromous species under FWS or NMFS jurisdiction. Federal agencies engage in a cooperative process provided for in Section (7)(a)(2) of the ESA, which requires consultation for any action that is “authorized, funded, or carried out” by a federal agency that “may affect” listed species. Section 7 Consultation with FWS and NMFS has been initiated by the NRCS, the lead federal agency for NRCS-funded projects.¹ The consultation process will conclude with issuance by each agency of BOs for the Program, authorizing take of listed species for conservation practices which are likely to adversely affect listed species or adversely modify their habitat. The BO will state or prescribe measures for protecting listed species and provide for incidental take of listed species during project construction. For conservation practices which may affect but are not likely to adversely affect listed species and their habitat, concurrence letters will be issued by each agency.

Central Coast Regional Water Quality Control Board (CCRWQCB): CWA Section 401 Certification and National Pollution Discharge Elimination System (NPDES) Compliance, CEQA Responsible Agency

Section 401 of the federal Clean Water Act gives the Central Coast RWQCB the authority to issue, waive, or deny certification that a proposed activity is in conformance with state water-quality standards. Alternatively, under the state Porter-Cologne Act, the RWQCB has the authority to issue a waste discharge requirement specifying the concentration or load limits allowable for a particular activity. A need for a Section 401 certification or waste discharge requirement is triggered by the potential for an activity to result in the release of waste material into a waterway. Although the net result of the practices will be the reduction of sediment delivery to streams, the implementation of these practices may result in short-term, minor discharges of fine sediments to waterways. For example, grading activities, stream bank restoration, preparations for planting, and other construction activities may lead to a small increase in erosion potential at some of the work sites. RWQCB section 401 certification is required by the Corps to be complete before issuance of its section 404 permit can occur.

Under the Clean Water Act, the NPDES provides regulation for stormwater discharges associated with construction activities greater than 1 acre in size. Some projects constructed under the Program may exceed this threshold. Consequently, SBRCD must file a Notice of Intent to Comply (NOI) with the State General Construction Permit held by the State Water Resources Control Board for all such projects, and an individual Notice of Termination (NOT) for each project exceeding the 1-acre threshold when the work is completed and the work site stabilized. The State General Construction Permit also requires a Storm Water Pollution Prevention Plan (SWPPP) be prepared and implemented for all projects exceeding this size threshold.

CCRWQCB is a Responsible Agency under CEQA. In acting on whatever aspect of the project requires its approval, the Responsible Agency must rely on the Lead Agency's (SBRCD) environmental document to prepare and issue its own findings regarding the Program (CEQA

¹ The NRCS determined in mid 2008 that its federal action for the purposes of interagency consultation under section 7 of the ESA includes only cost-share funding for projects constructed under the Program, but not technical assistance or other actions associated with the Program. As a result, NRCS' consultation with FWS and NMFS, and the resulting BOs and informal consultation letters of concurrence, will be limited to implementation of NRCS-cost share projects only.

Guidelines, sections 15096 and 15381). For example, CCRWQCB takes on the role of a Responsible Agency when a Lead Agency requires a section 401 water quality certification for the project or program. CCRWQCB must rely on the SBRCD's environmental document prepared for the Program to make a finding and decide whether or not to issue water quality certification.

California Department of Fish and Game (DFG): Section 1601 Streambed Alteration Agreement, CESA Compliance and Section 2081 Incidental Take Permit, CEQA Responsible Agency

Section 1600 of the California Fish and Game Code requires a project proponent proposing to carry out an action in a river, creek or stream to notify DFG, which is then responsible for determining if there is a need for a Streambed Alteration Agreement. The Agreement is a contract between the applicant and the DFG documenting what activities can occur within the riparian zone and stream course. Governmental agency actions are reviewed under Section 1601, and private party actions are reviewed under Section 1603. For previous PIR programs reviewed by DFG, Memoranda of Understanding and Template 1602 Streambed Alteration Agreements designed to simplify the project approval process were completed, followed by Individual Agreements using the Template Agreement.

Section 2080 of the California Fish and Game Code prohibits take of any State-listed threatened or endangered species, and section 2081 requires the SBRCD/NRCS to obtain an Incidental Take Permit if any take of State-listed species will occur. However, due to the Program's extensive environmental protection and mitigation measures, including general and species-specific protection measures, the SBRCD expects to avoid take of State-listed species. If a situation arises during project planning or project construction in which take could potentially occur, DFG will be consulted and a section 2081 Incidental Take Permit for the individual project applied for.

Sections 3511, 4700, 5050 and 5515 of the California Fish and Game Code prohibit take of State Fully Protected Species. DFG cannot authorize take of any Fully Protected Species.

DFG is a Responsible Agency under CEQA. In acting on whatever aspect of the project requires its approval, the Responsible Agency (DFG) must rely on the Lead Agency's (SBRCD) environmental document to prepare and issue its own findings regarding the Program (CEQA Guidelines, sections 15096 and 15381). For example, DFG takes on the role of a Responsible Agency when a Lead Agency requires a section 1600 Streambed Alteration Agreement or a 2081 Incidental Take Permit for the taking of threatened and endangered species incidental to a project. DFG must rely on the SBRCD's environmental document prepared for the Program to make a finding and decide whether or not to issue an Incidental Take Permit.

California State Historic Preservation Office (SHPO): SHPO Certification Letter

Cultural resources compliance is required under sections 106 and 110 of the National Historic Preservation Act (NHPA), which require federal agencies to identify and assess the effects of their actions on cultural and historic resources. All projects implemented under the Program funded by NRCS will be subject to an NRCS assessment to ensure potential impacts to cultural resources are minimized. NRCS procedures comply with the State level agreement with the California State Historic Preservation Office (SHPO). The agreement creates a process for

assessing potential impacts, reviewing local, state and national records and literature, and consulting with tribal authorities, historical societies and other interested parties.

County of San Benito: Permits to Comply with County Ordinances

Grading, Drainage and Erosion Control Ordinance 708

The purpose of this chapter is to safeguard public health, property and general welfare by regulating grading, drainage and erosion control on private and public property and requiring grading, erosion and drainage control plans which prevent water pollution and sedimentation of the county’s water resources.

Encroachment Ordinance

A permit is required for any project that will excavate, construct and/or otherwise encroach upon a County road right-of-way.

Floodplain Management Ordinance (currently being updated)

Consistent with the State Department of Water Resources floodplain protection guidance, County regulations are intended to minimize effects within the floodplain, such as increased exposure of people and property to floods, increased potential for off-site flooding, and modification of floodplain ecosystems.

County of Santa Clara: Permits to Comply with County Ordinances

Grading

This chapter is enacted for the purpose of establishing minimum requirements for all grading work; for the purpose of establishing the procedures by which these requirements may be enforced; and for the purpose of protecting surface water quality by prevention of soil erosion and the transport of soil sediments, which result from improper grading operations.

Tree Protection

The County of Santa Clara recognizes the substantial economic, environmental and aesthetic importance of its tree population and that the preservation of certain trees on private and public property is necessary to establish and maintain the optimum amount of tree cover in the county.

Riparian Protection

Regulations intended to provide for the protection and potential enhancement of riparian habitat along designated streams in the County.

Table 1. Regulatory Requirements and Approval Mechanisms		
Agency	Permit Required	Approval Mechanism
U.S. Army Corps of Engineers	Clean Water Act (CWA) section 404 permit	Regional General Permit (RGP)
NOAA Fisheries	ESA section 7 interagency consultation	Programmatic Biological Opinion (BO) and informal consultation for practices not likely to adversely affect listed species.

U.S. Fish and Wildlife Service	ESA section 7 interagency consultation	For NRCS-funded projects only: Programmatic BO and informal consultation for practices not likely to adversely affect listed species.
	Section 10 conservation plan	For RCD-funded projects: Possible future individual HCP for RCD-funded projects.
Central Coast Regional Water Quality Control Board	CWA section 401 Water Quality Certification	Water quality certification waiver for program with conditions.
State Water Resource Control Board	NPDES General Permit for Storm Water Discharge (projects greater than 1 acre in size)	NPDES permit application NOI, NOT and SWPPP for projects > 1 acre
	CEQA Responsible Agency Authority	CEQA review and Notice of Determination
California Department of Fish and Game	Fish and Game Code section 1601 Streambed Alteration Agreement, CESA compliance	Memorandum of Understanding and Template Streambed Alteration Agreement, CESA compliance notification
	CEQA Responsible Agency Authority	CEQA review and Notice of Determination
California State Historic Preservation Office (SHPO)	National Historic Preservation Act compliance	SHPO certification letter for projects with NRCS funding nexus.
	National Historic Preservation Act compliance	Individual consultation with SHPO and approval letters for projects for RCD-funded projects.
San Benito County	Grading, erosion control and drainage ordinance Encroachment ordinance Floodplain management ordinance (currently being updated)	Master permit for compliance with grading, erosion control, drainage and floodplain management ordinances
Santa Clara County	Grading, tree preservation and riparian protection ordinances	Individual project permits for grading, tree removal and riparian protection

E. Implementation Period and Estimated Number of Projects to be Constructed

The SBRCD proposes that the Program be permitted for 10 years, with implementation of the Program's first projects in 2009, continuing through the fall of 2018. A five-year Program

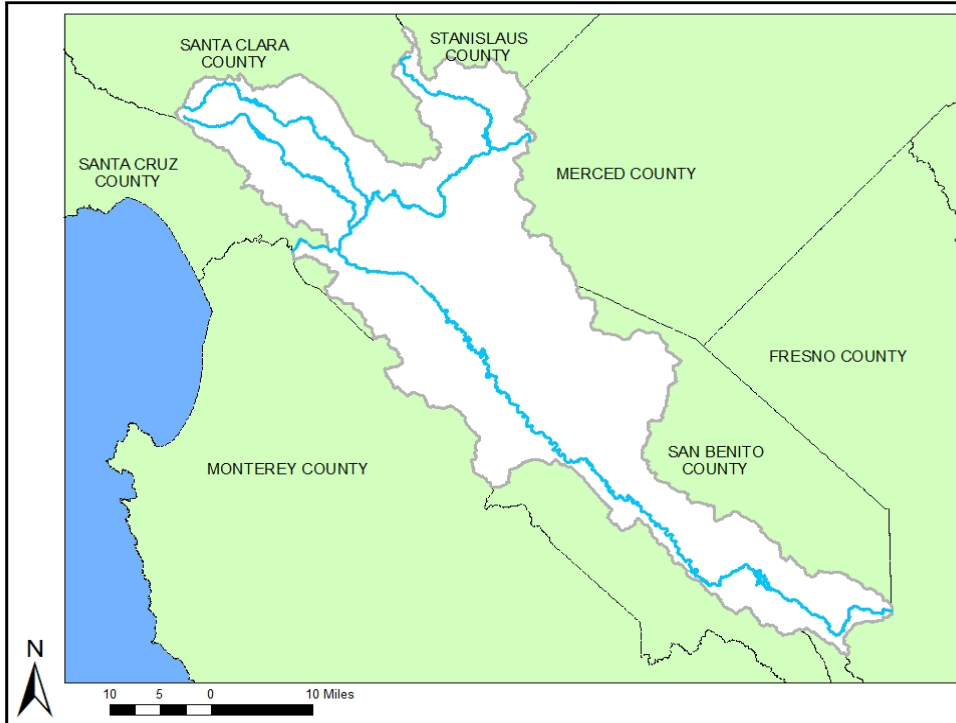
evaluation and assessment report will be produced and distributed after the completion of the 2013 construction season. The estimated number of individual projects to be implemented under the Program is up to 5 per year for the first five years, from 2009 through 2013, and up to 10 each year for the second five years, from 2014 through 2018. An estimated total of up to 75 projects may be constructed during the Program. Landowners working with the SBRCD/NRCS on projects that are not covered under this Program will continue to seek permits on a project-by-project basis.

F. Program Area and Key Definitions

The *Program area* comprises the entire UPRW with the downstream extent ending at Chittenden Pass, in San Benito and southern Santa Clara Counties, California. Some of the sub-watersheds include Uvas and Llagas Creeks in southern Santa Clara County, and the mainstem Pajaro River, San Benito River, Pacheco Creek, Tequisquita Slough, Arroyo dos Picachos, Santa Ana Creek and Tres Pinos Creek in San Benito County (see Figure 1 below and further explanation in Watershed Description, Section II). The environmental and regulatory setting is explained in detail in Section III. During the Program's implementation phase, *project areas* are comprised of the area affected by each individual project, including the construction site, all access areas and any stream habitat downstream of the site affected by the work activities. The *work site* is limited to the immediate area affected by construction and practice installation.

The *riparian zone* or *riparian corridor* is defined for the Program as the streambed, streambanks and banktop extending to the dripline of banktop vegetation; if no riparian dripline exists, the RCDs and/or NRCS will evaluate nearby vegetated sites to determine an appropriate dripline width.

Figure 1. Program Area



G. Excluded Areas

Due to potential impacts to sensitive species or habitats, work in the following areas or habitat types will not be included in the Program:

- Vernal pools
- Alkali sinks

SBRC/D/NRCS staff making specialized habitat determinations will receive training (acceptable to FWS, NMFS and DFG) to make such determinations, or the determinations will be made by other qualified individuals. Staff or the qualified individuals will conduct a reconnaissance-level survey of a proposed project site to determine if vernal pools or alkali sinks are present. If either of these rare habitats is found in the work area, the proposed project will be redesigned to avoid the rare habitat, or it will not be included in the Program.

H. Conservation Practices

The Program has been tailored to the resource conditions and needs present in San Benito and southern Santa Clara Counties. The conservation practices selected for this Program are designed to reduce erosion and enhance habitat on farms, ranches and other rural properties. The conservation practices have a demonstrated net environmental benefit, are usually installed in and around waterways and adjacent uplands, and include dimensional limitations that ensure all proposed projects will be relatively small in size.

Fifteen conservation practices, selected from the NRCS FOTG, have been presented to all the regulatory agencies that have jurisdiction within the Program area. The FOTG practice standards and specifications have been refined by the Hollister NRCS office and SBRCD for this Program (Table 1). The FOTG standards and specifications for each proposed practice are included in Appendix A. Detailed environmental protection and mitigation measures have been submitted to federal, State and local regulatory agencies with jurisdiction over the Program for permitting and approval. The agencies will review the Program and provide comments to the SBRCD. After revisions that are acceptable to both the regulatory agencies and SBRCD/NRCS, the agencies will provide *programmatic* or pre-approved permits or authorizations for a specified period of time, to the SBRCD/NRCS. Each conservation project implemented under the Program will be monitored by the SBRCD/NRCS.

Table 2. Proposed Conservation Practices for UPRW PIR

CONSERVATION PRACTICE (FOTG PRACTICE CODE)	PROPOSED IMPACT TIER (see section II)	PURPOSE AND COMMON USES
Access Road (560)	I (if in upland areas with no impacts to special status species/habitat) or III (riparian work and/or potential impacts to special status species/habitat)	<p>To provide a fixed route for vehicular travel for resource activities involving the management of timber, livestock, agriculture and other uses, while controlling runoff to prevent erosion and maintain or improve water quality.</p> <p>Common uses for Access Road practice: Road drainage improvements, including rolling dips, outsloping, and culvert replacement, repair or addition, and road surface improvements. Also used to access springs or other resource areas and to relocate a poorly designed road to a new location.</p>
Clearing and Snagging (326)	II (riparian work) or III	<p>Clearing or disposing of woody growth, snags and/or other obstructions in or near a stream channel, spillway, trash rack or pipe. This practice is used to prevent bank erosion by eddies, restore the flow capacity of a channel and minimizing blockages.</p> <p>Common uses for Clearing and Snagging practice: Willow tree trimming near bridges or other in-stream structures, or cutting off the tops of imbedded tree trunks and other material that is causing bank scour and associated erosion and streambank instability problems.</p>
Planting (342, 422 612, 391, 380)	I, II or III	<p>Planting vegetation such as trees, shrubs, vines, grasses, or legumes, for resource improvement. These practices can be used on eroding areas, to stabilize the soil, reduce damage from sediment and runoff to downstream areas, and improve wildlife habitat and visual resources.</p> <p>Common uses for Critical Area Planting (342) practice: To protect exposed soil area in agricultural ditches, and to revegetate gullies, roadway edges or farm roads, or exposed slopes or streambanks.</p> <p>Common uses for Hedgerow (442) practice: To provide food, cover and corridors for wildlife and provide insectary benefits that may reduce reliance on synthetic chemicals adjacent to agricultural fields, access roads and watercourses.</p>

		<p>Common uses for Tree/Shrub Establishment (612) and Riparian Forest Buffer (391) practices: To improve riparian habitat for aquatic species by creating shade to lower water temperature, provide a source of detritus and large woody debris, establish wildlife corridors, prevent against erosion within the floodplain, and provide for long-term water quality improvements.</p> <p>Common uses for Windbreak/Shelterbelt Establishment (380) practice: To reduce wind erosion, and improve irrigation efficiency in agricultural settings; to provide shelter for livestock to reduce impact to riparian corridors; and to improve wildlife habitat in areas adjacent to agricultural fields, access roads and watercourses.</p>
Fence (382)	I, II or III	<p>A constructed barrier to livestock and people to facilitate the application of conservation practices and improve livestock management. This practice may be applied in any area where it is necessary to manage or exclude livestock from riparian corridors, reducing organic contaminants and turbidity caused by the presence of livestock. Occasionally, fencing may cross a gully or watercourse.</p> <p>Common uses for the Fence practice: Adjacent to watercourses, across watercourses as part of a livestock cross fencing prescription to disperse livestock and to protect springs, seeps or wetlands.</p>
Grassed Waterway (412)	I or III	<p>A natural or constructed channel that is shaped or graded to required dimensions and velocities, and established to support suitable vegetation for the stable conveyance of runoff. This practice may reduce erosion in a concentrated flow area, such as a gully, and result in the reduction of sediment and other substances delivered to receiving waters.</p> <p>Common use for Grassed Waterway practice: To convey surface water flow in cropland settings.</p>
Irrigation System, Tailwater Recovery (447)	I or III	<p>A planned irrigation system in which all facilities utilized for the Collection, storage, and transportation of irrigation tailwater for reuse have been installed. This practice may be applied as part of a conservation management system to support conservation of irrigation water supplies or to improve off site water quality.</p> <p>Common use for Irrigation System, Tailwater Recovery practice: collection of surface and subsurface water from farm or ranch fields for either irrigation re-use or to allow sediment to settle, improving water quality downstream.</p>
Obstruction Removal (500)	II or III	<p>Removal and disposal of unwanted debris such as broken concrete, garbage or other obstructions that impede or affect on-site or off site water quality or fish and wildlife resources.</p> <p>Common uses for Obstruction Removal practice: Creek cleanup and removal of large items from streams, such as cars and appliances, which impede the implementation of conservation practices.</p>
Pipeline (516 and 430DD)	I, II or III	<p>A pipe conveying water from a source of supply to points of its use; to shift livestock to water troughs and away from streams. The distribution of water through pipelines also improves water</p>

