

Table 1. Number of practices implemented for the 5-year program. Note: Multiple practices were often implemented at a project site to achieve environmental benefit.

	Practice	# of sites practice implemented
1	Access Road Improvement (560)	14
2	Critical Area Planting (342)	16
3	Diversion (362)	0
4	Filter Strip (393)	0
5	Fish Stream Improvement (395)	6
6	Grade Stabilization Structure (410)	1
7	Grassed Waterway (412)	3
8	Obstruction Removal	3
9	Pipeline (516)	0
10	Restoration and management of Declining Habitats (643)	12
11	Sediment Basins (350) [with or without water control (638)]	4
12	Streambank Protection (580)	5
13	Stream Channel Stabilization (584)	0
14	Structure for Water Control (587)	9
15	Underground Outlet (620)	0

Access Roads Improvements (in combination with Structure for Water Control) were installed in partnership with rural road associations with the assistance of funding provided under the RCD's Rural Roads Program. The projects resulted in more than 1000 T/A/Yr of sediment from impacting water quality, predominantly in the San Lorenzo River watershed (Table 2). An additional 6800 T/A/Yr of sediment was saved from loss by erosion through the implementation of sediment basins, grassed waterways, and streambank protection practices on agricultural land in the Pajaro Valley Watershed.

Almost 20 miles of salmonid habitat was improved throughout Santa Cruz County utilizing the Fish Stream Improvement and obstruction removal practices.

More than 75 acres of habitat was restored with the Restoration and Management of Declining Habitats and Critical Area Planting practices, with 28 acres of habitat restored along the lower reaches of Soquel Creek, which provides habitat for the Steelhead, Coho, tidewater goby, and foothill yellow legged frog. Approximately 40 acres were restored along the lower reach of Watsonville Slough just upstream of the confluence with the Pajaro River, which provides habitat for a multitude of aquatic and avian species.

Table 2. Proposed Conservation Practices for Program

CONSERVATION PRACTICE (FOTG PRACTICE CODE)	PROPOSED IMPACT TIER	PURPOSE AND COMMON USES *This is a <u>brief</u> summary of practice use to clarify tier process.
Access Road Improvement (560)	I or III	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. Road projects for which grading exceeds 100cyd in upland habitat would fit in tier I; projects with T&E species, or their habitat would fit in tier III.
Planting (342, 612, 422, 391)	I, II or III	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. Projects for which grading exceeds 100cyd in upland habitat would fit in tier I; planting projects within a riparian corridor would fit in tier II; projects with T&E species, or near or in their habitat would fit in tier III.
Fish Passage Improvement (396)	II or III	The practice is used to improve or enhance aquatic habitat for fish in degraded streams, channels, and ditches by providing shade, controlling sediment, and restoring pool and riffle stream characteristics and may also be used for removal or modification of fish barriers such as flashboard dams fords, culverts or logjams. Projects within a riparian corridor would fit into tier II; projects with T&E species, or their habitat would fit into tier III.
Grade Stabilization Structure (410) (In non-fish bearing streams, primarily for gully repair)	I or III	Installation of a structure built into a gully to control the grade and prevent head cutting in natural or artificial channels. This practice refers to rock, timber, or vegetative structures, such as a brush mattress, placed to slow water velocities above and below the structure, resulting in reduced erosion. Projects for which grading exceeds 100cyd in upland habitat would fit in tier I; projects with T&E species, or their habitat would fit in tier III.
Grassed Waterway (412)	I or III	Establishment of a natural or constructed channel that is shaped or graded to required dimensions and expected velocities, and establishment of suitable vegetation for the stable conveyance of runoff. Projects for which grading exceeds 100cyd in upland habitat would fit in tier I; projects with T&E species, or their habitat would fit in tier III.
Obstruction Removal (500)	II or III	Removal and disposal of unwanted structures from waterways including cars, large appliances, and garbage (items that are anthropogenic and not natural to the system). Large objects such as cars and appliances would be removed unless their removal would result in a (net) detrimental effect. Structures would be removed when the stream channel is dry or during the lowest flows to minimize impacts. Projects within a riparian corridor would fit into tier II; projects with T&E species, or their habitat would fit into tier III.
Restoration and Management of Declining Habitats (643)	I, II or III	This practice is used to remove invasive plant species in sensitive resource areas in order to improve the quality of the adjacent aquatic habitat; provide habitat for rare and declining wildlife species by restoring and conserving native plant communities; increase native plant community diversity; and management of unique or declining native habitats. This practice may also be used to manage fuel loads in sensitive habitats and allows treatment and maintenance of invasive species and noxious weeds, as well as revegetation of a treated area. Projects for which grading exceeds 100cyd in upland habitat would fit in tier I; projects within a riparian corridor would fit in tier II; projects with T&E species, or their habitat would fit in tier III.
Sediment Basins (350) and Water and Sediment Control Basin (638)	I or III	Construction of basin(s) to collect and store debris or sediment. Sediment basins will trap sediment, sediment associated materials, and other debris and prevent undesirable deposition on bottomlands and in waterways and streams. Basins are generally located at the base of agricultural lands adjacent to natural drainage or riparian areas. Sediment basins shall not be constructed in a stream channel or other permanent water bodies. This practice may also involve designing the sediment basin to control water volumes leaving a site and releasing the water at a natural flow rate. If water control were recommended by the NRCS, an earth embankment or a combination ridge and channel design constructed across the slope and minor watercourses would be implemented to form a sediment trap and water detention basin. The design of spillways and outlet will include water control structures to prevent scouring at discharge points. Projects for which grading exceeds 100cyd in upland habitat would fit in tier I; projects with T&E species, or their habitat would fit in tier III.