		<p>availability for wildlife in dry areas and improves opportunities for exclusion fencing of riparian corridors from livestock that would otherwise impact aquatic and water quality resources.</p> <p>Common use for Pipeline practice: Gravity and pressure water conveyance systems for livestock that may cross a waterway or sensitive area requiring regulatory review.</p>
Restoration and Management of Rare or Declining Habitats (643)	I, II or III	<p>Restoring and conserving rare or declining native vegetated communities and associated wildlife species. This practice is used to restore land or aquatic habitats degraded by human activity; provide habitat for rare and declining wildlife species by restoring, conserving or increasing native plant communities and diversity; management of unique or declining native habitats.</p> <p>Common use for Restoration and Management of Rare or Declining Habitats practice: Removal of invasive species and planting native species within riparian corridors; to restore tree canopy along grassland watercourses.</p>
Sediment Basins (350) and Water and Sediment Control Basin (638)	I or III	<p>Basins are constructed to collect and trap debris or sediment and prevent undesirable deposition downstream, into ditches, natural waterways or onto bottom lands. The capacity of the basin is designed to equal the volume of sediment expected to be trapped at the site during the planned life of the basin or based on specified removal interval. Design of the spillways and outlets include water control structures to prevent scouring at the discharge point into a natural drainage area.</p> <p>Common use for Sediment Basin and Water and Sediment Control Basin practice: Constructed at the base of agricultural lands adjacent to natural drainage or riparian areas to capture sediment, debris and nutrients that would otherwise discharge into artificial or natural waterways (350) and to control water volumes leaving a site and releasing the water at a natural flow rate (638).</p>
Spring Development (574)	II or III	<p>Collection of water from springs or seeps to provide water for a conservation need. To improve the quantity and/or quality of water for livestock, wildlife or other agricultural uses. This practice is designed to reduce bank erosion, sediment yield, and manure entering watercourses by shifting livestock away from sensitive habitats.</p> <p>Common use for Spring Development practice: Pre-existing, un-maintained spring boxes are reconstructed or new spring boxes are installed to provide sufficient volume of water for livestock and wildlife use during the dry parts of the year. The springs are allowed to overflow and the land area is protected from trampling by livestock and feral pigs.</p>
Stream Habitat Improvement and Management (395)	II, III or IV (riparian work, rip rap installation, and/or potential impacts to	<p>Habitat is enhanced for desired aquatic species by maintaining, improving, or restoring physical, chemical and biological functions of a stream and its associated riparian zone. The practice applies to in-stream structures designed to provide refuge, to create pool and riffle characteristics, and to control sediment, as well as the establishment of riparian vegetation to enhance shade, food, and cover.</p>

	special status species/habitat)	Common uses for Stream Habitat Improvement and Management practice: Log and boulder weirs, placement of woody debris, and willow plantings.
Streambank Protection (580)	II, III or IV	<p>Vegetative or structural treatment(s) used to stabilize and protect banks of streams or constructed channels, and shorelines of lakes, reservoirs, or wetlands to maintain flow capacity and reduce the off site or downstream effects of sediment resulting from bank erosion. To improve or enhance the stream corridor for fish and wildlife habitat, aesthetics, recreation. Treatments are designed to be functional, stable and sustainable for the designed flow.</p> <p>Common use for Streambank Protection practice: Protection of the streambank against the forces of erosion, utilizing willow planting for bank toe protection, log crib walls, rock and root wad placement.</p>
Structure for Water Control (587)	I, II or III	<p>A structure that conveys water, controls the direction or rate of flow, or maintains a desired water surface elevation. This practice applies wherever a permanent structure is needed to convey water over, under or along a ditch, road or other barrier to modify water flow to provide habitat for fish, wildlife or other aquatic animals; and to improve drainage hydrology.</p> <p>Common uses for Structure for Water Control practice: Energy dissipaters, culvert extensions or replacements, and riser pipes.</p>
Underground Outlets (620)	I, II or III	<p>A conduit installed beneath the surface of the ground to collect surface water and convey it to a suitable outlet. Location, size, and number of inlets are determined to collect excess runoff and prevent erosive surface flow. This practice controls surface water in order to reduce damage by erosion and flooding.</p> <p>Common uses for Underground Outlets practice: To safely convey surface water from top of slope to bottom of slope in erodable agricultural land through a pipe or culvert.</p>

Size Limitations for Conservation Practices

The conservation practices are limited in size, as detailed in the following table. Projects constructed under the 15 conservation practices will be limited in length, width, area and volume to ensure that impacts to stream and other habitats, and special status species, are minimized. The dimensions provided are based on typical projects installed by the SBRCD/NRCS, as well as other RCDs, over the last several years, and from discussions with federal and State regulatory agencies intended to limit conservation practice implementation to what are generally considered relatively small, environmentally beneficial projects.

Table 3. Average and Maximum Disturbance Dimensions and Volumes for Conservation Practices

Conservation Practice	Length	Width	Area	Volume¹
<i>Access Roads (560)</i>	Average: 1,000 feet of work spread out over	Average: 30 ft.	Average: 0.8 acres	Average: 1000 cubic

Conservation Practice	Length	Width	Area	Volume ¹
	2 miles ² Max: 2,000 ft. of work spread out over 12 mi.	Max: 30 ft.	Max: 1.5 ac.	yards Max: 5000 cy
<i>Clearing and Snagging (326)</i>	Average: 75 ft. Max: 300 ft.	Average: 15 ft. Max: 30 ft.	Average: 0.1 ac. Max: 0.1 ac. of native riparian vegetation, 0.25 of mixed, native/non-native vegetation, 2.5 ac. where the project area contains ≥90% non-native invasive species.	N/A
<i>Planting (342, 422, 391, 612, 380)</i>	Average: 500 ft. Max: 5280 ft.	Average: 20 ft. Max: 20 ft.	Average: 0.25 ac. Max: 2.5 ac.	Average: 200 cy Max: 1000 cy
<i>Fence (382)</i>	Average: 50 ft. Max: 200 ft. across riparian areas and up to 15,000 ft. through upland areas.	Average: 15 ft. Max: 20 ft. through riparian areas/crossing streams	Average: 750 ac. Max: 4,000 sq. ft. through riparian areas/crossing streams	Average: 15 cy Max: 50 cy through riparian areas
<i>Grassed Waterway (412)</i>	Average: 1,000 ft. Max: 2,000 ft.	Average: 20 ft. Max: 20 ft.	Average: 1 ac. Max: 1.0 ac.	Average: 1000 cy Max: 2000 cy
<i>Irrigation System, Tailwater Recovery (447)</i>	N/A	N/A	Average: 0.1 ac. Max: 0.5 ac.	Average: 500 cy Max: 2500 cy
<i>Obstruction Removal (500) ⁵</i>	Average: 50 ft. Maximum: 200 ft.	N/A	Average: 10 ft. x 15 ft. Max: 0.2 ac.	N/A
<i>Pipeline (516 and 430DD)</i>	Average: 50 ft. Max: 200 ft. across riparian areas and up to 15,000 ft. through upland areas	Average: 15 ft. Max: 20 ft. through riparian areas/crossing streams	Average: 750 ac. Max: 4,000 sq. ft. through riparian areas/crossing streams ³	Average: 15 cy Max: 50 cy through riparian areas ⁴
<i>Restoration and Management of Rare or Declining Habitats (643)</i>	Average: 500 ft. Max: 5280 ft.	N/A	Average: 0.5 ac. Max: 0.1 ac. of native riparian vegetation, 0.25 of mixed, native/non-native vegetation, 2.5 ac. where the project area contains ≥90% non-native invasive species.	Average: 50 cy Max: 500 cy
<i>Sediment Basin (350) and Water and</i>	N/A	N/A	Average: 0.1 ac. Max: 0.5 ac.	Average: 400 cy Max: 2000 cy

Conservation Practice	Length	Width	Area	Volume ¹
<i>Sediment Control Basin (638)</i>				
<i>Spring Development (574)</i>	N/A	N/A	Average: 0.05 ac. Max: 0.05 ac.	Average: 50 cy Max: 100 cy
<i>Stream Habitat Improvement and Management (395)</i>	Max: 5280 ft. with multiple structures at multiple bank locations *Maximum and total area to be dewatered will not exceed 300 ft. over the 1-mi. maximum.	N/A	Average: 1.5 ac. Max: 0.1 ac. of native riparian vegetation, 0.25 of mixed, native/non-native vegetation, 2.5 ac. where the project area contains ≥90% non-native invasive species	Average: 750 cy Max: 1500 cy
<i>Stream bank Protection (580)</i>	Avg Vegetation: 200 Max Vegetation: 2,000 300 ft. contiguous rock protection and 500 ft. of non-contiguous protection over 2,000 ft. of bank	Average Vegetation: 20 Max Vegetation: 50 Average Rock: 4 ft. ⁶ Max Rock: 8 ft.	Average Vegetation: 1 Max Vegetation: 2.5 Max Rock: 0.1 ac.	Average Vegetation: 1,500 cy Max Vegetation: 4,000 cy ⁷ Average Rock: 300 cy Max Rock: 500 cy ⁸
<i>Structure for Water Control (587)</i>	N/A	N/A	N/A	N/A
<i>Underground Outlets (620)</i>	Average: 100 ft. Max: 300 ft.	Average: 20 ft. Max: 30 ft.	Average: 0.05 ac. Max: 0.25 ac. ⁹	Average: 225 cy Max: 1000 cy

¹ Volume of soil is based on practice installation and represents the volume of soil excavated and used as fill or removed from site, or soil imported as fill.

² Access road improvements typically involve multiple installations spread out over a long reach of road. Maximum dimensions refer to actual area of improvement.

³ Area of practice typically includes a 100-foot stream width with 50 feet on either side of stream (total length 200 feet) and a 20-foot wide potential work area for equipment.

⁴ Volume of soil is based on a 2'-foot wide trench over 200 feet in length buried to a depth of 3 feet.

⁵ Actual objects rarely exceed 10 feet x 15 feet. Access to object may involve disturbance of up to 50 feet in length. It is difficult to estimate the total number of separate objects to be removed from the stream. The maximum disturbance per project is limited to 0.2 acres.

⁶ Numbers provided refer to actual areas and volume of rock placed only. Total soil disturbance limits are same as for vegetative treatments since remainder of work area will be vegetated.

⁷ For vegetation treatments, soil disturbance assumed on maximum of 700 feet of 2000-foot max reach. Average depth of soil grading (cut or fill) is 3 feet.

⁸ Quantity of rock will be limited to 500 cyd regardless of larger max area of 3 ac.

⁹ Area of practice within riparian area includes a 50-foot length and a 20-foot wide work area for equipment. Volume of soil is based on a 2-foot wide trench over 50 feet with pipe buried to an average depth of 2 feet.

I. Conservation Planning Process

Under the proposed Program, NRCS/SBRCD will follow the NRCS' Conservation Planning Process described below for all projects. The NRCS will maintain oversight of NRCS-funded projects, and serve as a technical resource to the RCDs, while the RCDs will maintain oversight of all other projects.

The NRCS Nine-Step Conservation Planning Process

The NRCS utilizes a rigorous, nine-step planning process before offering recommendations to cooperators. As a federal agency, the NRCS must ensure that its actions are compliant with the National Environmental Policy Act (NEPA). Once it is determined a Federal action is involved, NRCS must integrate the NEPA process with other planning at the earliest possible time to ensure that planning and decisions reflect environmental values, to avoid delays in the process, and to head off potential conflicts. NEPA compliance applies to any action over which NRCS has control and responsibility. Federal actions do not include situations in which NRCS is only providing technical assistance because NRCS cannot control what the client ultimately does with that assistance. Although NRCS completes an EAW for all conservation plans, only those plans that become NRCS-funded projects will be required to have an EAW that meets NEPA compliance. For the remainder of conservation plans, NRCS conducts the site-specific evaluation to inform the landowner of the plan's impacts and to provide a record that the environmental evaluation was conducted.

NRCS is required to initiate an Environmental Evaluation (EE) for assistance it provides according to the NRCS-NEPA rules (7CFR 650), which became effective in 1979 and were amended June 25, 2008 (73 FR 35885). The EE is the part of the planning process that inventories and estimates the potential effects of alternative solutions to resource problems. A wide range of environmental data together with social and economic information is considered in determining whether a proposed action is a major federal action significantly affecting the human environment. The EE for a program, regulation, or individual action is used to determine the need for an Environmental Assessment or an Environmental Impact Statement.

The NRCS conservation planning process is used to customize a management plan unique to the conditions of each property. A conservation plan is prepared with the customer that describes the alternative conservation measures to address resource concerns. A NEPA-compliant Environmental Assessment Worksheet (EAW) is completed as part of each conservation plan (sample planning documents are provided in Appendix B). The EAW documents short-term, long-term, and cumulative effects of the proposed actions as well as the on site and off site impacts. If significant adverse environmental impacts are expected to result from a project, the landowner is encouraged to consider alternative actions. Typically, for small conservation projects, the assessment indicates that there are no significant adverse impacts or that long-term beneficial impacts outweigh short-term adverse impacts.

The NRCS planning process and the associated planning documents are listed below in Table 5. Not all of the planning documents are generated anew for each location, but are based on templates that exist for each major land use or cropping system in California. Modifications to the templates and the resulting conservation plan are based on the assessment of site-specific conditions. Alternatives are evaluated by the client and the NRCS and result in a specific land-

use plan including detailed recommendations and an engineered plan if engineering practices will be implemented.

NRCS policies ensure that the effects of conservation activities on historic properties and wetlands are considered in the earliest planning stages and that protection is accomplished as part of the planning process. For all conservation projects covered by the proposed Program, the NRCS identifies and examines the potential impacts to and ensures that no significant adverse effects will result from the implementation of prescribed practices.

Table 4. The NRCS Nine-step Planning Process

	NRCS PLANNING STEP	DOCUMENT USED	RESULTS
Step 1	Consultation	Tech notes	Identify resource problems with the cooperators (land operator and other specialists).
Step 2	Determine objectives	Tech notes	Identify, agree on, and document the client's objectives.
Step 3	Inventory the resources ¹⁰	Checklist of resource problems or conditions	The checklist prompts the inventory team to provide quantitative and qualitative data in several resource categories: Soils, water, plants, animals, and human (social, economic, and cultural).
Step 4	Analyze resource data	Quality criteria	For each of the resource problems or conditions identified, quality criteria are used to determine if resource is significantly impaired.
Step 5	Formulate alternative solutions	Site specific practices effect worksheet (SSPEW)	All significantly impaired resources are itemized in a matrix to be used as the SSPEW. A brainstorm of practices which could be used to treat each impaired resource concern is evaluated for anticipated negative or positive effects in the matrix using a three-point scale.
Step 6	Evaluate alternative solutions	Resource management system guidesheet	Groups of practices, or <i>resource management systems</i> , that result in a significant positive improvement in all resource problem categories are identified as alternative systems in the guidesheet. Other groups of practices are also listed as additional alternatives as long as they do not result in a negative effect on resource protection. This process is also known as an <i>alternatives analysis</i> .
Step 7	Client determines course of action	Conservation plan, environmental assessment worksheet	Assist cooperators in selecting a system of optimal conservation practices to maximize resource protection and enhancement. The landowner prepares conservation plan and NEPA documentation.
Step 8	Client implements plan	Project Plans and specifications ¹¹	Practices are implemented according to NRCS recommendations, design, standards, and specifications and with NRCS on-site technical support, if needed.
Step 9	Evaluation of results of plan	Tech notes and status reviews	Evaluate effectiveness of plan and make adjustments as needed.

¹⁰ Additional documents which may be consulted, but are not limited to: 7.5" topographic maps, aerial photos, soil survey, CWA 303(d) list, cultural resources inventory, National Wetlands Inventory, U.S. EPA air quality standards (ozone and PM10), National Range and Pasture Handbook, DFG Rarefind Database.

¹¹ The "project plans and specifications" refers to the complete set of information provided to the participating landowner and may include the following: a design report, practice construction specifications, practice

requirements (site specific specifications), maintenance plan, drawings and construction notes, and project conditions (from the agencies).

Protection of Cultural Resources

Cultural resources compliance is required under sections 106 and 110 of the National Historic Preservation Act (NHPA), which require federal agencies to identify and assess the effects of their actions on cultural and historic resources. All projects implemented under the Program funded by NRCS will be subject to an NRCS assessment to ensure potential impacts to cultural resources are minimized. NRCS procedures comply with the State level agreement with the California State Historic Preservation Office (SHPO). The agreement creates a process for assessing potential impacts, reviewing local, State and national records and literature, and consulting with tribal authorities, historical societies and other interested parties. NRCS policies ensure that the effects of conservation practices on historic resources are considered early in the planning process and that protection is accomplished in most cases by avoidance during project implementation.

Protection of Wetlands

It is the policy of NRCS to protect and promote wetland functions and values in all NRCS planning and application assistance. Wetland delineations are conducted in accordance with the Corps of Engineers Wetland Delineation Manual (1987) and the Food Security Act of 1985, as amended. NRCS conducts an assessment to determine existing ecological functions and potential losses as a result of the implementation of prescribed conservation practices. No project shall be initiated that results in a net loss in the quality, quantity and permanence of streambed, riparian and wetland acreage unless it is determined by NRCS that the placement of fill is necessary for enhancement of resources at the site.

Administration of the Program and Annual Program Calendar

Once the Program is developed, at least one employee from NRCS and one employee from SBRCDD will work together to run the Program. The amount of time required to facilitate the Program is dependent on the number and complexity of projects proposed each year.

A calendar of activities will be developed to aid in the implementation of the Program, beginning with a meeting in November (all staff) to propose projects for the following year. During this meeting, projects are assigned a project lead, core group (individuals to assist the lead, a conservation planner (may be project lead), and engineer if applicable. All members of a project team are included in project planning, development, implementation and reporting. A program coordinator may also be involved to oversee the Program and ensure the schedule is met.

Maintenance and Monitoring of Conservation Practices

All projects constructed under the Program are closely monitored during construction to ensure compliance with the project's design, environmental protection measures, and additional conditions. Effective functioning of the best built conservation practice, however, is only as good as the maintenance the system receives. Maintenance of practices is the responsibility of the landowner, but SBRCDD/NRCS will perform status reviews annually for all funded projects under the Program. The purpose of the status reviews is to determine if the conservation practices are functioning as planned.

Under the Program, SBRC/D/NRCS will monitor on-site compliance with the environmental protection measures and agency-required conditions until installation of the practices is completed. The frequency of on site monitoring by SBRC/D/NRCS during construction will be determined by the complexity of the project and the sensitive resources present. Depending on the project type, there may be critical points in the construction activities where SBRC/D/NRCS staff will need to be on site to monitor implementation (for example, to ensure appropriate depths for trenching or compaction). In addition, in complying with the FWS and NMFS biological opinions, the DFG streambed alteration agreement and other relevant permits and authorizations, SBRC/D/NRCS will determine whether or not qualified individuals are needed for monitoring at each work site, as well as the expertise needed by those individuals.

Following the initial installation of a project, all construction sites will be inspected at least twice during the first rainy season. SBRC/D/NRCS will continue monitoring at least annually for at least five years following initial project construction until the project is functioning as planned, meeting design standards and serving its intended purpose. Status reviews include an examination of the practices' current condition, a comparison of as-built against the original plan (including all plantings and other vegetative success), and recommendations for resolving any problems encountered during implementation of the practices. As part of the Program, the NRCS shall monitor on-site compliance with all environmental protection and mitigation measures and agency-required conditions designed to minimize impacts during Program implementation.

Establishing Permit Conditions

The agreements and permits issued by federal, State and local regulatory agencies for the Program will be based on the Program's proposed environmental protection measures for the implementation of the conservation practices. Additional mandatory conditions and conservation recommendations may include other temporal or seasonal constraints, limitations on the size or general location of the specified practices, and/or pre-construction notification for specific activities. These types of conditions are expected to further avoid or minimize the impact of the work on water quality and sensitive habitats and will ensure that the regulatory agencies' mandates are honored. The conditions from regulatory agencies shall be included with NRCS design standards and specifications for each project implemented under this Program.

Projects that do not qualify for the Program (either because they include work beyond the scope of the 15 conservation practices, exceed the size limits, or cannot adhere to the environmental protection measures or additional permit conditions) will not be included in the Program.

Procedures for Complying with Permits

Training that SBRC/D/NRCS provides for implementation of the Program will clearly stipulate the Program's complete set of environmental protection measures and all additional, mandatory terms and conditions. Prior to the onset of activities that result in the disturbance of habitat or individuals of any special status species, all project workers including SBRC/D/NRCS staff and cooperators, shall be provided all necessary information on the special status species in the project area, a brief overview of the species' natural history, the protection afforded the species by the Endangered Species Act, California Endangered Species Act, Clean Water Act, California Fish and Game Code and other applicable laws and regulations, and the specific protective measures to be followed during implementation of the conservation practices.