CONSERVATION PRACTICE (FOTG PRACTICE CODE)	PROPOSED IMPACT TIER	PURPOSE AND COMMON USES *This is a <u>brief</u> summary of practice use to clarify tier process.
Streambank Protection (580)	II or III	Use of vegetation or structures to stabilize and protect banks of streams, lakes, or estuaries against scour and erosion. "Bioengineered" solutions using vegetation and soft materials are the preferred options where conditions are favorable for their use. Examples of this practice may include willow sprigging, brush matting, and live vegetative crib walls. The streambed grade must be controlled before most permanent types of bank protection can be considered feasible. Streambank restoration activities, without listed species, would fit into tier II; projects with T&E species, or their habitat would fit into tier III.
Stream Channel Stabilization (584) (In non-fish bearing streams only)	II or III	Stabilization of the channel of a stream with suitable structures. "Bioengineered" solutions using vegetation and soft materials (as opposed to concrete and rip rap, for example) are the preferred options where conditions are favorable for their use. This practice applies to stream channels undergoing damaging aggradation or degradation that cannot be reasonably controlled with upstream practices (establishment of vegetative protection, installation of bank protection, or by the installation of upstream water control measures). This practice may be utilized to remove accumulated sand or sediment that have caused the channel to become plugged due to a large storm event or bank failure. This practice may not be used in fish-bearing streams or for routine maintenance involving dredging of a waterway, but may be used to remove sediment that has accumulated, primarily as a result of a catastrophic event such as a flood, and would only be used once at a given location under this program. Stream channel activities, without listed species, would fit into tier II; projects with T&E species, or their habitat would fit into tier III.
Stream Crossing (578)	II or III	To provide access on a site where a in-stream barrier has been removed. If a culvert or ford has been removed, a bridge or other suitable crossing may be installed. Activities without listed species would fit into tier II; projects with T&E species, or their habitat would fit into tier III.
Structure for Water Control (587)	I, II or III	Installation of a structure in an irrigation, drainage, or other water management system, including streams and gullies, that conveys water, controls the direction or rate of flow, or maintains a desired water surface elevation, such as culverts, pipe drops or chutes within gullies, debris screens, etc. Structure for water control is used to replace or retrofit existing culverts that are either not functioning properly or are a barrier to fish passage. The placement of new culverts is also covered. Projects for which grading exceeds 100cyd in upland habitat would fit in tier I; projects within a riparian corridor would fit in tier II; projects with T&E species, or their habitat would fit in tier III.
Underground Outlets (620)	I, II or III	Installation of a conduit beneath the surface of the ground to collect surface water and convey it to a suitable outlet. Excess surface water generated by farmland on steep terrain can be collected and conveyed to a sediment basin by installing pipe safely buried underground. Location, size, and number of inlets are determined to collect excess runoff and prevent erosive surface flow. This runoff is then discharged at sediment basin where high velocity runoff is calmed and suspended sediment is trapped prior to releasing water into natural drainage channel. Projects for which grading exceeds 100cyd in upland habitat would fit in tier I; projects within a riparian corridor would fit in tier II; projects with T&E species, or their habitat would fit in tier III.
Upland Wildlife Habitat Management (645, 382, 614, 516)	I or III	This practice will be utilized to create, restore, and/or enhance upland habitat for wildlife species. This practice may be used to install shelter, cover, and food, establish vegetation for shelter, food, and enable movement, and for manipulating vegetation to sustain optimal habitat conditions. This practice may include the creation of infrastructure to accomplish the intended purpose of the practice, including a livestock pipeline, fence, and watering facility. Projects for which grading exceeds 100cyd in upland habitat would fit in tier I; projects with T&E species, or their habitat would fit in tier III.
Wetland Management (657, 659, 356, 644)	II or III	To restore and enhance wetlands conditions similar to those that existed prior to modification for farming, grazing, or other land use. This practice includes minor reshaping to restore topographic relief of the site, hydrological enhancement (increasing season of inundation or saturation), and vegetative enhancement to remove any undesired species that did not originally exist on the site or to plant native species. To actively manage the water regime to improve habitat for desired species or to be able to manage for pest control (i.e. mosquitoes), Dike and Structure for Water Control may be used. Once constructed, the maintenance of the practice(s) is allowable, including management of water levels and a wide range of vegetation management activities to maintain or improve the vegetative composition on a site. Projects within a wetland, without T&E species or their habitat would fit in tier II; projects with T&E species, or habitat would fit in tier III.