The SBRCD will administer the Program using a manual designed specifically for permit coordination programs, *Procedures for Complying with Multiple Permits: A Guide for Conservation Planners*, that will be customized for this Program. The manual creates a process for SBRCD to ensure individual projects qualify for the Program; lists conservation practice selection, design, and implementation criteria, environmental protection and mitigation measures, and conditions required by the agencies in their individual permits; provides information on special status species and their habitat; and details the monitoring and reporting requirements of the Program.

Compliance and Non-compliance

Prior to implementation of the conservation practices, SBRCD/NRCS shall notify the cooperator of the Program's environmental protection measures and all permit conditions through the signed cooperator agreement. If the work carried out is not consistent with NRCS' design standards and specifications, including the environmental protection measures and conditions, SBRCD/NRCS shall notify the cooperator and work directly with him or her to resolve the problem.

SBRCD/NRCS has found this approach to be successful in almost all cases. In the unlikely event that a cooperator still fails to conform, SBRCD/NRCS shall notify the cooperator that his or her activities are inconsistent with the Program or the cost-share contract and that the cooperator's actions are no longer covered by the Program's permits and agreements.

Notification and Reporting

Annual status reviews are conducted by the SBRCD/NRCS for all funded projects, for five years following initial construction. More frequent status reviews shall be conducted for all projects until projects are installed and are functioning according to design standards and serving their intended purpose. Status reviews include an assessment of each project's current condition, a comparison of construction with the project's design plan, and recommendations for resolving any problems that may have occurred during project implementation.

Following the annual review of all projects, SBRCD/NRCS shall provide an annual Program status report to all permitting agencies. The report shall list all projects implemented during the previous year, and describe each project's purpose, area affected, and size and volume of material removed or placed. Conservation benefits achieved by each project will be discussed, and any net gains in riparian or other aquatic habitat detailed. Finally, all actions taken to avoid adverse effects to special status species will be noted, any incidental take of special status species noted and explained, and photo documentation of site conditions prior to and following construction provided. The report shall be submitted to the regulatory agencies by January 31 of each year.

Program Evaluation

After five years of implementation of the Program, following the 2013 construction season, SBRCD/NRCS shall compile a comprehensive assessment of the Program and all projects constructed to that point. The assessment will summarize the types of projects and conservation practices installed, and discuss the Program's successes and challenges, including the regulatory process. The compiled data will be utilized to provide the agencies with a general overview of

the Program's effectiveness, and provide an opportunity for agencies and SBRCD/NRCS to discuss needed improvements, at the halfway point of its 10-year term.

II. ENVIRONMENTAL AND REGULATORY SETTING

A. Watershed Descriptions

The Program will be implemented in all portions of the UPRW upstream of Chittenden Pass, encompassing a total of 1212 square miles, including part of the Santa Cruz Mountains and lower Santa Clara Valley in southern Santa Clara County, Gabilan Range, Diablo Range, and the valleys between these mountains in San Benito County. Mountainous terrain predominates, except for the Pajaro and San Benito River valleys and the southern Santa Clara Valley. The Program area includes all lands in waterways and associated uplands within the UPRW. A few (but not all) of the sub-watersheds include the Pajaro River mainstem, San Benito River, Uvas Creek, Llagas Creek, Pacheco Creek, Tequisquita Slough, and Tres Pinos Creek.

San Benito County covers 889,020 acres of residential, irrigated cropland, and grazed land. Irrigated cropland (vegetable crops and fruit and nut orchards) is concentrated in the San Juan and Hollister valleys, which drain to the Monterey Bay via the Pajaro River. Grazed land is primarily confined to the mountains and isolated non-irrigated valleys of the Diablo and Gabilan Mountain ranges.

Santa Clara County encompasses 826,050 acres. The Llagas and Uvas watersheds, in the southern part of the county, drain south to the Pajaro River mainstem. Irrigated agriculture is primarily built around vegetable crops and fruit and nut orchards.

Irrigation water for both counties is obtained from local ground water basins and imported water supplies. To maintain water supplies, surface deliveries are imported from the U.S. Bureau of Reclamation's Central Valley Project and the State Water Project.

Resource concerns associated with above mentioned land uses have been identified by local landowners and community groups and include: water use efficiency, water quality, soil conservation, flood control, and fish and wildlife habitat. Adequate water supply is a concern in both counties as water is imported for municipal, industrial, and agricultural use.

Water quality and soil conservation are vital to sustainable agriculture, for both irrigated cropland and rangeland. Improved management practices are needed on the grazing and agricultural land to improve water quality through sediment reduction and irrigation water management. Many of the area's riparian corridors have been modified through channelization, riparian clearing, and other flood control activities. Habitat fragmentation and degradation has resulted. The watershed lands of San Benito and Santa Clara counties provide food, forage, and shelter to a wide diversity of special status species, including South Central California Coast ESU steelhead (Uvas Creek, Llagas Creek, Pacheco Creek, San Benito River), California red-legged frog (Uvas Creek, Llagas Creek, Pacheco/Tres Pinos Creek, San Benito River), Santa Clara Valley dudleya (Uvas Creek, Llagas Creek, Pacheco Creek), Coyote ceanothus (Uvas Creek), California tiger salamander (Llagas Creek, Pacheco Creek, Tres Pinos Creek, San Benito River), San Joaquin kit fox (Pacheco Creek, Tres Pinos Creek, San Benito River), and Western yellow-billed cuckoo (Tres Pinos Creek).

Uvas Creek Watershed: Uvas Creek drains an approximately 71 square mile watershed as it flows southeastward from the Santa Cruz Mountains to the southern Santa Clara Valley. The watershed is fed primarily by winter rainfall, which ranges from an average of 45 inches per year at upper elevations of the watershed to 22 inches per year near Gilroy. Land uses in the Uvas Creek watershed include agriculture, rural residential, silviculture and grazing. Primary tributaries include Bodfish and Little Arthur Creeks. Below the Uvas Reservoir, Uvas Creek remains largely unmodified by flood control projects. Special status species found in the watershed include SCCC steelhead, California red-legged frog, Santa Clara Valley dudleya and Coyote ceanothus.

Llagas Creek Watershed: Llagas Creek drains an approximately 104 square mile watershed as it flows southeastward from the Santa Cruz Mountains to the southern Santa Clara Valley. Chesbro Reservoir is located in the upper end of the drainage and the cities of Morgan Hill and Gilroy in the lower end; much of the lower reaches have been channelized and affected by riparian clearing and other flood control activities. Primary land uses include agriculture, urban and rural residential, and industrial. Llagas Creek is listed as an impaired water body for nutrients (nitrate, total nitrogen, phosphorus), ammonia, chloride, sodium, and total dissolved solids, sedimentation/siltation, fecal coliform, and dissolved oxygen. Special status species found in the watershed include SCCC steelhead, California red-legged frog, California tiger salamander and Santa Clara Valley dudleya.

Pacheco Creek Watershed: Pacheco Creek drains approximately 157 square miles as it flows toward its confluence with San Felipe Lake from the western face of the Diablo Range in Santa Clara and San Benito Counties. Pacheco Reservoir is located at the downstream end of the North Fork of the Pacheco, and a seasonal lake, Soap Lake, forms annually in the winter in the lower end of the watershed adjacent to San Felipe Lake, providing significant natural flood storage capacity (up to 9000 acres). The rare Central California sycamore alluvial woodland natural community is found in the watershed. Primary tributaries of Pacheco Creek include Santa Ana and Arroyo dos Picachos Creeks. Land uses are mainly agriculture, rural residential and grazing. Special status species found in the watershed include SCCC steelhead, California red-legged frog, California tiger salamander and San Joaquin kit fox.

Tres Pinos Creek: Tres Pinos Creek flows from the western face of the Diablo Range in San Benito County and joins the San Benito River at the south end of the city of Hollister. Primary tributaries are Quien Sabe and Los Muertos Creeks. Land uses are mainly grazing, agriculture and rural residential. A section of the Tres Pinos Creek is intermittently dry in late summer and early fall. Special status species found in the watershed include California red-legged frog, California tiger salamander, San Joaquin kit fox and Western yellow-billed cuckoo.

San Benito River: The San Benito River drains an approximately 530 square mile watershed as it flows in a northerly direction, from the southern tip of San Benito County to the confluence with the Pajaro River just upstream of Chittenden Gap. Hernandez Reservoir is located in the very southern end of the upper watershed. Primary tributaries include Tres Pinos, Bird and Pescadero Creeks and a number of other small streams. The river flows through the city of Hollister prior to joining the Pajaro River. Throughout its length, the San Benito River is subject to dry reaches

except during and shortly after significant rain events. Land uses in the watershed include grazing in the upper basin, sand and gravel mining, agriculture, and suburban and rural residential development. Special status species found in the watershed include SCCC steelhead, California red-legged frog, California tiger salamander, and San Joaquin kit fox.

Tequisquita Slough: Tequisquita Slough is a small freshwater marsh formed at the mouth of Pacheco Creek. It is fed by the Santa Ana and Dos Picachos creeks and flows into Soap Lake. Land uses are mainly agriculture, rural residential and grazing. Special status species found in the watershed include steelhead, California red-legged frog, California tiger salamander and San Joaquin kit fox.

B. Topography, Geology and Climate

The topography of the UPRW is varied, with an elevation range of 80 feet at Chittenden Pass to more than 5,000 feet in the mountainous upper San Benito headwaters region. The San Francisco Bay-UPRW divide is located along Cochran Road in southern Santa Clara County at an elevation of approximately 350 feet. Flat, alluvial valley floors are found along the lower San Benito River, lower Llagas and Uvas Creeks, and the Pajaro River mainstem. On the western side of the drainage lie the heavily forested Santa Cruz Mountains, where steep slopes and small, generally narrow canyons with steep-gradient streams are found. Elevations reach approximately 4,000 feet. Eastward, the more arid Diablo Range is punctuated by cool, shaded canyons found in the upper reaches of Pacheco, Dos Picachos, Santa Ana and Tres Pinos Creeks (Santa Clara County 2007).

Geology and soils of the UPRW largely reflects active tectonics associated with the fault system of the San Andreas plate boundary. The Santa Cruz Mountains are being uplifted along a system of faults related to the San Andreas plate-boundary system. The San Andreas Fault zone, the primary fault within the system, lies northwest along the east flank of the uplift. The western front of the Diablo Range is defined by the Hayward and Calaveras faults, both of which are active faults of the San Andreas system.

The Santa Cruz Mountains uplift exposes a wide range of bedrock units in a complexly deformed series of fault slivers. These include a variety of units assigned to the Franciscan Complex: sandstone, greenstone, serpentized ultramafic rocks, and small bodies of limestone. Volcanic rocks are exposed locally. The low foothills along the eastern range front consist of alluvium recording uplift of the range.

The central portion of the Diablo Range consists of mélangé -- locally including serpentinitic bodies -- and metasandstone of the Franciscan Complex. Outcrops of mafic and ultramafic units (i.e., serpentinite) belonging to the Coast Range Ophiolite are also locally present, and are particularly well developed along the active Ortigalita fault in the vicinity of Del Puerto Canyon. The western Diablo range front is flanked by complexly faulted exposures of sedimentary strata. These include deep marine strata assigned to the Great Valley Group, shallow marine strata of the San Pablo Group, and terrestrial strata of the Contra Costa Group. Quaternary alluvial strata accumulated on essentially modern topography buttress against the range front, and both active alluvium and older terrace deposits are present in the larger stream valleys.

Of particular importance from a conservation perspective are serpentine soils, which are derived from the serpentinite ultramafic rocks of the region. Serpentine soils are typically very shallow, nutrient-poor (i.e., low levels of nitrogen, potassium, phosphorous, and molybdenum essential for normal plant growth), high in magnesium, and may contain elevated levels of the heavy metals chromium and nickel that are toxic to many plant species. Water availability in serpentine soils may also be limited. As a result, serpentine soils support limited and highly specialized floras and vegetation associations that often include a high number of endemic (i.e., largely or entirely restricted to serpentine soils) and special-status species (Santa Clara County 2007)

Subsurface deposits of northern San Benito County are characterized by localized sands and gravels that appear to be river deposits embedded in silts formed in shallow ephemeral lakes. These are then buried by the more uniform overlying silt lakebeds. It is these surface lake silt units that have been transported downstream to blanket the lower Pajaro River Watershed (Pajaro River Watershed Flood Prevention Authority 2002).

The climate of the UPRW is characterized by warm summers with frequent cooling fog occurrences in the lower elevations and hotter temperatures at increasing elevations, and mild spring, fall and winter seasons. Mean annual temperature ranges from 57 to 63° F. Average rainfall is as low as 9 inches per year in the interior areas of the Diablo Range, and as much as 60 inches of rain annually in the wettest spots in the upper headwaters areas of the Uvas Creek watershed. A relatively long growing season is characteristic of the area, with the frost-free period in the county ranging from 200 to 250 days.

C. Biological Resources

The assorted topography and soil types characteristic of San Benito and southern Santa Clara Counties support diverse habitats that in turn support diverse assemblages of species. The principal plant communities present in the county and their occurrence in the county are summarized below.

Grassland

Herbaceous vegetation dominated by grasses and forbs. Grassland in the Program area is classified into six landcover types: California annual grassland, non-serpentine native grassland, serpentine bunchgrass (a sensitive biotic community), serpentine rock outcrop/barrens, serpentine seep, rock outcrop (non-serpentine) and alkaline grassland (Santa Clara County 2007).

Wetlands

Seasonally or permanently flooded areas along streams, lakes, ponds, and springs provide habitat for fresh water marsh wetlands, characterized by species such as bulrushes, sedges, cattails, and rushes. Other wetland communities found in the Program area include serpentine and alkaline wetlands.

Riparian Woodland

Along stream banks a constant water supply plus winter flooding create a unique habitat. The overstory is formed by deciduous trees such as big leaf maple, alder, cottonwood and sycamore. Understory trees are willows and dogwoods, and herbaceous plants are lush. The Central California sycamore alluvial woodland, a sensitive biotic community, is one of three classified Riparian Woodland landcover types in the Program area (Santa Clara County 2007).

Redwood Forest

The redwood community is found in the Santa Cruz Mountains, especially canyons, north slopes, and spots moistened by summer fogs. Because of the thick tree canopy and layer of acidic duff in the redwood forest, the diversity of plants is restricted. Associated plants include sword ferns, huckleberry, trillium, and redwood sorrel.

Mixed Evergreen Forest

Mixed evergreen forest is frequently found adjacent to redwood forest but occupying drier and more exposed areas. Common trees include interior and coast live oak, tan oak, madrone, bay, and buckeye. Understory plants include ceonothus, coffee berry, hazel, ground rose, and poison oak.

Chaparral

Occupying the hottest and driest slopes of the Santa Cruz Mountains, chaparral plants form dense thickets and are adapted to little water and to wildfires. Leaves of chaparral plants are often small, thick, light green or greyish, and waxy and are retained year round. Manzanita, coyote brush, chamise, ceonothus, monkey flower, and sage are common chaparral plants.

Foothill Woodlands

Foothill woodlands commonly form the transition between grasslands and mixed evergreen forests on the eastern side of the crest in the Santa Cruz Mountains.

Oak Savanna/Grassland

Oak savanna and grasslands occasionally form on tops of south facing ridges. Valley oak is the dominant tree with the grassy ground vegetation containing needlegrass, fescue, melic, wildrye and bluegrass species.

The following rare biotic communities are known to occur in the Program area:

Sycamore alluvial woodland

Restricted to the South Coast Ranges from Alameda to Santa Barbara counties, Sycamore alluvial woodlands are open to moderately closed, winter-deciduous broadleaved riparian woodland overwhelmingly dominated by well-spaced Western Sycamore (*Platanus racemosa*). California buckeye (*Aesculus californica*) and Mexican elderberry (*Sambucus mexicana*) are widely spaced in the subcanopy. Understories usually are introduced grasses or Mule fat (*Baccharis salicifolia*).

Serpentine wetlands

No information for this rare natural community was identified.

Serpentine grassland (including Serpentine bunchgrass)

A serpentinic outcrop community which provides habitat to an array of rare and special status species including Metcalf Canyon jewelflower (*Streptanthus albidus* ssp. *albidus*), Mt. Hamilton thistle (*Cirsium fontinale* var. *campylon*), Santa Clara Valley dudleya (*Dudleya setchellii*), most beautiful jewelflower (*Streptanthus albidus* var. *peramoenus*), and the Bay checkerspot butterfly (*Euphydryas editha bayensis*).

Alkaline wetlands

Alkaline wetlands are those that are subsaline or saline. The characteristic emergent plant is alkali bulrush (*Scirpus maritimus*), but often these wetlands contain few emergent plants. The primary open-water plants are widgeongrass (*Rupia maritima*), muskgrass (*Chara* spp.), and sago pondweed (*Stuckenia pectinata*).

Alkaline grasslands

No information for this rare natural community was identified.

SBRC/D/NRCS staff or other qualified individuals will conduct a reconnaissance-level survey of a proposed project site to determine if any of these rare biotic communities are present. If a rare habitat is found in the work area, protective measures specified in section III, Table 10 for rare biotic communities will be followed.

D. Special Status Species

A number of plant and animal species occurring or potentially occurring in the Program area are listed as threatened or endangered under the ESA and CESA, as State Species of Special Concern or State Fully Protected Species, or as rare plants. They are listed below in Tables 4, 5 and 6. CEQA sec. 15380 provides for the same level of consideration for all special status species in the CEQA analysis and documents. Special status species are defined in the Program as follows:

- Plants or animals that are listed by FWS or NMFS as threatened or endangered under the ESA, or by DFG as threatened or endangered under CESA
- Animals designated by the DFG as *State Species of Special Concern* or *State Fully Protected Species*
- California Native Plant Society (CNPS) inventory of 1A and 1B rare and endangered classifications of vascular plants of California
- Plants or animals that are candidates for possible future listing as threatened or endangered under the ESA.