	TIER I	TIER II	TIER III
	<p>until November 30.</p> <p>Additional tier one projects such as invasive species removal in uplands may be authorized to proceed through the rainy season, depending on the particular species and removal/control technique</p>	<p>Work will be timed to avoid disturbing breeding birds in native habitat. Projects that could affect breeding birds will not begin until August 1 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>	<p>project area, construction activities shall begin after July 1.</p> <p>If potential habitat for the marbled murrelet occurs in the project area, work shall either begin after September 15.</p> <p>If potential habitat for the Mount Hermon June beetle is present in the project area, construction activities shall begin after August 15.</p> <p>If least Bell's vireos are discovered in Santa Cruz County during the life of the Program and are potentially present in the project area, construction activities shall begin after August 31.</p>
Notification	<p>RCD will provide electronic Pre-Construction Notifications (PCN) for each project to regulatory agencies with jurisdiction over project activities . 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 the RCD is contacted by the agencies.</p>	<p>All requirements for TIER I apply, AND:</p> <p>RCD/NRCS will provide an electronic DRAFT Pre-Construction Notification (PCN) to regulatory agencies with jurisdiction over project activities . These agencies will provide comments or recommended revisions within 21 working days of receipt of a PCN. RCD/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, RCD/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>All requirements for TIER II apply, 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>

Appendix B

Environmental Protection and Mitigation Measures and Conditions for All Projects

The following general measures have been developed to reduce or avoid the potential adverse effects associated with actions to be covered by the permit coordination program. These measures, as appropriate for a specific action, would be included as special conditions on any practice installed under the Program within the potential habitat of threatened and endangered species:

General Conditions for all Projects

<p>Temporal Limitations on Construction</p>	<p>The general construction season will be from April 15 to October 31, however modifications to that time frame may be made on a site-specific basis. Restoration activities may be approved until December 31 and revegetation may extend beyond October 31 to November 30. All earthmoving activities would be complete by October 31. Additional erosion control measures, as described below under Conditions for Erosion Control, will be implemented for work conducted during the winter period (generally defined as October 15 through May 15).</p> <p>Where habitat for Federal and State listed species is identified on or adjacent to the project work site, construction and activities that may disturb the breeding, feeding, mating and sheltering of these species shall be limited to avoid potential impacts. If working within 75 feet of established riparian vegetation, work may not begin until after August 1. If construction must occur during this period, the RCDSCC/NRCS shall consult with CDFG or an individual approved by DFG shall conduct pre-construction surveys for bird nests or nesting activity in the project area. Bird nesting sites shall be avoided during the nesting season.</p> <p>For invasive species removal in upland and riparian habitat, work may continue until December 31st, if no known species occurrences are documented within the past two years. If historical information is not available for the site, protocol levels surveys will be conducted in the area to determine presence or absence of listed species prior to the onset of work. If listed species are present (or assumed present based on habitat), a Service-approved individual will be present during work activities. All work during the wet season will be completed by non-mechanized hand tools. Herbicide application will be hand-painted and carefully applied during non-windy days with no rain forecasted within 3-5 days.</p> <p>Work beyond the proposed construction period may be authorized following consultation with DFG, FWS, Corps, and/or NMFS and provided the work would be completed prior to first winter rains and stream flows.</p>
<p>Limitation on Earthmoving and Vegetation Removal (Site Disturbance)</p>	<p>In addition to the limitations on the amount of grading that can be performed, the following conditions apply to projects involving grading.</p> <p>Disturbance to existing grades and vegetation will be limited to the actual site of the conservation project and necessary access routes. Placement of temporary access roads, staging areas, and other facilities shall avoid and limit disturbance to habitat as much as possible. Disturbance of native shrubs, woody perennials or tree removal the streambank or stream channel shall be avoided or minimized to the fullest possible extent. If trees over 6" dbh (diameter at breast height) are to be removed, they will be replaced at a 3:1 ratio, unless the site is being restored to historical or other designated habitat. If riparian vegetation will be disturbed, it will be replaced with similar species. Finished grades will not be steeper than 2:1 side slopes unless pre-construction condition is so steep that site conditions prohibit a 2:1 slope on the final grade.</p> <p>Special care will be given to stands of riparian habitat of a size greater than 0.5 acres. As much as possible, project activities will avoid thinning out stands of riparian vegetation to minimize potential for increased cowbird predation. If vegetation removal is required in or around stands of this size, riparian vegetation will be cleared by hand, leaving as much as possible of the root</p>