Table 5. Endangered and Threatened Plants and Animals Potentially Occurring in Program Area

Common name (<i>Scientific name</i>)	Status
PLANTS	
Coyote ceanothus (<i>Ceanothus ferrisae</i>)	Federal Endangered
Santa Clara Valley dudleya (<i>Dudleya setchellii</i>)	Federal Endangered
San Benito evening primrose (<i>Camissonia benitensis</i>)	Federal Threatened
San Joaquin woollythreads (<i>Lembertia congdonii</i>)	Federal Endangered
Metcalf Canyon jewel flower (<i>Streptanthus albidus</i> ssp. <i>albidus</i>)	Federal Endangered
INVERTERBRATES	
Bay checkerspot butterfly (<i>Euphydryas editha bayensi</i>)	Federal Threatened, Critical Habitat designated
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	Federal Threatened, Critical Habitat designated
FISH	
Steelhead (South Central California Coast DPS, <i>Oncorhynchus mykiss irideus</i>)	Federal Threatened, Critical Habitat designated
AMPHIBIANS	
California red-legged frog (<i>Rana aurora draytonii</i>)	Federal Threatened, Critical Habitat designated; State Species of Special Concern
California tiger salamander (Central California DPS, <i>Ambystoma californiense</i>)	Federal Threatened, Critical Habitat designated; State Species of Special Concern
REPTILES	
Blunt-nosed leopard lizard (<i>Gambelia sila</i>)	Federal Endangered; State Endangered, State Fully Protected Species
BIRDS	
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	Federal Candidate, State Endangered
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	Federal Endangered, Critical Habitat designated; State Endangered
California condor (<i>Gymnogyps californianus</i>)	Federal Endangered, Critical Habitat designated; State Endangered, State Fully Protected Species
American peregrine falcon (<i>Falco peregrinus anatum</i>)	State Endangered, State Fully Protected Species
Bank swallow (<i>Riparia riparia</i>)	State Threatened
MAMMALS	
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	Federal Endangered, State Threatened

Table 6. State Rare Plants with the Potential to Occur in the Program Area²

CNPS LIST OF RARE PLANTS: 1B (RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE) AND 1A (PRESUMED EXTINCT IN CALIFORNIA)	
Common name (<i>Scientific name</i>)	Status
Bent-flowered fiddleneck (<i>Amsinckia lunaris</i>)	CNPS 1B
Gabilan Mountains manzanita (<i>Arctostaphylos gabilanensis</i>)	CNPS 1B
Pajaro manzanita (<i>Arctostaphylos pajaroensis</i>)	CNPS 1B
Alkali milk-vetch (<i>Astragalus tener</i> var. <i>tener</i>)	CNPS 1B
San Joaquin spearscale (<i>Atriplex joaquiniana</i>)	CNPS 1B
Big-scale balsamroot (<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>)	CNPS 1B
Big tarplant (<i>Blepharizonia plumosa</i>)	CNPS 1B
Round-leaved filaree (<i>California macrophylla</i>)	CNPS 1B
Chaparral harebell (<i>Campanula exigua</i>)	CNPS 1B
Pink creamsacs (<i>Castilleja rubicundula</i> ssp. <i>rubicundula</i>)	CNPS 1B
Lemmon's jewelflower (<i>Caulanthus coulteri</i> var. <i>lemmonii</i>)	CNPS 1B
Congdon's tarplant (<i>Centromadia parryi</i> ssp. <i>congdonii</i>)	CNPS 1B
San Benito spineflower (<i>Chorizanthe biloba</i> var. <i>immemora</i>)	CNPS 1B
Mt. Hamilton thistle (<i>Cirsium fontinale</i> var. <i>campylon</i>)	CNPS 1B
Mt. Hamilton coreopsis (<i>Coreopsis hamiltonii</i>)	CNPS 1B
Hall's tarplant (<i>Deinandra halliana</i>)	CNPS 1B
Hospital Canyon larkspur (<i>Delphinium californicum</i> ssp. <i>interius</i>)	CNPS 1B
Pinnacles buckwheat (<i>Eriogonum nortonii</i>)	CNPS 1B
Hoover's button celery (<i>Eryngium aristulatum</i> var. <i>hooveri</i>)	CNPS 1B
Talus fritillary (<i>Fritillaria falcata</i>)	CNPS 1B
San Benito fritillary (<i>Fritillaria viridea</i>)	CNPS 1B
Loma Prieta hoita (<i>Hoita strobilina</i>)	CNPS 1B
Rayless layia (<i>Layia discoidea</i>)	CNPS 1B

² This rare plant list is based on the CNPS database of rare plants in California, available at www.cnps.org.

Pale-yellow layia (<i>Layia heterotricha</i>)	CNPS 1B
Legenere (<i>Legenere limosa</i>)	CNPS 1B
Panoche pepper grass (<i>Lepidium jaredii</i> ssp. <i>album</i>)	CNPS 1B
Smooth lessingia (<i>Lessingia micradenia</i> var. <i>glabrata</i>)	CNPS 1B
Showy madia (<i>Madia radiata</i>)	CNPS 1B
Indian Valley bush mallow (<i>Malacothamnus aboriginum</i>)	CNPS 1B
Arcuate bush mallow (<i>Malacothamnus arcuatus</i>)	CNPS 1B
Hall's bush mallow (<i>Malacothamnus halii</i>)	CNPS 1B
Carmel Valley malacothrix (<i>Malacothrix saxatilis</i> var. <i>arachnoidea</i>)	CNPS 1B
Marsh microseris (<i>Microseris paludosa</i>)	CNPS 1B
Shining navarretia (<i>Navarretia nigelliformis</i> ssp. <i>radians</i>)	CNPS 1B
Prostrate navarretia (<i>Navarretia prostrata</i>)	CNPS 1B
Slender pentachaeta (<i>Pentachaeta exilis</i> ssp. <i>aeolica</i>)	CNPS 1B
Hairless popcorn flower (<i>Plagiobothrys uncinatus</i>)	CNPS 1A
Metcalf Canyon jewel flower (<i>Streptanthus albidus</i> ssp. <i>albidus</i>)	CNPS 1B
Most beautiful jewel flower (<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>)	CNPS 1B
Saline clover (<i>Trifolium depauperatum</i> var. <i>hydrophilium</i>)	CNPS 1B

Table 7: State Species of Special Concern Potentially Occurring in Program Area

AMPHIBIANS
Foothill yellow-legged frog (<i>Rana boylei</i>)
Coast Range newt (<i>Taricha torosa torosa</i>)
Western spadefoot toad (<i>Spea hammondi</i>)
REPTILES
Black legless lizard (<i>Anniella pulchra nigra</i>)
Southwestern pond turtle (<i>Clemmys marmorata pallida</i>)
Western pond turtle (<i>Clemmys marmorata</i>)
Coast horned lizard (<i>Phrynosoma coronatum</i>)
Two-striped garter snake (<i>Thamnophis hammondi</i>)
San Joaquin whipsnake (<i>Masticophis flagellum ruddocki</i>)

BIRDS	
White-tailed kite (<i>Elanus leucurus</i>)	State Fully Protected Species
Burrowing owl (<i>Athene cunicularia</i>)	
Cooper's hawk (<i>Accipiter cooperii</i>)	
Tricolored blackbird (<i>Agelaius tricolor</i>)	
Osprey (<i>Pandion haliaetus</i>)	
Northern harrier (<i>Circus cyaneus</i>)	
Sharp-shinned hawk (<i>Accipiter striatus</i>)	
Golden eagle (<i>Aquila chrysaetos</i>)	
Prairie falcon (<i>Falco mexicanus</i>)	
Long-eared owl (<i>Asio otus</i>)	
MAMMALS	
San Francisco dusky-footed woodrat (<i>Neotoma fuscipes annectens</i>)	
Monterey dusky-footed woodrat (<i>Neotoma macrotis Luciana</i>)	
Townsend's western big-eared bat (<i>Corynorhinus townsendii townsendii</i>)	
Hoary bat (<i>Lasiurus cinereus</i>)	
Pallid bat (<i>Antrozous pallidus</i>)	
Western mastiff bat (<i>Eurnops perotis californicus</i>)	
Big-eared kangaroo rat (<i>Dipodomys venustus elephantinus</i>)	
American badger (<i>Taxidea taxus</i>)	
CNDDB RARE NATURAL COMMUNITIES³	
Serpentine bunchgrass	
Sycamore alluvial woodland	

Sources: The data for these tables were compiled from the FWS Sacramento and Ventura offices' Threatened and Endangered species website databases, DFG's California Natural Diversity Database, and the California Native Plant Society Inventory of Rare and Endangered Plants database.

³ A number of special status species are known to occur in these rare natural communities. Although the Serpentine bunchgrass and Sycamore alluvial woodland communities are not protected by federal or State law, they and other rare natural communities will be protected during project construction as specified in section III, Table 10.

E. Historic and Cultural Resources

The Program area is rich in historic and cultural resources, stretching back to the original Ohlone or Costanoan Native Americans, who may have first occupied the Southern Santa Clara Valley and Pajaro River region roughly 6,000 years ago. Spanish explorers arrived in the area in 1769, and European settlement soon followed. Much of the landscape was divided into large ranchos via Spanish land grants in the first half of the 19th century; these landholdings then began to be subdivided as American settlers arrived in greater numbers. California statehood was declared at the middle of the century. Railroad development brought increasing commerce to the area, and both the agricultural industry and the human population grew as roads were built and towns incorporated. These are the roots of today's row crop, orchard and vineyard agriculture, and cattle grazing operations in San Benito and southern Santa Clara Counties. Historical and cultural traces of this history can be found throughout the region (Santa Clara County 2003).

Protection of sensitive historic and cultural resources is an important component of the SBRCD/NRCS planning process as described in Sections I and II of this document. Provisions for protecting these resources will be used to avoid or minimize the potential impact of conservation practices during Program implementation in San Benito and southern Santa Clara Counties. The General Plans of both counties contain policies for historic and cultural resource protection.

F. Socioeconomics and Land Use

The Program area remains relatively rural, and maintaining the character of the rural lands and limiting population growth is addressed in both counties' general plans.

The Santa Clara County General Plan (Santa Clara County 2004) is consistent with countywide urban development policies and growth management strategies adopted by the cities and the County of Santa Clara. The basic strategies for land management in the rural unincorporated area are to preserve the resources and character of rural lands and to develop special area plans to address development opportunities and constraints. The South County Joint Area Plan, adopted as part of the general plans of the County, Gilroy, and Morgan Hill in 1988 is an example of such a special area plan.

The county's joint urban development policies require that urban land uses and densities be located only within cities, not within the rural unincorporated areas and that cities, including Morgan Hill and Gilroy, are responsible for managing urban growth through various means, including infill, expansion if appropriate, or both, but only on lands within each city's established Urban Service Area (USA) boundary. On lands outside of cities' USAs, it is incumbent upon the County to allow only non-urban, low-density uses.

The San Benito County General Plan (currently under revision) recognizes the inherent conflict between the development and utilization of some natural resources (e.g., minerals, agriculture) and the urban or suburban development of surrounding properties, but requires the preservation

of the rural atmosphere by directing population growth and public service extensions to infill development and avoiding leapfrog growth.

The San Benito County General Plan references the Zoning Ordinance to protect and preserve the rural landscape and implement open space policies for public health, safety and welfare, continued agricultural uses, scenic viewscape preservation including scenic highways corridors, park and recreation uses, conservation of natural resources, the containment and definition of limits to urbanization, and the preservation of natural habitat for threatened and/or endangered plant and animal species. The County's policy ensures that only non-urban uses are located beyond designated growth boundaries. The County's Floodplain Ordinance is currently being updated as part of the General Plan update.

According to the U.S. Census Bureau, the population of San Benito County was estimated in 2006 to be 55,842, an increase of 19,145 from 1990. The county population grew at a 2.9 percent annual average growth rate during the 1990-2000. According to U.S. Census Bureau, the population of Santa Clara County was estimated to be 1,731,281 in 2006, an increase of 48,696 from 2000, or a 2.9 percent increase in six years.

The city of Gilroy in Santa Clara County is the largest city in the Program area, with a 2006 population of 48,313 (up from 31,487 in 1990), followed by the city of Morgan Hill, with an estimated 2006 population of 35,982 (23,928 in 1990). Hollister, in San Benito County, had an estimated 2006 population of 35,690 (19,212 in 1990), while the small town of San Juan Bautista, had an estimated 2006 population of 1,744 (1,570 in 1990). Table 7 illustrates population growth since 1990 in the cities of Gilroy, Hollister, Morgan Hill, and San Juan Bautista.

Table 8: 1990-2006 Population Growth of Municipalities in Program Area

CITY/COUNTY	2006 POPULATION	1990 POPULATION
Gilroy	48,313	31,487
Hollister	35,690	19,212
Morgan Hill	35,982	23,928
San Juan Bautista	1,744	1,570

Principal land uses in the UPRW include industry, agriculture, rangeland, timberlands and residential and urban development. With the exception of the four urbanized areas where development is concentrated within the Program area (Hollister, Morgan Hill, Gilroy and San Juan Bautista), Santa Benito County and southern Santa Clara County are predominantly rural. Approximately 75 percent of the UPRW is comprised of either agricultural or grazing land. The valley floodplains, containing alluvial soils, are home to highly productive row crop and fruit orchard agriculture, while the lower and upper hill slopes provide productive land for vineyards and grazing. Timber harvest activities occur in the higher areas of the Santa Cruz Mountains, in the Uvas Creek watershed. Leading agricultural commodities include: lettuce, nursery stock, vegetable and row crops, wine grapes and bell peppers.

G. Water Quality

The State Water Resources Control Board's 2002 Clean Water Act Section 303(d) List of Water Quality Limited Segments indicates that significant water quality problems are impairing the health of several streams in the watershed (see Table 9).

Sedimentation in streams of the Pajaro River watershed directly impairs the spawning and rearing habitat of the steelhead population present in several Upper Pajaro River tributaries. Fine sediment accumulates in pools and riffles, reducing pool volume and causing gravel to become embedded or cemented. The accumulation of fine sediments in stream gravel also lowers the availability of dissolved oxygen in the substrate, affecting fish directly by reducing spawning and rearing success, and reducing the density of macroinvertebrates, a principal food source for salmonids. Sediment accumulation also impairs amphibian habitat, potentially affecting the threatened California tiger salamander and California red-legged frog.

Table 9. Clean Water Act Section 303(d) Listed (Impaired) Waterways in the UPRW

Waterway	Pollutant/Stressor	Potential Sources
Pajaro River mainstem	Fecal coliform	Grazing-riparian and/or upland Natural sources Nonpoint sources
	Nutrients	Agriculture Irrigated crop production Ag storm runoff Ag subsurface drainage Ag irrigation tailwater Ag return flows Urban runoff-storm sewers Wastewater Channelization Removal of riparian vegetation
	Sedimentation/siltation	Nonpoint sources Agriculture Irrigated crop production Range grazing-riparian and/or upland Ag storm runoff Resource extraction Surface mining Hydromodification Channelization Habitat modification Removal of riparian vegetation Streambank modification/destabilization Channel erosion
Llagas Creek	Chloride	Nonpoint source Point source
	Fecal coliform	Pasture grazing-riparian and/or upland Natural sources Nonpoint source

Waterway	Pollutant/Stressor	Potential Sources
	Low dissolved oxygen	Municipal point sources Irrigated crop production Ag return flows Habitat modification
	Nutrients	Municipal point sources Agriculture Irrigated crop production Pasture grazing Ag storm runoff Ag irrigation tailwater Ag return flows Urban runoff/storm sewers Habitat modification Nonpoint source Unknown point sources
	pH	Source unknown Agriculture
	Sedimentation/siltation	Hydromodification Habitat modification
	Sodium	Source unknown Nonpoint source
	Total dissolved solids	Nonpoint source Point source
San Benito River	Fecal coliform	Source unknown
	Sedimentation/siltation	Agriculture Resource extraction Nonpoint source
Tequisquita Slough	Fecal coliform	Agriculture Natural sources Nonpoint source

The Clean Water Act requires the Regional Board to establish Total Daily Maximum Loads (TMDLs) for impaired waterways listed under section 303(d). TMDLs for sediment were established in 2005 for the Pajaro River Watershed, including Llagas Creek and the San Benito River. The numeric TMDL targets are designated to protect the beneficial uses of the watershed, particularly cold and warm water aquatic habitat. These targets are not enforceable standards, but instead are goals to be achieved through improved land management and restoration. Sediment sources within the watershed have been identified primarily as nonpoint in nature, including agricultural operations, silviculture, urban land use, rangeland and grazing activities, sand and gravel mining operations, streambank erosion, roads, and natural erosion processes. In several key Program area sub-watersheds, including the San Benito River, Tres Pinos Creek, Llagas Creek and Uvas Creek, pasture and rangeland operations are noted to be significant contributors to excessive sediment loads (CCRWQCB 2005).

<u>Stream</u>	<u>TMDL</u>	<u>Current Sediment Load</u>	<u>% Reduction Req'd</u>
San Benito River	39,679 tons	87,451 tons	55%
Tres Pinos Creek	53,778	68,411	21
Llagas Creek	15,177	20,508	26
Pacheco Creek	31,742	46,178	31
Santa Ana Creek	12,208	30,701	60

The Regional Board's Pajaro River Watershed Sediment TMDLs project report states that a range of implementation activities will be required to achieve sediment load reductions and meet the TMDL targets in the next 45 years. In particular, regulatory programs alone cannot achieve TMDL targets. Cooperative non-point source pollution control programs will be a key part of achieving sediment load reductions. The Program can be an important part of this effort.

Enhancements to Beneficial Uses in Program Area

The CCRWQCB has listed 14 beneficial uses for the 303(d) listed streams noted above in the Upper Pajaro watershed:

- Municipal and domestic water supply
- Agricultural water supply
- Industrial water supply
- Groundwater recharge
- Water contact recreation
- Non-contact water recreation
- Wildlife habitat
- Cold freshwater habitat
- Warm freshwater habitat
- Migration of aquatic organisms
- Spawning, reproduction, and/or early development (fish)
- Rare, threatened, or endangered species
- Freshwater replenishment
- Commercial and sport fishing

Existing Agricultural Water Quality/Erosion Control Programs

As noted previously, several of the waterways in the Program area are listed on the CWA section 303(d) list of impaired water bodies. Sedimentation has been documented as a significant problem in the watershed, to which agriculture had been identified as a contributing source through irrigated crop production, sediment-laden storm runoff, and grazing activities. Other prime sediment sources include sand and gravel mining along the lower mainstems of the Pajaro and San Benito Rivers, channelization and other changes to natural stream morphology, riparian vegetation removal and other habitat modification activities.

Excessive nutrients, primarily phosphorus and nitrogen, are identified as sources of pollutants in the mainstem Pajaro River and Llagas Creek waterways. Identified sources of excessive nutrients include storm runoff from agricultural lands as well as urban areas, irrigated crop production,

agricultural drainage and tailwater, pasture grazing, treated wastewater, loss of natural filtration capacity due to the removal of riparian vegetation, and other nonpoint and point source pollution. Excessive nutrient loading is deleterious to water quality because it supports the excessive growth of algae and other aquatic plants that consume oxygen and lower dissolved oxygen levels, depriving other aquatic life, particularly fish species, of oxygen. In addition to excessive nutrient levels, coliform bacteria, chloride and sodium are also pollutants of concern for the listed drainages.

Monterey Bay National Marine Sanctuary Water Quality Protection Program

The watersheds of the Upper Pajaro River empty into the Monterey Bay National Marine Sanctuary (MBNMS). The MBNMS is the nation's largest National Marine Sanctuary, established in 1992 to protect the diverse and unique marine resources of the Central California Coast. The Sanctuary manages the area's natural resources by balancing the recreational and commercial activities of human beings with long-term protection of the marine environment.

The MBNMS Water Quality Protection Program (WQPP) was established in 1994 as a non-regulatory program with the mission of keeping the waters of the MBNMS clean. The 25 federal, state and local agencies, public groups, landowners and businesses that now constitute the WQPP have employed a consensus based-process to create an effective program to address MBNMS water quality issues, including nonpoint source pollution from the MBNMS watersheds. A primary focus of the program is to improve integration among the large number of existing water quality programs, address gaps and redundancies, and develop more effective means to protect MBNMS resources. WQPP plans addressing urban runoff, marinas and boating and regional monitoring have been completed and implemented.

Two of the largest land uses in the MBNMS watersheds are agriculture and grazing. WQPP members have worked with the agricultural community to develop strategies to improve water quality while sustaining the region's agricultural and grazing activities. An Agriculture and Rural Lands plan has been completed with the WQPP partner agencies. The plan specifies 24 strategies, including permit coordination programs, to enhance the voluntary implementation of practices to control non-point source pollution from private lands through:

- Establishment of industry networks to address non-point sources
- Improved technical assistance and outreach
- Public education and public relations efforts
- Funding mechanisms and incentives
- Regulatory and permit coordination

Permit coordination for conservation practices implemented by SBRCD/NRCS and other agencies that protect and enhance water quality is one of the key recommendations of the plan. It is an important part of the broader array of recommendations which, when implemented, can help protect the health of UPRW.

III. ENVIRONMENTAL PROTECTION AND MITIGATION MEASURES

The intent of the proposed Program, and its 15 conservation practices, is to reduce erosion, sedimentation and nutrient runoff, and enhance riparian and other natural habitat, in San Benito and southern Santa Clara counties within the Upper Pajaro River Watershed. These environmental enhancements are expected to improve water quality, the health of the watersheds and agricultural productivity. However, any activity that involves work in an area with sensitive resources, no matter how beneficial the intent, has the potential to negatively affect those resources without careful planning and implementation. Due to the presence of sensitive habitats and special status species in the Program area, an extensive set of environmental protection measures is proposed.

SBRC/D/NRCS conservation planners follow the previously detailed standard conservation planning process, and establish additional measures to assure that projects have minimal impact on the Program area's natural resources and meet the requirements of regulating agencies. The following environmental protection and mitigation measures will be implemented with all conservation practices installed under the Program, to avoid or minimize the potential impacts on natural and cultural resources, plants, animals and sensitive habitat.

In addition to the environmental protection and mitigation measures incorporated into the Program description and described in this section, additional project conditions may be proposed by the participating regulatory agencies through their programmatic or individual permits and authorizations. These conditions may include temporal or seasonal constraints beyond those included in the Program description, additional limitations on the size or general location of the specified practices, and additional pre-construction notification requirements. The conditions are expected to help further avoid or minimize the impact of the projects on water quality and sensitive species and habitats, and will ensure that regulatory agencies' mandates are fulfilled.

A. The Permit Coordination Tiered Approach to Environmental Protection and Mitigation

Environmental protection measures are listed in a tiered table developed in consultation with the CCRWQB. The tiered approach is summarized in a matrix that enables the classification of a proposed project into one of four possible tiers. With increasing impacts, a project is classified into a higher tier, requiring additional environmental protection measures.

Projects with little impact (upland projects with no expected impacts to special status species) will be placed in Tier I. Tier I projects will have the fewest requirements for surveys, monitoring and other special conditions. Work in streams automatically places projects in Tier II or higher; the presence of special status species (in streams or uplands) places projects in Tier III or higher; projects that include rock rip rap bank protection materials or that propose the removal of large instream barriers are placed in Tier IV. Projects beyond the scope of Tier IV will not qualify for the Program.

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
			For each project, total permanent (fill) impacts to waterways and wetlands may not exceed more than 0.5 acre and may not result in (permanent) fill of more than 0.25 acre of wetland.	
Protection of rare biotic communities	Any proposed work that will involve direct impacts to serpentine grasslands or sycamores (including their root systems) or that will change the hydrology of the surrounding area (i.e. changes to the water available to the sycamore root system) will not occur.	All Tier I requirements apply.	All Tier I requirements apply.	All Tier I requirements apply.
Work in stream bed, channel, or bank, including riparian habitat	<u>Not allowed</u> (work in streams not allowed under this tier)	<u>Allowed with restrictions</u> <u>Site disturbance</u> Site disturbance will not exceed the limitations (length, width, volume of soil) for each practice as specified in Table 2, Disturbance Limitations. The total project footprint will be limited to the minimum area necessary to achieve the project goals. <u>Work restrictions</u> Finished grades will not be steeper than 2:1 unless pre-construction condition is so steep (e.g. vertical stream banks) that a 2:1	<u>Allowed with restrictions</u> <u>Site disturbance</u> All restrictions for TIER II apply, AND: Spill prevention plans must be in place prior to construction at each project site. Oil absorbent and spill containment materials shall be located on site when mechanical equipment is in operation with 100 feet of the proposed watercourse crossings. If a spill occurs, (1) no additional work shall occur in-channel until the mechanical equipment is inspected by the contractor and SBRCD/NRCS, and the leak has been	<u>Allowed with restrictions</u> <u>Site disturbance</u> All restrictions for TIER II (without special status species) or TIER III (with special status species) apply.

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>slope on the final grade is not possible; vertical banks may be graded to the slopes described in the conservation practice or engineered design.</p> <p>Disturbance or removal of native shrubs, woody perennials, and trees in the stream bed, channel, bank or riparian corridor (as defined in section I.F) will be avoided completely, with the following exceptions:</p> <p>(1) When necessary for worksite access, any native trees removed over 3" dbh (diameter at breast height) and 4" dbh for willows, will be replaced at a 3:1 ratio unless otherwise agreed to with DFG and NMFS during pre-construction inspections. If riparian vegetation will be disturbed, it will be replaced with native species and restored to pre-construction condition or better unless it is determined that natural recruitment will be a more effective alternative. The landowner will maintain all replaced vegetation. he root</p>	<p>repaired, (2) the spill has been contained, and (3) DFG and NMFS are contacted to evaluate the impacts of the spill. Prior to construction, all mechanical equipment shall be thoroughly inspected and evaluated for the potential of fluid leakage. All questionable motor oil, coolant, transmission fluid, and hydraulic fluid hoses, fitting, and seals shall be replaced. The contractor shall document in writing all hoses, fittings, and seals replaced and shall keep this documentation until the completion of operations. All mechanical equipment shall be inspected on a daily basis to ensure there is no motor oil, transmission fluid, hydraulic fluid, or coolant leaks. All leaks shall be repaired in the equipment staging area or other suitable location prior to resumption of construction activity. Visqueen shall be placed over sandbags used for construction of cofferdams construction to minimize water seepage into the construction areas. The visqueen shall be firmly anchored to the streambed to minimize water seepage.</p>	

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>structure of any native trees removed will be left intact unless otherwise authorized on a case-by-case basis. Diseased, dead, or non-native trees may be removed if necessary.</p> <p>(2) When necessary for worksite preparation, no more than 1/10 (0.1) acres of native riparian shrubs or woody perennials will be removed from a stream's bed, channel, or banks; up to 0.25 acres of mixed native/non-native vegetation may be removed, and if the area is >90% non-native invasive species, up to 2.5 acres of vegetation may be removed.</p> <p>NRCS/SBRCD will achieve revegetation success rates of 70% survival by the end of the first year, and 90% survival by the end of the fifth year. Replanting will be conducted if these rates have not been achieved.</p> <p>Native plants characteristic of the local habitat type will be the preferred alternative for revegetation in natural areas. Non-native, non-</p>	<p>All additional conditions in the FWS and NMFS biological opinions, RWQCB 401 certification, Corps permits, and the DFG streambed alteration agreement will be implemented.</p>	

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>persistent grass mixes (i.e. barley grass) may be used as fast-establishing temporary cover for erosion control while natives are establishing.</p> <p>Any stream bank or portion of the riparian corridor (as defined in section I.F) left barren of vegetation as a result of construction will be revegetated with the goal of restoring the site to pre-construction condition or better by seeding, replanting, or other means such as willow stakes, native trees, shrubs, and/or grasses. Only natural-fiber, biodegradable meshes will be used in erosion blankets and straw or fiber wattles or rolls. Plastic mesh will not be used due to wildlife and fish entrapment hazards.</p> <p>Removal of invasive exotic species will be strongly recommended. Mechanical removal of exotics shall be done in preparation for establishment of perennial plantings. To the greatest extent possible, vegetation will be removed by hand.</p>		

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>To the extent possible, revegetation should be implemented at the same time removal of exotic vegetation occurs. If <i>Arundo donax</i> is removed, cuttings will be disposed of in a manner that will not allow re-establishment to occur.</p> <p><u>Equipment</u> If heavy equipment is required, it will be operated from the top of creek banks or on terraces above the creek bed whenever possible. If access to the work site requires heavy equipment to travel across a stream bed, a rubber tired loader/backhoe is the preferred vehicle; tracked vehicles may be used as a last resort. The amount of time this equipment is stationed, working, or traveling within the creek bed shall be minimized. Heavy equipment shall not be used in flowing or standing water, except to cross a stream or pond to access the work site. When heavy equipment is used, woody debris and vegetation on banks and in the channel outside the</p>		

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>scope of the project shall be minimally disturbed only as necessary for clearance of equipment and laborers.</p> <p>An area designated for equipment storage, short-term maintenance, and refueling will be located a minimum of 50 feet from water bodies. If site conditions or property size make this distance infeasible, these activities will occur at the maximum distance possible from aquatic areas;</p> <p><u>Water Quality</u> Erosion control and sediment detention devices will be incorporated into the project design and installed at all locations where the likelihood of sediment input to streams exists. Sediment collected in these devices will be disposed of away from the collection site and outside riparian areas or flood hazard areas. These devices will be inspected before and after rain events to ensure they are functioning properly.</p> <p>Vehicles will be</p>		

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>inspected for leaks and repaired immediately; contractors shall carry spill packs on-board the equipment; all spills will be cleaned up immediately; major vehicle maintenance and washing will be done off site; hydraulic fluids will not contain organophosphate esters; all spent fluids including motor oil, radiator coolant, or other fluids and used vehicle batteries will be collected, stored, and recycled as hazardous waste off site; dry cleanup methods (i.e. absorbent materials, cat litter, and/or rags) will be used whenever possible; if water is used, the minimal amount required to keep dust levels down will be used.</p> <p>All contaminated spoil, rubbish, creosote-treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from</p>		

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>project related activities, will be prevented from contaminating the soil and/or entering waterbodies.</p> <p>Where necessary to control established stands of exotics or the invasion of exotics into restoration plantings, herbicides will be applied sparingly and in such a way as to be protective of water quality, as well as in accordance with any local agency or manufacturer usage restrictions.</p> <p>Application will be spot applied directly to vegetation and far enough away from waterbodies to prevent discharge or migration to them. Only glyphosate-formula herbicides that do not contain surfactants will be used where there is any potential for migration into waters of the state. Hand removal, rather than pesticides, will be used whenever and wherever possible. Herbicides will not be applied when winds exceed 5 miles per hour or within 96 hours of forecasted rain.</p> <p>Soil amendments may only be used</p>		

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>where poor soil structure would prevent or seriously compromise the establishment of new plantings. Soil amendments may be used on stream banks above the normal high water mark during the year of planting, if necessary.</p>		
<p>Temporary water diversion/ dewatering</p>	<p><u>Not applicable</u> (work in streams not allowed)</p>	<p><u>Allowed with restrictions</u> Work will be conducted when the stream is dry, or if flows exist on site, the workspace shall be isolated from flowing water to prevent sedimentation and turbidity in the stream. Work in flowing water is not allowed. If groundwater seeps into the work area, it will be pumped to an upland site, allowed to settle sufficiently, or a filtering system shall be used to collect the water, so clear water is returned to the creek.</p> <p>Construction or maintenance activities associated with the practices covered under this Program may result in temporary increases in turbidity levels in the stream. In general, these activities would not result in significant</p>	<p><u>Allowed with restrictions</u> All restrictions for TIER II apply, AND: If a pump is used to dewater the workspace in a fish-bearing stream, it will be screened according to NMFS' <i>Juvenile Fish Screening Criteria for Pump Intakes</i>.</p>	<p><u>Allowed with restrictions</u> All restrictions for TIER II (without special status species) or TIER III (with special status species) apply.</p>

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>increases in turbidity levels beyond the naturally occurring, background conditions. Prior to construction activities, sandbag cofferdams, straw bales, silt fences, culverts or visqueen (diversions) shall be installed to divert streamflow away from or around workspace at an appropriate rate to maintain downstream flows during construction. Cofferdams and the stream diversion systems shall remain in place and functional throughout the construction period. If the cofferdams or stream diversion fail, they shall be repaired immediately. When construction is completed, the flow diversion structure shall be removed as soon as possible in a manner that will allow flow to resume with the least disturbance to the substrate.</p> <p>Excavating a channel for the purpose of isolating the workspace from flowing water is not allowed.</p>		
Clearing and snagging		<p>Work conducted under this practice shall be designed to incorporate native</p>		

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>vegetation planting on the stream banks to improve the riparian canopy coverage and shade where instream vegetation is considered problematic.</p>		
<p>Stream bank protection</p>	<p><u>Not applicable</u> (work in streams not allowed)</p>	<p><u>Rock bank protection is not allowed</u>; Other methods of bank protection (vegetative, bio-technical, or a combination of these) are allowed.</p>	<p>Special status species and/or habitat may be present.</p> <p>All additional conditions in the FWS and NMFS biological opinions and the DFG streambed alteration agreement will be implemented.</p>	<p>Rock bank protection is allowed <u>as a last resort</u>. Bank protection methods will be selected in the following order of decreasing preference: 1) vegetation stabilization only; 2) biotechnical methods in which vegetation is incorporated with natural-type structural components such as woody branches, natural rock, logs, natural fibers and natural geotextiles, and other biodegradable temporary geotextiles; and 3) ungrouted rock rip rap with vegetation. If rock is required, the minimum amount needed to achieve the project goals will be used. The amount of rock used will not exceed the maximum size limitations described in Table 2. Only natural-fiber, biodegradable meshes will be used in erosion blankets and straw or fiber wattles or rolls. Plastic mesh will not be used due to wildlife and fish</p>

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
				<p>entrapment hazards.</p> <p>Projects will be designed and implemented in accordance with DFG's <i>California Salmonid Stream Habitat Restoration Manual</i> or in coordination with NMFS and DFG. Biotechnical approaches will be used and incorporation of rock will be minimized. When used, rock will be employed to facilitate natural stream dynamics, achieve equilibrium between erosional and depositional processes, and create a balance between bank slope, channel slope, and sinuosity. Rock will not be used to prevent or interfere with natural stream functions.</p>
Obstruction removal for habitat improvement	<u>Not applicable</u> (work in streams not allowed)	Removal of objects within the riparian corridor will minimize disturbance.	All restrictions for TIER II apply	
Surveys and Monitoring	<u>Surveys</u> Trained SBRC/D/NRCS staff or other qualified individuals will conduct a reconnaissance-level survey as part of the initial site assessment to identify and evaluate whether characteristic habitat for special status	<u>Surveys</u> All restrictions for TIER I apply, AND: <u>Breeding Bird Surveys</u> Surveys by a qualified individual for native breeding birds will be required and carried out prior to ground disturbance, and no	<u>Surveys</u> All restrictions for TIER II apply, AND: If habitat for special status species is found in the project area, a qualified individual (approved by FWS, NMFS and DFG, appropriate) will complete a pre-construction survey to determine if species or	All restrictions for TIER II (without listed species) or TIER III (with special status species) apply.

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
	<p>species occurs in proposed work areas. If special status species habitat is found in the project area, TIER III environmental protection and mitigation measures will apply.</p> <p><u>Monitoring</u> A qualified monitor will be on site during construction activities to ensure implementation of permit conditions. The monitor will halt work if necessary to ensure compliance and to protect resources. Prior to ground disturbance, the monitor will walk through the construction area so wildlife present in the work area can move out of harm's way.</p> <p>Qualified individuals will not be required for monitoring TIER I projects.</p>	<p>more than 30 days prior to construction, if:</p> <p>Riparian habitat will be affected by the project, the habitat could support breeding birds, and the project will be implemented during breeding bird season (see Timing restrictions below).</p> <p>If any active bird nests are found, a work exclusion zone buffer of 250 feet will be established, clearly delineated, and maintained around active nests until the breeding season has ended, or a qualified individual determines that a) the birds have fledged and are no longer reliant on the nest or parental care for survival, or b) the nest is abandoned.</p> <p><u>Monitoring</u> All restrictions for TIER I apply, AND:</p> <p>Qualified individuals will be required for monitoring if breeding bird surveys are conducted and exclusionary zones are established; the monitors will ensure that active nests are</p>	<p>habitat will be disturbed by planned activities. This individual will use approved protocols to conduct the surveys of each site identified during the reconnaissance survey as containing potential habitat OR assume presence of the species if representative habitat is present.</p> <p><u>Monitoring</u> All restrictions for TIER II apply, AND:</p> <p>Each project site must be monitored during construction to prevent adverse effects to listed salmonids and/or critical habitat. A biologist or on-site monitor shall evaluate work activities and instream habitat a minimum of three times per week during construction for the purpose of identifying and reconciling any condition that could adversely affect salmonids or their habitat. Project documentation shall be forwarded to NMFS and DFG.</p> <p>For special status species, a qualified individual will ensure that all conditions in the FWS and NMFS biological opinions and the DFG streambed alteration</p>	

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>not disturbed and nest abandonment does not occur due to construction activities.</p> <p><u>Monitoring of temporary water diversions</u> A qualified individual will be on site for monitoring during any activities related to water diversion. The monitor will inspect the diversion system regularly to ensure proper functioning and protection of water quality and biological resources.</p>	<p>agreement are implemented. The monitor will halt work if necessary to ensure compliance and to protect special status species during construction.</p> <p>Qualified individuals will be required for monitoring.</p>	
Timing	<p>Project construction will avoid the primary rainy season and consider wildlife usage in the project area. The general construction season will be <u>April 15 to October 31</u>. All earthmoving activities will be completed by October 31, with the exception of revegetation activities, which may occur until November 30.</p>	<p>Project construction will entirely avoid the rainy season and consider wildlife usage in the project area. The general construction season will be <u>June 15 to October 31</u>. All earthmoving activities will be completed by October 31, except revegetation, which may continue until November 30. Work outside this period may be authorized by NMFS and DFG on a site-specific basis, provided work would be completed prior to the first winter rains and stream flows.</p> <p>Work will be timed to avoid disturbing breeding birds in</p>	<p>All restrictions for TIER II apply, AND:</p> <p>Where special status species could be impacted by construction activities, work seasons may be further restricted by FWS, NMFS and DFG.</p>	<p>All restrictions for TIER II (without special status species) or TIER III (with special status species) apply.</p>

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
		<p>native habitat. Projects that could affect breeding birds will not begin until September 15, or until a qualified individual determines that a) the birds have fledged and are no longer reliant on the nest or parental care for survival, or b) the nest is abandoned.</p>		
Planning	<p>Project design, implementation, monitoring, and maintenance will follow the NRCS planning process, as outlined in Section I.</p>	<p>All requirements for TIER I apply</p>	<p>All requirements for TIER II apply, AND: If work is to be performed in a fish-bearing stream, SBRCD/NRCS will use other appropriate planning tools such as the DFG <i>California Salmonid Stream Habitat and Restoration Manual</i> and <i>Culvert Criteria for Fish Passage</i>, and NMFS <i>Guidelines for Salmonid Passage at Stream Crossings</i>.</p>	<p>All restrictions for TIER II (without special status species) or TIER III (with special status species) apply AND:</p> <p>SBRCD/NRCS will use the <i>Stream Impacts Avoidance Decision Tree</i> contained in the RWQCB's <i>A Primer on Stream and River Protection for the Regulator and Program Manager</i> during the site assessment and alternatives selection process for projects that could impact stream channel stability. Use of this planning tool is intended to minimize unintentional secondary impacts on water surface elevations, velocities, erosion/scour and deposition, sediment transport through the design reach, and length of stream impacted.</p>

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
Training	<p>A training session will be conducted for SBRC/D/NRCS staff involved with any phase of the Program. The training will be based on the handbook <i>Procedures for Complying with Multiple Permits: A Guide for Conservation Planners</i>. Measures required to avoid and/or minimize impacts to biological and cultural resources will be emphasized.</p> <p>All project workers and persons associated with the project, including participating cooperators, contractors, and designated monitors, will attend a training session prior to any ground-disturbing activities. Conditions of permits and agreements, roles and responsibilities of the parties, and consequences for non-compliance will be emphasized.</p>	All requirements for TIER I apply.	<p>All requirements for TIER II apply, AND:</p> <p>SBRC/D/NRCS staff making specialized habitat or species presence/absence determinations will receive training approved by FWS, NMFS and DFG to make such determinations, or the determinations will be made by other qualified individuals.</p> <p>Training will include information about special status species that could be encountered. At a minimum, the training will include: the natural history of any special status species that may occur on site; how to recognize these species and their habitats; protection afforded special status species by the ESA and CESA; measures to be followed during construction and maintenance to protect these species and habitats; and the necessity of strict adherence to all conditions and requirements contained in the programmatic permits and the Cooperator Agreement.</p>	All restrictions for TIER II (without special status species) or TIER III (with special status species) apply.
Notification and Reporting	<u>Notification</u> SBRC/D/NRCS will provide electronic	<u>Notification</u> All requirements for TIER I apply, AND:	<u>Notification</u> All requirements for TIER II apply, AND:	<u>Notification</u> All requirements for TIER III apply.