	<p>wad and base of plants in tact. Following completion of construction, poles and branches will be replanted on banks.</p> <p>Implementation of practices shall minimize all potential contributions of sediment to waterways, and will result in short-term disturbance resulting in insignificant amounts of fine sediment during construction. To the greatest extent possible, excavated materials will be re-integrated on site. In the rare situations where excavated material is not used in the implementation of the practice it will be removed and placed at sites that have no direct connectivity to a waterway.</p> <p>Upon completion of grading, slope protection of all disturbed sites will be provided prior to the end of the construction season through a combination of permanent vegetative treatment, mulching, geotextiles, and/or rock. Only native plant species or non-invasive, non-persistent grass species will be used.</p>
<p>Limitations on Construction Equipment</p>	<p>Equipment operators will ensure that contamination of habitat does not occur during routine operations. The use or storage of petroleum-powered equipment shall be accomplished in a manner to prevent the potential release of petroleum materials into waters of the state (Fish and Game Code 5650). All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.</p> <p>The following precautionary measures will be adhered to:</p> <ol style="list-style-type: none"> 1. Schedule excavation and grading activities for dry weather periods. 2. A contained area is designated for equipment storage, short-term maintenance, and refueling. It is located 100 feet from waterbodies. If site conditions (property size) make this 100-foot distance infeasible, these activities will occur at the maximum distance possible from aquatic areas. 3. Vehicles are inspected for leaks and repaired immediately. 4. Leaks, drips and other spill are cleaned up immediately to avoid soil or groundwater contamination. 5. Major vehicle maintenance and washing are done off site. 6. All spent fluids including motor oil, radiator coolant, or other fluids and used vehicle batteries are collected, stored, and recycled as hazardous waste off site. 7. All construction debris and sediments are taken to appropriate landfills or in the case of sediments, disposed of away in upland areas or off-site. 8. Dry cleanup methods (i.e. absorbent materials, cat litter, and/or rags) are used whenever possible. If water is used, the minimal amount required to keep dust levels down is used. 9. Spilled dry materials are swept up immediately. <p>Heavy equipment shall not be used in flowing or standing water, except to cross a stream or pond to access the work site. When possible, equipment shall use existing ingress or egress points and/or perform work from the top of the creek banks. Use of heavy equipment shall be avoided in a channel bottom with rocky or cobbled substrate. If access to the work site requires heavy equipment to travel on a rocky or cobbled substrate, a rubber tire loader/backhoe is the preferred vehicle. Only after this option has been determined impossible will the use of tracked vehicles be considered. The amount of time this equipment is stationed, working, or traveling within the creek bed shall be minimized. When heavy equipment is used, woody debris and vegetation will be replaced to a similar density with native species. No staging will occur in wetlands. If it is not feasible to completely avoid movement of construction vehicles through wetlands, whenever possible rubber tired vehicles will be used or a mat will be laid down prior to moving across these areas.</p> <p><i>Additional measures for in-channel work in fish-bearing streams</i></p> <p>When work is conducted in fish-bearing streams, the following additional measures will be implemented.</p> <ul style="list-style-type: none"> • Oil absorbent and spill containment materials will be located on site when mechanical