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
	<p>Pre-Construction Notification (PCN) for each project to regulatory agencies with jurisdiction over project activities (hard-copy notification will be provided for agencies with such requirements). Notification will include the following information: project location; the TIER the project falls under and why; project description and purpose/need (including environmental benefits expected); environmental setting (surrounding habitat, adjacent land uses); approved practices to be installed; project dimensions (length, width, volume of soil disturbance); and summary of any survey results.</p> <p>Projects may begin 10 working days after electronic notifications have been emailed, unless other timelines are required or specified by agencies.</p> <p><u>Reporting</u> SBRCD/NRCS will report the status of all projects to permitting agencies in the form of an annual post-construction report.</p>	<p>SBRCD/NRCS will circulate to jurisdictional agencies a written preliminary PCN. These agencies will provide comments or recommended revisions within 30 working days. SBRCD/NRCS will incorporate agency recommendations into the project description and may begin work without circulating a Final PCN. If discussions concerning recommended agency modifications are necessary, SBRCD/NRCS will prepare and circulate a Final PCN for final project approval; work may begin 10 working days after the Final PCN is sent.</p> <p>Notifications will include a description of proposed water diversion or silt control, if working in a perennial stream and if flows will be isolated from the workspace.</p> <p><u>Reporting</u> All requirements for TIER I apply AND: Reporting will include a summary of all stream diversion and</p>	<p>Details will be provided on special status species/habitat present in relation to the work area, potential impacts to special status species/habitat, and all applicable environmental protection and mitigation measures.</p> <p><u>Reporting</u> All requirements for TIER II apply, AND: Reporting will include an account of any impacts to special status species habitat, any individuals of special status species encountered, and any injuries or mortalities of special status species.</p>	<p><u>Reporting</u> All requirements for TIER III apply, AND: Reports will include alternatives considered and justification for using rock. <u>Reporting</u> All requirements for TIER III apply.</p>

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
	<p>The annual report will be due by January 31 of each year during the term of the Program. The report will include the following information: project name or sponsoring organization; descriptions of each project purpose and area affected; improvements to water quality and/or biological resources; photo-documentation comparison of pre-construction and post-construction condition; monitor's observations and adjustments made to existing practices as result of monitoring; reseeding and revegetation efforts; and other pertinent information. The report will also include a review of the status of all previous habitat restorations that are being maintained.</p> <p>After five years of implementation of the Program, SBRCD/ NRCS shall compile a comprehensive assessment of the Program and all projects constructed to that point. The assessment will summarize the types of projects and conservation practices installed,</p>	dewatering activities.		

PROJECT COMPONENT (TYPE OF WORK PROPOSED)	TIER I	TIER II	TIER III	TIER IV
	<p>and discuss the Program's successes and challenges, including the regulatory process. The compiled data will be utilized to provide the agencies with a general overview of the Program's effectiveness, as well as any opportunities for its improvement, at the halfway point of its 10-year term.</p>			

In planning for and implementing the Program, SBRC/D/NRCS will follow all standards and specifications contained in the NRCS FOTG for the 15 proposed conservation practices (see Appendix A). In addition, the following practice-specific environmental protection and mitigation measures will be mandatory for all projects to which they are applicable.

Table 11. Practice-specific Environmental Protection and Mitigation Measures

<p>Access Road (560)</p>	<ul style="list-style-type: none"> • Road improvements will be based on the <i>Handbook for Forest and Ranch Roads: A Guide for Planning, Designing, Constructing, Reconstructing, Maintaining and Closing Wildland Roads</i> by Weaver and Hagens. • During the conservation planning process, resource conditions will be considered to determine if relocation of an access road to a more stable site is preferable to continuing to treat a poorly located, existing access road. If this is determined to be the more environmentally beneficial and economically feasible solution, a new access road may be constructed. The location of the new road will be based on many factors, including avoidance of prime agricultural land and steep slopes, minimizing impacts to sensitive habitats, and limiting tree removal and grading. • Additional environmental protection and mitigation measures may be requested by the regulatory agencies.
<p>Clearing and Snagging (326)</p>	<ul style="list-style-type: none"> • Additional environmental protection and mitigation measures may be requested by the regulatory agencies.
<p>Planting (342, 422, 391, 612, 380) and Restoration and</p>	<ul style="list-style-type: none"> • Measures will be taken to plant a sufficient diversity of native species to ensure that monocultures are not established as a result of this practice. Non-native invasives will not be planted.

Management of Declining Habitats (643)	<ul style="list-style-type: none"> • To meet success criteria for revegetation or invasive plant removal, maintenance will occur only within documented temporal limitations. • Additional environmental protection and mitigation measures may be requested by the regulatory agencies.
Fence (382)	<ul style="list-style-type: none"> • Fence practice will not be installed where fencing would block fish passage, or capture debris or otherwise increase flood risk. Fence installation will not limit movement and foraging opportunities for non-target wildlife species as requested by DFG.
Grassed Waterway (412)	<ul style="list-style-type: none"> • Grassed waterways are designed to convey the runoff associated with the contributory area along a prescribed slope to avoid erosion caused by the concentrated flow. The waterway may not divert water out of the natural drainage.
Irrigation System, Tailwater Recovery (447)	<ul style="list-style-type: none"> • The capacity of conveyance facilities shall be determined by an analysis of the expected runoff rate, the planned irrigation pit or regulating reservoir storage capacity, and the anticipated irrigation application. Additional measures will be developed with input from the CCRWQCB.
Pipeline (516 or 430DD)	<ul style="list-style-type: none"> • Pipeline shall be installed and maintained only when a streambed is dry or dewatered. Trenching associated with this practice must be a minimum of three feet deep and will be deep enough to ensure that scour does not eventually reach the surface of the pipeline. • If an open-trench method is used to install the pipeline when working in a waterway, the top six to 12 inches of soils and material shall be removed and stockpiled separately. This stockpiled material will be replaced at the end of construction and the stream channel returned to pre-project grade. • In the rare circumstance that trenches must be dewatered (i.e. because of unanticipated seepage into the trench), a pump will be used to dewater the trench and water will be pumped to a detention area outside of the channel. No trenching activities will occur during a storm event.
Obstruction Removal (500)	<ul style="list-style-type: none"> • Wherever possible, hand labor will be used, however, heavy equipment such as mechanical excavators may be employed in some projects, particularly when removal of larger items such as cars and appliances is required. Large objects will be lifted out of the area, ensuring the obstruction is kept upright during removal and is not pulled, dragged, or pushed to minimize potential impacts to the aquatic and terrestrial habitats. If the obstruction is easily accessible and/or an access road is adjacent to the work site, equipment such as a boom will be used to lift the obstruction out of the area.
Sediment Basin (350) and Water and Sediment Control Basin (638)	<ul style="list-style-type: none"> • Where water and sediment control basins create marshy conditions and attract nesting birds and other wildlife, maintenance will occur only after August 1.

	<ul style="list-style-type: none"> • Sediment basins shall not be constructed in a stream channel or other permanent water bodies. Where construction of a sediment basin includes a pipe or structure that empties into a stream, an energy dissipater shall be installed to reduce bank scour unless the pipe is sized to allow “sheet flow” and prevent erosion.
Spring Development (574)	<ul style="list-style-type: none"> • The amount of flow diverted from the spring to the intended use will be minimized, preserving as much flow as possible to the original wetted area or watercourse. Sufficient overflow will be provided to ensure that the habitat values of the original wetted area are not lost.
Stream Habitat Improvement and Management (395)	<ul style="list-style-type: none"> • Design of in-stream structures shall be compatible with the dynamic nature of watercourse to encourage natural geomorphic processes as much as possible. In-stream structures in fish-bearing streams will be designed in consultation with staff from NMFS and DFG. • Care will be taken when planting willows to improve instream habitat so that monocultures are not created at the expense of diverse riparian habitat.
Streambank Protection (580)	<ul style="list-style-type: none"> • Work will be consistent with DFG’s <i>California Salmonid Habitat Stream Restoration Manual</i>. • No concrete, sackcrete, grouted rock, gabions or excessive amounts of rock will be used in any known fish-bearing waterway for streambank protection, stream habitat improvement and management, underground outlet discharge points or any other purpose. No chemically treated timbers shall be used for channel stabilization structures, bulkheads, log crib walls, or other instream structures. However, these techniques and materials can be used above the ordinary high water mark in non fish-bearing streams. • Commercial sealants may be applied to the poured concrete surface where difficulty in excluding water flow for a long period may occur. If sealant is used, water shall be excluded from the site until the sealant is dry.
Structure for Water Control (587)	<ul style="list-style-type: none"> • Structures at stream crossings will be consistent with DFG’s <i>Culvert Criteria for Fish Passage</i> and NMFS <i>Guidelines for Salmonid Passage at Stream Crossings</i>.
Underground Outlets (620)	<ul style="list-style-type: none"> • If a pipe or structure empties into a stream, a properly sized energy dissipater shall be installed where necessary to reduce bank scour and bank erosion.

B. General Environmental Protection and Mitigation Measures for Special Status Species

Unless more specific measures are identified for individual species (see below), the following general species protection measures will apply to all practices that could impact special status species during the Program:

1. The project manager at each site shall be familiar with all environmental protection and mitigation measures prior to construction. The project manager/supervisor for each project shall possess a copy of the Program's environmental protection and mitigation measures, and shall ensure that the environmental protection and mitigation measures are available on site to all workers.
2. Prior to the onset of Program activities, project participants, contractors and cooperators shall be provided information on the special status species in the project area, and all species protection measures included in the Program. Briefings will be conducted as needed in order to maintain well-coordinated and environmentally sensitive projects.
3. SBRCD/NRCS staff or other qualified individuals will be trained and familiar with the preferred habitats of the species described in this section.
4. SBRCD/NRCS staff or other qualified individuals will be trained to and will identify and evaluate characteristic habitat conditions for special status species in proposed work areas during the pre-project design planning and site assessment stage. Staff will utilize available data resources including the CNDDDB and other DFG databases, field observations not captured in the CNDDDB, FWS and NMFS databases, survey protocols and information, the CNPS database, GIS range and habitat mapping, and other information.
5. SBRCD/NRCS shall submit names and credentials of individuals who will conduct species-specific monitoring, surveys and transport of protected species to the FWS, NMFS and DFG for their consideration at least 30 days prior to the onset of activities that they are being authorized to conduct. The qualified individuals will demonstrate experience in handling sensitive species and be familiar with the species' habitat requirements. FWS, NMFS and DFG will attempt to respond within 30 days as to whether or not those individuals whose names and credentials have been submitted for review are approved to proceed with species-specific surveys or transport of named species.

C. Species-specific Environmental Protection and Mitigation Measures

Numerous species listed as threatened or endangered under the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA), as State Species of Special Concern or State Fully Protected Species by DFG, or as rare by the California Native Plant Society (CNPS), occur or potentially occur in the Program area. Some of these species are affected by degraded water quality and aquatic and riparian habitat, including South Central California Coast (SCCC) Distinct Population Segment (DPS) steelhead (*Oncorhynchus mykiss irideus*), California red-legged frog (*Rana aurora draytonii*), California tiger salamander (Central California DPS, *Ambystoma californiense*), Vernal pool fairy shrimp, and bird species dependent on riparian forest including Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) and Least Bell's vireo (*Vireo bellii pusillus*). The San Joaquin kit fox (*Vulpes macrotis mutica*), Blunt-nosed leopard lizard (*Gambelia sila*) and numerous rare plant species can be found in upland locations where restoration and erosion control efforts may occur under the Program.

Specific actions to avoid, minimize or mitigate adverse effects to Federally Listed Plant Species
(Coyote ceanothus, Santa Clara Valley dudleya, San Benito evening primrose, San Joaquin woollythreads, Metcalf Canyon jewel flower)

1. During the project assessment, SBRCD/NRCS will assess if suitable habitat is present within the project area for the federally threatened and endangered plant species listed in Table 6.
2. If suitable habitat exists or a listed species is found within the project area, a qualified individual (approved by FWS) will evaluate characteristic habitat conditions for the listed species during pre-project design.
3. When listed plant species are found in a project area, they will not be disturbed and a buffer zone of 20 feet will be established around the plants to avoid impacts to the plants. Removal of invasive, non-native plants by hand (i.e. using hand tools, hand pulling, etc.) within this buffer may occur and is recommended to protect listed plants.
4. If impacts to listed plant species cannot be avoided and the 20-foot buffer maintained, FWS will be notified and options to offset potential effects will be proposed as part of the project.
6. To the greatest extent feasible, no pesticides or fertilizers shall be used in the buffer zone.
7. Grading of adjacent portions of the project site shall not alter surface and subsurface hydrologic processes to the detriment of the species.
8. No sod-forming or non-native invasive plants will be planted.
9. The introduction or spread of invasive non-native plants will be discouraged and their removal strongly recommended.

Specific actions to avoid, minimize or mitigate adverse effects to the Bay checkerspot butterfly

1. During the project assessment, SBRCD/NRCS will first determine if serpentine soils are present in the project area.
2. If serpentine soils are present, SBRCD/NRCS will conduct a habitat assessment for the larval host plant (*Plantago erecta*) and nectar plants used by adults.
3. Surveys to confirm the presence of *Plantago erecta* will be conducted during the blooming season (March to May).
4. If larval host plants or nectar plants utilized by adults are present, a qualified individual (approved by FWS) will assess whether the butterfly could be present on site and determine the quality of three habitat components (larval food plants, hilltops for mating activities, and adult nectar plants).

5. If the butterflies are found, or moderate to good butterfly habitat is present, the project will be designed to avoid disturbing those portions of the site providing habitat. If such a design is not possible, the project will be designed to allow only temporary habitat disturbance and to minimize such disturbance. The following protective measures will be incorporated into the project design.

- a. Construction activities will begin after July 15.
- b. The width of a buffer zone around concentrations of this species and habitat features will be determined for each project based on hydrology, connectivity with other occurrences, movement of pollinators/dispersers, and other factors.
- c. Grading of adjacent portions of the project site will not alter surface and subsurface hydrologic processes to the detriment of the species.
- d. No pesticides or fertilizers will be used within the buffer zone to hasten or improve the growth of plantings associated with the practices.
- e. Disturbance of high-quality potential habitat will be avoided, to the maximum extent possible.
- f. No sod-forming or non-native invasive plants will be planted.

Specific actions to avoid, minimize or mitigate adverse effects to SCCC steelhead

To avoid or minimize any potential negative effects from project construction and operation on SCCC steelhead and aquatic habitat in the watershed, the following environmental protection measures will be incorporated when designing and implementing projects.

1. Temporary Stream Diversion and Dewatering Requirements

To protect steelhead in the streams of the Upper Pajaro River Watershed, the following restrictions beyond the environmental protection measures specified in the section II tiered matrix apply to work in all streams where steelhead are known or believed to spawn and rear (presently believed to include Uvas and Llagas Creeks, Pacheco Creek, Arroyo dos Picachos, Bird Creek, Pescadero Creek and tributaries):

- a. All projects undertaken in each sub-watershed within a single year must be separated by at least one-quarter mile of channel length to avoid excessive impacts to fish within one reach of stream.
- b. The total dewatered area cannot exceed 300 linear feet per project.
- c. An approved screen pump intake will be used to divert water from the downstream end of the upstream cofferdam around the construction site and will have a pipe outlet downstream of the downstream cofferdam. If employed, pumps will be screened in accordance with NMFS' *Fish Screening Criteria for Anadromous Salmonids* for mesh size (3/32-inch maximum), approach and sweeping velocities, and other specifications. Both the outside of the basin and the pump will be screened with the mesh to ensure that fish are not allowed to enter the diversion structure. The water diversion pipe will consist of a large plastic HDPE or ABS pipe or similar material, and of a sufficient diameter to

safely accommodate expected flows at the site during the full construction period. The pipe will be protected from construction activities to ensure that bypass flows are not interrupted. An additional sump pump may also be used to remove subsurface water flowing into the construction area. Continuous flow downstream of the work site will be maintained at all times during construction. When construction is completed, the flow diversion structure shall be removed in a manner that allows flow to resume with a minimum of disturbance to the substrate.

- d. In fish-bearing streams, a qualified individual approved by NMFS shall be on site during dewatering, stream diversion, and removal or decommissioning of the temporary diversion facilities, and as needed at other times to protect fish, other aquatic species and water quality during project construction activities.

2. Fish Capture and Relocation Requirements

To minimize impacts to anadromous salmonids and other aquatic species from construction activities in fish-bearing streams, fish and other native species will be captured and relocated by a qualified individual holding a valid scientific collection permit from NMFS prior to the commencement of construction. NMFS will be notified one week prior to fish capture and relocation activities, if possible, to provide NMFS Santa Rosa office staff an opportunity to attend. At least 72 hours, or three days, will be provided NMFS staff to approve the qualified individual whom the SBRCD/NRCS proposes will conduct fish capture and relocation activities prior to construction.

Immediately prior to the beginning of construction work, the qualified individual will determine if any fish are present in the project vicinity. An assessment will be made following standard protocols described in the DFG *California Salmonid Stream Habitat Restoration Manual* and other documents, and utilizing visual streambank and underwater observations and seine net surveys. The entire project area will be assessed if necessary, including all pools, riffles and runs, as well as upstream and downstream of the site. If prior to construction, no fish are detected following the assessment, fish capture and relocation measures will not be implemented. However, a qualified individual will survey the site periodically, and will be available on-call, during the construction process to ensure that fish have not moved into the work area. If fish are observed after construction commences, work will be stopped immediately and appropriate fish protection measures taken.

If fish are determined to be present in the immediate project vicinity, they will be encouraged to move downstream from the upstream end of the site with the aid of weighted seine nets operated by the qualified individual with assistants as needed. Once the fish have been relocated to the downstream end of the work site, barrier seines will be placed across the creek at the downstream end of the site to prevent fish from moving back upstream. At the upstream end of the site, a barrier seine will be placed across the creek immediately upstream of the cofferdam and pump location to prevent fish from entering the project area.

Once the barrier seines are in place and fish have been removed from the construction site, cofferdams or other similar water diversion structures will be erected immediately downstream

of the upper seine barrier and immediately upstream of the lower seine barrier. When the cofferdams are in place and the construction area is isolated, the qualified individual will capture and relocate to nearby suitable habitat any fish remaining with the work area.

The following methods shall be used if fish are relocated using seining:

- a. A minimum of three passes with the seine shall be utilized to ensure maximum capture probability of salmonids within the action area.
- b. If an adult *O. mykiss* (steelhead or resident rainbow trout) is detected, NMFS will be contacted, if possible, prior to capture and relocation of the adult fish.
- c. All captured fish shall be processed and released prior to each subsequent pass with the seine.
- d. The seine mesh shall be adequately sized to ensure fish are not gilled during capture.

The following methods shall be used if fish are relocated using electrofishing techniques. If any of the following standards cannot be met (in particular, the SBRCD/NRCS expect that water conductivity and temperature may occasionally exceed the limits specified in item (c) below due to compromised water quality), NMFS will be contacted and the best course of action mutually determined:

- a. The backpack electrofisher shall be set as follows when capturing fish:

	<u>Initial</u>	<u>Maximum</u>
Voltage	100 Volts	300 Volts
Duration	500 μ s (microseconds)	5 μ s
Frequency	30 Hertz	70 Hertz

- b. A minimum of three passes with the electrofisher shall be utilized to ensure maximum capture probability of salmonids within the area proposed for dewatering.
- c. No electrofishing shall occur if water conductivity is greater than 350 microSiemens per centimeter (μ S/cm) or when instream water temperatures exceed 18°C. Only direct current (DC) shall be used.
- d. A minimum of one assistant shall aid the fisheries biologist by netting stunned fish and other aquatic vertebrates.
- e. Salmonids will be relocated to pools at least one foot deep. Every effort shall be made to distribute captured fish throughout the flowing portion of the stream (a minimum distance of 100 feet) to avoid overcrowding. Relocation pools shall be identified before the onset of relocation activities.

Sculpins (*Cottus sp.*) and Pacific giant salamanders (*Dicamptodon ensatus*) collected and relocated during electrofishing activities shall be relocated with care taken to avoid concentrating them in one area. Particular emphasis shall be placed on avoiding relocation of sculpins and Pacific giant salamanders into the salmonid relocation pools. To minimize predation on salmonids, these species shall be distributed throughout the wetted portion of the stream.

3. Stream Monitoring

For work proposed in fish-bearing streams, a NMFS-approved individual will act as a biological monitor during construction. The individual will monitor construction activities, instream habitat, and the performance of sediment control devices/materials. The biological monitor will have the authority to halt work activity and recommend measures for avoiding adverse effects. Work activity will not recommence until the situation is resolved to the satisfaction of the biological monitor.

If unforeseen circumstances arise during project implementation that may lead to the disturbance or harm of steelhead beyond the number or level anticipated in the Incidental Take Statement issued with NMFS' biological opinion for the Program, operations will cease immediately and NMFS will be contacted before work can continue.

a) If any SCCC steelhead are found dead or injured as a result of relocation activities at a project work site, SBRC/D/NRCS shall contact the NMFS Santa Rosa Area Office at (707) 575-6050 or 575-6064. Activities resulting in take will be reviewed to determine if additional protective measures are required. All federally listed species mortalities must be retained, placed in an appropriately sized whirl-pak or zip-lock bag, labeled with the date and time of collection, fork length, location of capture, and frozen as soon as possible. Frozen samples must be retained until specific instructions are provided by NMFS.

b) The project manager at each site shall be familiar with all environmental protection and mitigation measures prior to construction. The project manager/supervisor for each project shall possess a copy of the Program's environmental protection and mitigation measures, and shall ensure that the environmental protection and mitigation measures are available on site to all workers.

c) In order to monitor the impact to steelhead, and track any incidental take, SBRC/D/NRCS shall submit in their annual report the following project-specific summaries:

- All fish relocation activities, including the number and species of fish relocated, as well as any injured or killed.
- The number and type of conservation practices implemented within the stream channel.
- The length of streambank (feet) protected and stabilized.
- The number of culverts replaced or repaired, including the number of miles of restored access to unoccupied salmonid habitat.
- The distance (feet) of aquatic and riparian habitat disturbed at each project site.

This report shall be submitted to NMFS by January 31 on an annual basis during the 10-year duration of the Program.

Specific actions to avoid, minimize or mitigate adverse effects to the California red-legged frog (CRLF)

1. During the project assessment, SBRCD/NRCS will assess whether either aquatic habitat, with emergent vegetation and nearby deep water (>2 feet) and/or well-vegetated terrestrial habitat, with or without mammal burrows and leaf litter, occurs in the project area.
2. If habitat is present, to avoid impacts to breeding adults or egg masses, construction activities will only be implemented between July 1 and October 31, unless otherwise agreed to by NRCS and FWS. In the rare case that egg masses are found after July 1, SBRCD/NRCS will make every attempt to postpone project construction until the egg masses hatch.
3. A qualified individual (approved by FWS and DFG) will conduct a pre-construction survey no more than 48 hours before the start of construction activities. The approved individual will look for the species, evaluate the likelihood of usage, and determine if additional monitoring is needed during construction.
4. A qualified individual will have the authority to halt work activities that may affect the species, and to translocate individuals to a previously identified suitable location.
5. For projects conducted in and adjacent to streams or ponds, the following protection measures will be implemented:
 - A. Prior to the onset of any project activities, individuals approved by FWS and DFG will identify appropriate areas to receive translocated California red-legged frog adults and tadpoles. These areas will be in proximity to the capture site but outside any area likely to be adversely impacted by project activities, support suitable vegetation, and be free of exotic predatory species (e.g., bullfrogs (*Rana catesbeiana*), crayfish (*Procambarus* sp.), etc.) to the best of the FWS- and DFG-approved individual's knowledge.
 - B. Individuals approved by FWS and DFG will survey the project area for California red-legged frogs twice at night and twice during daylight hours within 3 days prior to any equipment staging, construction, or other ground-disturbing activities. Any California red-legged frogs observed that may be at risk of injury or mortality due to project-related activities will be captured and moved to one of the identified translocation sites. Only individuals approved by FWS and DFG will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs. In the rare case that egg masses are found, every attempt will be made to wait until the egg masses hatch before transporting them.

Specific actions to avoid, minimize or mitigate adverse effects to the California tiger salamander (CTS)

If the project area is located within the range of the CTS, the following protection measures will be implemented:

1. During the project assessment, a qualified individual (approved by FWS and DFG) will assess if CTS may occur in the project area.
2. If habitat is present, construction activities will only be implemented between July 1 and October 31, unless otherwise agreed to by NRCS and FWS. In the rare case that egg masses are found after July 1, SBRCD/NRCS will make every attempt to postpone project construction until the egg masses hatch.
3. If habitat is present, individuals approved by FWS and DFG will survey the project site for California tiger salamanders less than 24 hours prior to initiation of construction. These survey activities will include using dip-nets to sample all aquatic areas within the proposed project area. Sampling will occur two times before construction begins; once during the first two weeks of May, and once during the last two weeks of May. If any life stage of the species is found, the individual approved by FWS and DFG will contact the FWS and DFG to determine if moving any of these life-stages is appropriate. If the FWS and DFG approve of moving animals, the approved individual will be allowed sufficient time to move California tiger salamanders from the work site before work activities begin. California tiger salamanders that are captured and moved will be translocated to the nearest suitable habitat that will not be impacted by project activities.
4. Capture and translocation of California tiger salamanders will be performed only by individuals approved in advance by the FWS and DFG (if CTS becomes State listed during Program implementation). While in captivity, individuals of this species will be kept in a cool, moist, aerated environment, such as a bucket containing a damp sponge. Containers used for holding or transporting this species will not contain standing water.
5. Silt fencing utilized for erosion control conducted within 0.62 miles (1000 meters) of a known or potential breeding site must be timed, to the maximum extent practicable, to avoid times of year when CTS are most likely to be encountered migrating across uplands to get to breeding ponds or underground refugia. These times will be variable, depending on the location and year's precipitation, but would typically include the wet season (November through February-March) and when larvae have metamorphosed and are leaving natal pools (May-June through August, depending on pool drying).
6. Qualified individuals will record all pertinent information when CTS are relocated, including the number of individuals captured, site of capture, site of relocation, habitat at capture, and activity for which the relocation was implemented.
7. Qualified individuals will use the standards for capturing CTS and disinfection of equipment and clothing contained in the FWS' *Interim Guidance on Conducting Site Assessments and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander*.

Additional species protection measures for CRLF and CTS:

- Prior to the onset of activities that result in disturbance of potential CTS or CRLF habitat or individuals, a qualified individual will conduct a training session for all

construction personnel. At a minimum, the training will include: a description of the CTS and/or CRLF; a description of the two species' habitats; the importance of the CTS, and/or RLF and their habitats; the general measures that are being implemented to conserve the CTS and/or CRLF as they relate to the project; and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session.

- A qualified individual will monitor the work site until all removal of CTS and/or CRLF, instruction of workers, and habitat disturbance have been completed. After this time, SBRCD/NRCS will designate a person to monitor on-site compliance with all protection measures. The qualified individual will ensure that this monitor receives the training outlined above and also in the identification of CTS and/or CRLF. The qualified individual and the monitor will have the authority to halt any action that might result in impacts that exceed the levels anticipated by FWS in its biological opinion for the Program. If work is stopped, SBRCD/NRCS will notify FWS and DFG immediately.
- Nets or bare hands may be used to capture CRLF and CTS. Qualified individuals will limit the duration of handling and captivity and will not use soaps, oils, creams, lotions, repellants, or solvents of any sort on their hands before and during periods when they are capturing and translocating these species.
- To avoid transferring disease or pathogens between aquatic habitats during the course of surveys or handling of CRLF and CTS, qualified individuals will follow the Declining Amphibian Population Task Force's Code of Practice.
- All diversion or dewatering activities in CTS or CRLF Critical Habitat or other known habitat, including restoration of flows after construction, will be monitored by a qualified individual (approved to translocate CRLF and/or CTS adults, tadpoles, or egg masses imperiled by the action). The qualified individual will assist project personnel in selecting the point(s) at which diversion and dewatering would least disrupt stream flow, and be on site when stream flows are restored to monitor the area for stranded CRLF and/or CTS.

Conservation Recommendations from FWS -- Measures that are not required but that are recommended if feasible.

CR1: A qualified individual will permanently remove, from within the project area, any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes, to the maximum extent possible.

CR2: If a project involves excavation in the watershed of known or potential breeding habitat for the CRLF or the CTS, SBRCD/NRCS will evaluate, as post-project monitoring, whether an increase in sedimentation occurs in the breeding habitat.

Specific actions to avoid, minimize or mitigate adverse effects to the Western yellow-billed cuckoo

1. During the project assessment, SBRCD/NRCS will assess if Western yellow-billed cuckoo nests are present in the project area. Survey protocols specified by FWS and available at:

<http://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/LBVireo.2001.protocol.pdf> will be followed.

2. If nests are present or a Western yellow-billed cuckoo is detected or believed to be present during the project assessment, SBRCD/NRCS will postpone construction until after September 15 to avoid the nesting season. A buffer zone of at least 0.25 miles will be provided from nests or individuals.
3. If it is not possible to schedule removal of vegetation or construction at potential nesting sites as outlined in the measure above, pre-construction surveys for Western yellow-billed cuckoo and other nesting birds in and adjacent to the project area will be conducted by a qualified individual (approved by FWS and DFG) knowledgeable in Western yellow-billed cuckoo identification and biology. Two pre-construction surveys for nesting Western yellow-billed cuckoo will be conducted prior to vegetation removal. The second survey will be conducted no more than seven days prior to the initiation of project-related activities. If a Western yellow-billed cuckoo is detected during these surveys, SBRCD/NRCS will notify the FWS and DFG and no work will occur without approval.
4. If at any time an active Western yellow-billed cuckoo nest is found within a 10-mile radius of the project area, the project will be halted and the FWS and DFG will determine if additional protection measures are required. If SBRCD/NRCS learns of such an occurrence, it will notify FWS and DFG. If FWS or DFG learn of such an occurrence, they will notify SBRCD/NRCS.
5. Special care will be given to stands of riparian habitat of a size greater than 0.5 acres. If vegetation removal is proposed in and around stands of this size, riparian vegetation will be cleared by hand if possible, leaving as much as possible of the root wad and base of plants intact. Following completion of construction, poles and branches will be replanted on stream banks.
6. There will not be any incidental take of Western yellow-billed cuckoo proposed under the Program.

Specific actions to avoid, minimize or mitigate adverse effects to the Least Bell's vireo

1. During the project assessment, SBRCD/NRCS will assess if Least Bell's vireo nests are present in the project area. Survey protocols specified by FWS and available at <http://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/LBVireo.2001.protocol.pdf> will be followed.
2. If nests are present or a Least Bell's vireo is detected or believed to be present during the project assessment, SBRCD/NRCS will postpone construction until after September 15 to avoid the nesting season. A buffer zone of at least 0.25 miles will be provided from nests or individuals.
3. If it is not possible to schedule removal of vegetation or construction at potential nesting sites as outlined in the measure above, pre-construction surveys for Least Bell's vireos and other nesting birds in and adjacent to the project area will be conducted by a qualified individual (approved by FWS and DFG) knowledgeable in Least Bell's vireo identification and biology.

Two pre-construction surveys for nesting Least Bell's vireos will be conducted prior to vegetation removal. The second survey will be conducted no more than seven days prior to the initiation of project-related activities. If a Least Bell's vireo is detected during these surveys, SBRCD/NRCS will notify the FWS and DFG and no work will occur without approval.

4. If at any time an active Least Bell's vireo nest is found within a 10-mile radius of the project area, the project will be halted and the FWS and DFG will determine if additional protection measures are required. If SBRCD/NRCS learns of such an occurrence, it will notify FWS and DFG. If FWS or DFG learn of such an occurrence, they will notify SBRCD/NRCS.

5. Special care will be given to stands of riparian habitat of a size greater than 0.5 acres. If vegetation removal is proposed in and around stands of this size, riparian vegetation will be cleared by hand if possible, leaving as much as possible of the root wad and base of plants intact. Following completion of construction, poles and branches will be replanted on stream banks.

6. There will not be any incidental take of Least Bell's vireo proposed under the Program.

Specific actions to avoid, minimize or mitigate adverse effects to the California condor

1. During the project assessment, SBRCD/NRCS will assess if potential California condor nests are present in the project area.

2. If nests are present or a California condor is detected or believed to be present during project assessment surveys, SBRCD/NRCS will follow the agreed-upon protection measures (approved by FWS and DFG) and postpone construction until after August 1 to avoid the nesting season.

3. If it is not possible to schedule removal of vegetation or construction near potential nesting sites as outlined in the measures above, pre-construction surveys for California condors and other nesting birds in and adjacent to the project area will be conducted by a qualified individual knowledgeable in California condor identification and biology. Two pre-construction surveys for nesting California condors will be conducted prior to vegetation removal. The second survey will be conducted no more than seven days prior to the initiation of project activities. If a California condor is detected during these surveys, SBRCD/NRCS will notify the FWS and DFG and no work will occur without approval.

4. There will not be any incidental take of California condor proposed under the Program.

Specific actions to avoid, minimize or mitigate adverse effects to the American peregrine falcon

1. During the project assessment, SBRCD/NRCS will assess whether American peregrine falcon nests are present in the project area.

2. If nests are present or an American peregrine falcon is detected or believed to be present during project assessment surveys, SBRCD/NRCS will follow the agreed-upon protection measures approved by DFG, and postpone construction until after August 1 to avoid the nesting season.

3. There will not be any incidental take of American peregrine falcon proposed under the Program.

Specific actions to avoid, minimize or mitigate adverse effects to the Bank swallow

1. During the project assessment, SBRCD/NRCS will assess if Bank swallow nests are present in the project area. Survey protocols specified by FWS and available at <http://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/LBVireo.2001.protocol.pdf> will be followed.

2. If nests are present or a Bank swallow is detected or believed to be present during the project assessment, SBRCD/NRCS will postpone construction until after September 15 to avoid the nesting season. A buffer zone of at least 0.25 miles will be provided from nests or individuals.

3. If it is not possible to schedule removal of vegetation or construction at potential nesting sites as outlined in the measure above, pre-construction surveys for Bank swallows and other nesting birds in and adjacent to the project area will be conducted by a qualified individual (approved by FWS and DFG) knowledgeable in Bank swallow identification and biology. Two pre-construction surveys for nesting Bank swallows will be conducted prior to vegetation removal. The second survey will be conducted no more than seven days prior to the initiation of project-related activities. If a Bank swallow is detected during these surveys, SBRCD/NRCS will notify the FWS and DFG and no work will occur without approval.

4. If at any time an active Bank swallow nest is found within a 10-mile radius of the project area, the project will be halted and the FWS and DFG will determine if additional protection measures are required. If SBRCD/NRCS learns of such an occurrence, it will notify FWS and DFG. If FWS or DFG learn of such an occurrence, they will notify SBRCD/NRCS.

5. Special care will be given to stands of riparian habitat of a size greater than 0.5 acres. If vegetation removal is proposed in and around stands of this size, riparian vegetation will be cleared by hand if possible, leaving as much as possible of the root wad and base of plants intact. Following completion of construction, poles and branches will be replanted on stream banks.

6. There will not be any incidental take of Bank swallows proposed under the Program.

Specific actions to avoid, minimize or mitigate adverse effects to the San Joaquin kit fox

All grasslands, oak savanna, fallow agricultural fields, and orchards in the Program area will be considered potential San Joaquin kit fox habitat.

1. During the project assessment, SBRCD/NRCS will assess if San Joaquin kit fox habitat is present in the project area. Survey protocols specified by FWS and listed at http://www.fws.gov/sacramento/es/documents/kitfox_no_protocol.pdf will be followed.

2. If habitat is present or a San Joaquin kit fox is detected or believed to be present during the project assessment, a qualified individual (approved by FWS and DFG) will conduct a survey to determine if the site has active San Joaquin kit fox dens. If dens are present, a qualified individual will conduct a pre-construction survey for dens greater than 4 inches in diameter, scat, tracks, or any other sign to indicate presence of the species.
3. If San Joaquin kit fox active dens are found within the proposed work area, SBRCD/NRCS will follow the agreed-upon protection measures approved by FWS and DFG prior to and during project construction and by avoiding construction during the breeding season
4. During project implementation, no fencing will be installed that would limit movement of San Joaquin kit fox.
5. The FWS *Standardized Recommendations for the Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* will be implemented for any project within potential habitat for San Joaquin kit fox.

Specific actions to avoid, minimize or mitigate adverse effects to the Blunt-nosed leopard lizard

1. During the project assessment, SBRCD/NRCS will assess whether Blunt-nosed leopard lizard habitat is present in the project area. Survey protocols specified by DFG, and available at: <http://www.dfg.ca.gov/wildlife/species/docs/BNLLrevisedprotocol.pdf> will be followed.
2. If habitat is present or a Blunt-nosed leopard lizard is detected or believed to be present during project assessment surveys, SBRCD/NRCS will follow the agreed-upon protection measures (approved by FWS and DFG).
3. There will not be any incidental take of Blunt-nosed leopard lizard proposed under the Program.

Specific actions to avoid, minimize or mitigate adverse effects to the CNPS 1B Rare Plant Species

SBRCD/NRCS will utilize the California Natural Diversity Database (CNDDDB) to identify documented instances of California Native Plant Society 1B classified plants in the project area (Table 7). In addition, SBRCD/NRCS will survey for and determine the habitat types present in the project area. If a particular habitat that is known to support a special status plant species, or a rare biotic community, occurs within the project area, SBRCD/NRCS will undertake a properly timed floristic survey to determine species and community presence. Project activities will avoid impacts to rare biotic communities, and to any individual CNPS classified 1B/1A plants that are found, if possible. A buffer zone of 20 feet shall be provided around the plants to avoid impacts whenever possible. Removal of invasive, non-native plants by hand (i.e. using hand tools, hand pulling, etc.) within this buffer may occur and is recommended to protect special status plants. If CNPS-classified plant species cannot be avoided and the buffer maintained, SBRCD/NRCS will follow the agreed-upon protection measures provided by DFG.

Specific actions to avoid or minimize adverse effects to State Species of Special Concern, including the Western pond turtle, Southwestern pond turtle, Coast Range newt, Western spadefoot toad, Foothill yellow-legged frog, Black Legless Lizard, Coast horned lizard, San Joaquin whipsnake, Two-striped garter snake, Cooper's Hawk, Tricolored Blackbird, Osprey, Northern harrier, Sharp-shinned hawk, Golden eagle, Prairie falcon, Long-eared owl, Townsend's western big-eared bat, Hoary bat, Pallid bat, Western mastiff bat, and American badger

1. During the project assessment, SBRCD/NRCS will determine if appropriate habitat is present in the project area.
2. If potential habitat is present, or the species is detected or believed to be present, SBRCD/NRCS will assume presence, notify DFG, and follow the protection measures provided by DFG. No work will occur or continue to occur without the protection measures or DFG approval.

Specific actions to avoid, minimize or mitigate adverse effects to the White-tailed kite

1. During the project assessment, SBRCD/NRCS will assess whether White-tailed kite nests are present in the project area.
2. If nests are present or a White-tailed kite is detected or believed to be present during project assessment surveys, SBRCD/NRCS will follow the agreed-upon protection measures approved by DFG, and postpone construction until after August 1 to avoid the nesting season.
3. There will not be any incidental take of White-tailed kite proposed under the Program.

Specific actions to avoid, minimize or mitigate adverse effects to the Burrowing owl

1. During the project assessment, SBRCD/NRCS will assess whether Burrowing owl habitat is present in the project area (dry open rolling hills, grasslands, deserts and open bare ground with gullies and arroyos). Survey protocol specified by DFG and available at: <http://www.dfg.ca.gov/wildlife/species/docs/boconsortium.pdf> will be followed.
2. If nesting habitat is present or a Burrowing owl is detected or believed to be present during the project assessment, a qualified individual (approved by DFG) will walk the project area and look for burrows characteristic of the owl (6 inches or greater in size) and indicators of the owl (excrement (white splash) or feathers adjacent to burrow).
3. If burrowing owls or burrows with the indicators described above are seen in the project area, SBRCD/NRCS will follow the agreed-upon measures approved by DFG.

Specific actions to avoid, minimize or mitigate adverse effects to the San Francisco dusky-footed woodrat and the Monterey dusky-footed woodrat

1. During the project assessment, SBRCD/NRCS will assess whether woodrat nests are present in the project area.
2. If potential nests are present in the project area, project activities will attempt to avoid disturbing nests or opening up that area to light that might result in increased susceptibility to predators.
3. If nests cannot be avoided, SBRCD/NRCS will contact DFG to develop appropriate site-specific protection measures.

D. Monitoring and Reporting Plan

1. Maintenance and Monitoring of Conservation Practices

All projects constructed under the Program are closely monitored during construction to ensure compliance with the project's design, environmental protection measures, and additional conditions. Effective functioning of the best-built conservation practice, however, is only as good as the maintenance the system receives. Maintenance of practices is the responsibility of the cooperator, but SBRCD/NRCS will perform status reviews annually for all funded projects under the Program. The purpose of the status reviews is to determine if the conservation practices are functioning as planned.

Under the Program, SBRCD/NRCS will monitor on-site compliance with the environmental protection and mitigation measures and agency-required conditions until installation of the practices is completed. The frequency of on site monitoring by SBRCD/NRCS during construction will be determined by the complexity of the project and the sensitive resources present. Depending on the project type, there may be critical points in the construction activities where SBRCD/NRCS staff will need to be on site to monitor implementation (for example, to ensure appropriate depths for trenching or compaction). In addition, in complying with the FWS and NMFS biological opinions, the DFG streambed alteration agreement and other relevant permits and authorizations, SBRCD/NRCS will determine whether or not qualified individuals are needed for monitoring at each work site, as well as the expertise needed by those individuals.

Following the initial installation of a project, SBRCD/NRCS will continue monitoring at least annually until the project is functioning as planned, meeting design standards and serving its intended purpose. Status reviews include an examination of the practices' current condition, a comparison of as-built against the original plan (including all plantings and other vegetative success), and recommendations for resolving any problems encountered during implementation of the practices.

2. Monitoring, Notification and Reporting

SBRCD/NRCS will provide electronic pre-construction notification for each project to regulatory agencies with jurisdiction over project activities (hard-copy notification will be provided for agencies with such requirements). Notification will include the following

information: project location; the Tier the project falls under and why; project description and purpose/need (including environmental benefits expected); environmental setting (surrounding habitat, adjacent land uses); approved practices to be installed; project dimensions (length, width, volume of soil disturbance); and summary of any survey results.

Tier I projects may begin 10 working days after electronic notifications have been emailed, unless other timelines are required or specified by agencies. Additional time for project review is provided for Tier II, III and IV projects.

SBRC/D/NRCS will report the status of all projects to permitting agencies in the form of an annual post-construction report. The annual report will be due by January 31 of each year during the term of the Program. The report will include the following information: project name or sponsoring organization; descriptions of each project purpose and area affected; improvements to water quality and/or biological resources; photo-documentation comparison of pre-construction and post-construction condition; monitor's observations and adjustments made to existing practices as result of monitoring; reseeding and revegetation efforts; and other pertinent information. The report will also include a review of the status of all previous habitat restorations that are being maintained.

After five years of implementation of the Program, SBRC/D/NRCS shall compile a comprehensive assessment of the Program and all projects constructed to that point. The assessment will summarize the types of projects and conservation practices installed, and discuss the Program's successes and challenges, including the regulatory process. The compiled data will be utilized to provide the agencies with a general overview of the Program's effectiveness, as well as any opportunities for its improvement, at the halfway point of its 10-year term.

3. Compliance and Non-compliance

Prior to implementation of the conservation practices, SBRC/D/NRCS shall notify the cooperator of the project's environmental protection and mitigation measures and all permit conditions through the signed cooperator agreement. If the work carried out is not consistent with NRCS' design standards and specifications, including the environmental protection and mitigation measures and permit conditions, SBRC/D/NRCS shall notify the cooperator and work directly with him or her to resolve the problem. SBRC/D/NRCS has found this approach to be successful in almost all cases. In the unlikely event that a cooperator still fails to conform, SBRC/D/NRCS shall notify the cooperator that his or her activities are inconsistent with the Program or the cost-share contract and that the cooperator's actions are no longer covered by the Program's permits and agreements.

IV. POTENTIAL ENVIRONMENTAL IMPACTS OF THE PROGRAM

A. Water Quality Benefits and Impacts

Restoration projects implemented under the proposed Program are expected to reduce the amount of sediment and pollutants entering the Pajaro River waterways of San Benito and southern Santa Clara Counties. The 15 conservation practices are planned for installation on farms, ranches, and rural residential properties to prevent erosion and the release of sediment; in riparian areas and on stream banks to reduce bank erosion, head cutting, scour and sedimentation, and to remove non-native, invasive vegetation; and in erosion gullies to reduce head cutting and down cutting, and to stabilize the channel.

Implementation of the proposed conservation practices may result in minor, short-term adverse impacts to water quality at and immediately downstream of the work sites. Minor increases in sedimentation and turbidity levels in streams affected by project grading, construction or revegetation activities may occur.

These temporary or secondary adverse or potentially adverse effects will be avoided or minimized by the Program's environmental protection and mitigation measures. The SBRCDD has attempted to design a Program, including the 15 proposed conservation practices, that addresses all potential effects that have been identified, and ensures compliance with the mandates and guidance of all regulatory agencies. The SBRCDD/NRCS believe that the Program's minor adverse effects will be more than offset by the long-term beneficial effects associated with water quality improvements from the reduction of sediment entering stream habitats in the Program area, the removal of non-native, invasive vegetation, and an increase in diverse, native streamside habitat.

The Program's conservation practices are designed to protect water quality by detaining agricultural soil and associated agrochemicals on the farm, and to improve native riparian habitat. Since water quality testing and sediment monitoring are costly and beyond the scope of the Program, soil retention and loss are used as a proxy for water quality benefits and impacts from implementation of the conservation practices. Other measures of success specified in the Reporting and Monitoring sections of this document include the extent of non-native vegetation removed and native vegetation planted.

B. Impacts to Biological Resources

Projects constructed under the proposed Program are expected to result in long-term and cumulatively beneficial effects to the natural communities, ecosystems and plant and animal species occurring in and around agricultural and rural residential properties in San Benito and southern Santa Clara Counties.

As with the implementation of most conservation work, the potential exists for minor, temporary adverse effects associated with construction activities undertaken during Program

implementation. The SBRCD/NRCS believe that adverse impacts during and shortly following project construction will be limited to minor fine sedimentation from stormwater runoff at project sites during the first year after construction; the potential for very limited capture and relocation of SCCC steelhead, California tiger salamander and/or California red-legged frog at work sites, and other nominal effects. In addition, secondary impacts from some of the proposed conservation practices that may occur include: planted species could have a detrimental effect on biological resources if monocultures are established or non-native species are used; and, certain types of fencing could inhibit wildlife movement and reduce wildlife foraging opportunities.

SBRCD/NRCS have cooperated closely with FWS, NMFS, DFG, CCRWQCB and San Benito and Santa Clara Counties to develop an extensive set of environmental protection and mitigation measures specifically aimed at avoiding, minimizing and mitigating these potential effects to protected species and sensitive habitats in the Program area. If needed, the protection measures will be further refined with the help of regulatory agency staff as the Program moves through the regulatory approval process.

It is the intent of the SBRCD/NRCS to ensure that with careful implementation of all protection measures detailed in this document, the potential adverse effects from the Program will be minimal, and will be greatly outweighed by the Program's benefits to water quality and riparian and other habitats. No significant harmful impacts to biological resources are planned or expected from this Program.

Implementation of the 15 proposed conservation practices is expected to lead to water quality improvements from the reduction of sediment and excess nutrients entering aquatic systems, and to habitat improvements from restoration activities such as removal of non-native, invasive species and planting of native vegetation. The proposed Program would result in the repair and maintenance of aquatic habitat, riparian vegetation, and upland habitat. Practices that involve stabilization of stream banks, planting of new riparian vegetation, control of erosion on private lands, and other environmentally beneficial work will improve the quantity and quality of freshwater input to creeks, streams and ponds. Improved riparian habitat providing shade, cover and higher water quality for salmonids could improve spawning and rearing conditions for steelhead found in the streams of the Pajaro River watershed, as well as for the California red-legged frog, California tiger salamander and other species. Other water quality benefits such as cooler water temperatures from improved riparian shading, higher dissolved oxygen levels, and reduced nutrient delivery to streams from retention and filtration of agricultural runoff can be expected, although they cannot be quantified due to a lack of monitoring data and the effects of multiple factors on complex stream parameters

C. Impacts to Agriculture and Agricultural Land Use

The purpose of the Program is to reduce erosion and soil loss and improve existing agricultural productivity and operations throughout the Pajaro River watershed. The Program will not result in any substantial alteration in the Program area's present or planned agricultural or grazing land-uses, or a reduction in acreage devoted to agriculture or grazing. Only beneficial impacts to agriculture and the agricultural economy are expected. No significant adverse impacts are expected.

D. Impacts to Public Services

This Program will not result in new development, housing, structures or activities that would require an increase in public services such as fire or police protection or infrastructure needs such as water supply or sewer hookups. No significant impact to public services is expected.

E. Impacts to Population, Housing and Urban Growth

This Program will not result in increased population or housing demand, nor will it create the demand for substantial amounts of fuel or energy. It will not induce urban growth or set a precedent for changes in land use. It is compatible and consistent with existing local and state land use and zoning ordinances. No significant impact to population, housing and urban growth is expected.

F. Impacts to Traffic

Traffic Conditions

Although there will be some use of public roads to reach the work sites, the Program will be predominantly implemented on private lands and is not expected to materially affect traffic conditions. Due to the small number and size of the projects that are expected to be constructed during the Program's 10-year duration, and their dispersal throughout a large Program area, no significant impact to traffic circulation on public roadways in the area is expected.

As noted on page 11, up to an estimated 75 projects may be constructed during the Program's 10-year implementation period. The State Department of Transportation (Caltrans) has established the following criteria to determine if a formal Traffic Impact Study is warranted for potential impacts from the proposed Program:

1. The Program will generate over 100 peak hour trips assigned to a State highway facility.
2. The Program will generate between 50 to 100 peak hour trips assigned to a State highway facility, and the affected highway facilities are experiencing noticeable delay; approaching unstable traffic flow (level of service (LOS) "C" or "D" conditions).
3. The Program will generate between 1 and 49 peak hour trips assigned to State highway facility, and the affected highway facilities are experiencing significant delay; unstable or forced traffic flow (LOS "E" or "F" conditions).

State highway facilities 25, 101, 129, 146, 152 and 156 are within the Program area. The scope of the small restoration and habitat enhancement projects that are expected to be constructed under the Program is such that criteria 1 and 2 will not be met for any of these roadways, as very few if any peak hour trips on State highway facilities will be generated during project construction. However, even a small number of peak hour trips by vehicles associated with project activities will meet the threshold of 1-49 peak hour trips defined under criteria 3.

Transportation Concept Reports issued by Caltrans for the State highway facilities noted above indicate that LOS “E” or “F” conditions during peak traffic flow currently occur on:

- Highway 25 north of Hollister in San Benito and southern Santa Clara Counties
- Highway 101 through San Benito County

On the following State highways, LOS data are out of date or not available:

- Highway 129 – no LOS data available
- Highway 152 – no LOS data available
- Highway 156 – no LOS data available
- Highway 146 – no LOS data available (however, traffic volumes are very low)

Pre-project planning for any projects that may affect State highway facilities where LOS “E” or “F” conditions occur at the time of construction will require either a Traffic Impact Study that complies with Caltrans regulations, or consultation between the RCD/NRCS and Caltrans.⁴

State Highway Encroachment

Sites identified for potential work within the State’s right-of-way, adjacent to any of the State highways listed above, will either be excluded from the Program, or an application for an encroachment permit from the State will be submitted to the Department of Transportation and the permit obtained before work begins.

Transportation Permits

Under the California Vehicle Code (Division 5, section 35780), project work that involves movement of oversized or excessive load vehicles on State highways requires a transportation permit issued by Caltrans. Project planning during Program implementation will include a requirement that any oversized or excessive load vehicles providing service to the construction site on State highways must have a current Caltrans transportation permit. Information about oversized or excessive load vehicle transportation permits can be obtained on the Caltrans website at: <http://www.dot.ca.gov/hq/traffops/permits>.

Discharges Entering a State Right-of-Way

Discharges at a project construction site potentially affecting a State highway facility must comply with the National Pollution Discharge Elimination System (NPDES) permit issued to Caltrans by the State Water Resource Control Board for construction or permanent runoff. Under the Program, any discharge at a project site expected to enter the State’s highway right-of-way will comply with Caltrans’ NPDES permit (available at www.waterboards.ca.gov/water_issues/programs/stormwater/docs/caltrans/caltranspmt.pdf) and Caltrans’ Statewide Stormwater Management Plan (available at: www.dot.ca.gov/hq/env/stormwater/pdf/swmp_may2003final.pdf).

G. Impacts from Geological Hazards and Site Alterations

⁴ See Guide for the Preparation of Traffic Impact Studies, State of California, Department of Transportation. December 2002, page 5 discussion. Available at: <http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf>

This program will not result in any structures or construction that is likely to create a seismic or landslide hazard. Although some of the conservation practices may be installed on overly steepened streambanks and hillside slopes, their purpose is to stabilize these slopes to prevent erosion and reduce the risk of soil loss, a beneficial impact. The SBRCD/NRCS standard, whenever feasible, is a maximum slope of 2:1, reducing the likelihood of landslide or geological failure. Projects are unlikely to result in an increased seismic or landslide hazard, and no significant impact to geological hazards is expected.

H. Impacts from Hazardous Substances

Environmental protection and mitigation measures have been developed and incorporated into the Program to avoid and minimize the potential for pollution (oil leaks or fuel spills) from heavy equipment that might be used during construction. The risk of toxic material spills cannot be eliminated, but with implementation of the environmental protection and mitigation measures, adverse effects from hazardous substance spills and leaks are expected to be negligible. Similarly, environmental protection and mitigation measures governing the use of herbicides have been designed to reduce the risk of unintended aquatic and aerial contamination from herbicidal chemicals. The use of these potential pollutants is not expected to result in significant input of hazardous substances to the environment.

I. Impacts to Air Quality and Ambient Sound Levels

The Program will have negligible, short-term impacts on air quality and ambient sound levels only in the vicinity of the individual project sites. Based on the small number and size of the projects, and their distribution throughout a large watershed during a 10-year implementation period, the total direct and non-direct project air and noise emissions from project construction are not expected to exceed the *de minimis* threshold levels of federal, state and county statutes, regulations and ordinances.

No significant impact to air quality or ambient sound levels is expected.

J. Impacts to Aesthetics and Sky Darkness

Scenic and other aesthetic resources, including dark night skies critical to astronomical observations at the University of California's Mt. Hamilton telescope facility in southern Santa Clara County, are not expected to be affected by the Program's small projects and standard daytime work schedules.

No significant impact to aesthetics and sky darkness is expected.

K. Impacts to Mineral Resources

No significant impact to mineral resources is expected.

L. Cumulative Impacts

Section 15355 of CEQA defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” For the purposes of the Program, cumulative effects are those impacts of future state and private actions, not involving a federal action, that are reasonably certain to occur in the project area. Future federal actions will be subject to the consultation requirements established in section 7 of the ESA and, therefore, are not considered cumulative to the Program (FWS 1998).

During the Program’s proposed 10-year duration, it is anticipated that population increases and development will affect land use and natural resources in San Benito and southern Santa Clara Counties. Population and infrastructure growth, as well as relatively high real estate values, in the Program area may increase the pressures of recent decades that have led to conversion of agricultural lands to residential, commercial and industrial uses. Development and growth may be constrained, however, by policies encouraging the concentration of new construction within urban service areas in order to maintain rural and agricultural land uses within the region. Further, the high productivity of agricultural lands in the fertile and temperate valleys of the Program area provides a basis for agricultural operations to remain a strong part of the local economy and culture.

Global climate change can be considered an additional cumulative effect for the Program. Human activity has been increasing the concentration of greenhouse gases, mostly carbon dioxide from the combustion of coal, oil and gas, in the atmosphere. Pre-industrial levels of CO₂ were about 280 parts per million by volume (ppmv), while current levels are about 370 ppmv. This CO₂ concentration has not been exceeded in the last 420,000 years. By the end of the 21st century, CO₂ concentrations may rise to between 490 and 1260 ppmv. As a result of the increased CO₂ levels, global surface temperatures have increased about 0.6°C since the late-19th century, and about 0.4°C in the past 25 years. The warming has been greatest over North America and Eurasia, between 40 and 70 degrees N latitude. El Niño Southern Oscillation events, characterized by unusually warm sea surface temperatures in the Equatorial Pacific Ocean and unusually severe storms in the southwestern U.S., are not caused by global warming, but may become more frequent and persistent due to increased greenhouse gas concentrations (NOAA 2006). The small restoration and erosion control projects proposed under the Program will not require a great number of vehicle trips, intensive heavy equipment usage, or other greenhouse gas-causing activities. Hand labor will be used extensively during construction at many of the project sites, and none of the projects are expected to generate a significant amount of truck traffic, diesel equipment emissions, chemical vapors or other harmful climate impacts.

Climate models for the 21st century indicate that in California, warmer temperatures due to global climate change may result in reduced snowpack storage, increased winter flood peaks, and reduced spring runoff (Scripps Institute of Oceanography 2006). These changes could have unknown but potentially significant effects, such as increased erosion and bed scour in stream channels from severe storm events, in the Program area. In light of this possibility, implementation of the Program offers additional and valuable benefits to native riparian habitat through biotechnical bank stabilization, removal of non-native invasive vegetation, and restoration of a diverse native plant community vital to stable stream channels. Such restoration work can contribute to the health and recovery of depressed salmonid populations, as well. The overall effects of the proposed Program, in the form of improved water quality, reduced sediment

delivery to streams and estuaries, and habitat restoration and enhancement, are expected to be beneficial in terms of greenhouse gasses and global climate change.

Implementation of projects under the Program is not anticipated to have a significant cumulative effect on any long-term economic, demographic or cultural trends. The cumulative effects of the proposed Program, in the form of improved water quality, reduced sedimentation, and habitat enhancement, are expected to be beneficial to the biological resources, threatened and endangered species, and agricultural productivity in the Program area. Other qualities in the Program area, including geologic hazards, traffic, population, housing and urban growth, public services and hazardous substances, are not expected to be materially affected by the Program. Therefore, any future state or private actions that are reasonably certain to occur in the vicinity of the Program, when considered with the effects of this Program on the resources listed above, are not expected to have significant cumulative effects.

No significant adverse cumulative impacts are expected.

M. Mandatory Findings of Significance

1. Does the Program 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 wildlife community, reduce the number or restrict the range of an endangered, rare or threatened plant or wildlife, or eliminate important examples of the major periods of California history or prehistory?

Due to the Program's environmental protection and mitigation measures, impacts will be avoided or mitigated to a less than significant level.

2. Does the Program 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)?

No significant impact is expected.

3. Does the Program have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?

No significant impact is expected.

V. PARTY RESPONSIBLE FOR PREPARATION OF THE INITIAL STUDY

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APPENDICES

Appendix A: NRCS Standards and Specifications for the Proposed Conservation Practices

Appendix B: NRCS Planning Documents

Appendix C: Draft List of Plant Species for Revegetation

Appendix D: NMFS Culvert Criteria for Fish Passage

Appendix E: Guidelines for Salmonid Passage at Stream Crossings

Appendix F: Juvenile Fish Screening Criteria for Pump Intakes

Appendix G: A Primer on Stream and River Protection for the Regulator and Program Manager