	<p>equipment is in operation. If a spill occurs, (1) no additional work will occur in-channel until mechanical equipment has been inspected and the leak has been prepared, (2) the spill has been contained, and (3) the CDFG and NMFS are contacted to evaluate the impacts of the spill.</p> <ul style="list-style-type: none"> • All questionable motor oil coolant, transmission fluid, and hydraulic fluid hoses, fitting, and seals on construction equipment will be replaced. All mechanical equipment will be inspected on a daily basis to ensure there are no motor oil, transmission fluid, hydraulic fluid, or coolant leaks. All leaks will be repaired in the equipment staging area or other suitable location (away from watercourses) prior to resumption of construction activity. • Hydraulic fluids in mechanical equipment working within the active stream channel shall not contain organophosphate esters. • Construction equipment will be staged at least 100 feet from any watercourse with direct connectivity of Class 1 streams. If site conditions (property size) make this 100-ft distance infeasible, these activities will occur at the maximum distance possible from the watercourse. Equipment will be parked in the staging area when not in use. Equipment will not be parked or stored near the active channel. • During construction the operator will not dump any trash or construction debris into the wetted channel. • During the project activities, all trash and food that may attract potential predators of salmonids (e.g. raccoons, piscivores, etc.) will be properly contained, removed from the work site, and disposed of daily.
<p>Revegetation and Removal of Exotic Plants</p>	<p>The project area shall be restored to pre-construction condition or better. All exposed soil resulting from the project's construction activities shall be revegetated using live planting, seed casting or hydroseeding. Any stream bank area left barren of vegetation as a result of the implementation or maintenance of the practices shall be restored to a natural state by seeding, replanting, or other agreed upon means with native trees, shrubs, and/or grasses prior to the close of the construction season of the project year. Soil exposed as a result of construction, soil above rock riprap, and interstitial spaces between rocks shall be revegetated by live planting, seed casting, or hydroseeding prior to the close of the construction season. Annual inspections for the purpose of assessing the survival and growth of revegetated areas and the presence of exposed soil shall be conducted for two years following the end of the project installation. For projects that have removed native vegetation, post-construction revegetation success shall be equivalent or better to the pre-project condition provided in the project description. Revegetation success will be documented in the annual report provided to the regulatory agencies each year.</p> <p>The spread or introduction of exotic plant species shall be avoided to the maximum extent possible by avoiding areas with established native vegetation during project activities, restoring disturbed areas with native species where appropriate, and post-project monitoring and control of exotic species. Removal of invasive exotic species shall be strongly recommended. Mechanical removal (hand tools, weed whacking, hand pulling, brush raking) of exotics shall be done in preparation for establishment of perennial plantings. To the greatest extent possible, vegetation will be removed by hand. To the extent possible, revegetation should be implemented at the same time removal of exotic vegetation occurs. All plant material will be disposed of in a manner that will not allow re-establishment to occur.</p> <p>Native plants characteristic of the local habitat type shall be the preferred alternative when implementing and maintaining the practices in natural areas. Non-invasive, non-persistent grass species (i.e. barley grass) may be used as nurse crops or for their temporary erosion control benefits to stabilize disturbed slopes until natives are established.</p>
<p>Conditions for Erosion Control</p>	<p>Nearly all of the conservation practices included under the permit coordination program are designed to control erosion and sedimentation. However, the construction and installation of the practices can potentially result in short term, minor erosion or sedimentation. The following measures will be used to prevent or minimize sediment deposition as a result of implementation and maintenance of projects.</p>

	<p>Earthmoving activities will be completed prior to October 31. For any work conducted during the winter period (generally defined as October 15 through May 15), all inactive areas (defined as a five-day period) shall have all necessary soil stabilization practices in place two days after identification of inactivity or before a rain event, whichever comes first.</p> <p>Erosion control and sediment detention devices shall be incorporated into the project design and implemented at the time of construction. These devices shall be in place prior to the onset of rains for the purposes of minimizing fine sediment and sediment/water slurry input to flowing water, and of detaining water to retain sediment on-site. These devices will be placed at all locations where the likelihood of sediment input exists. Sediment collected in these devices shall be disposed of away from the collection site and above the normal high-water mark.</p> <p>The project site shall be restored to pre-construction condition or better. Streambank, ground and/or soil (except for soil in agricultural fields) exposed as a result of construction, soil above toe-rock shall be revegetated by live planting, seed casting, or hydroseeding prior to the close of the construction season of the project year.</p> <p>All debris, sediment, rubbish, vegetation or other material removed from waterway shall be removed to a location where they shall not re-enter the waters of the state.</p>
<p>Limitations on Work in Streams and Permanently Poned Areas</p>	<p>If it is necessary to conduct work in or near a live stream, the workspace shall be isolated from flowing water to prevent sedimentation and turbidity. 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 increases in turbidity levels beyond the naturally occurring, background conditions. Prior to construction activities, sandbag cofferdams, straw bales, silt fences, culverts or visquen (diversions) shall be installed to divert streamflow away from or around workspace at an appropriate rate to maintain downstream flows during construction.</p> <p>The implementation and maintenance of projects shall not result in sediment delivery to a clean bottom of stream channel. A "clean" bottom is characterized by natural stream substrate (cobble, gravel and small stones or similar to background conditions).</p> <p>If the substrate of a seasonal pond, creek, stream or water body is altered during work activities and the alteration is not the goal of the practice being implemented (i.e. channel stabilization), it shall be returned to approximate pre-construction conditions after the work is completed, unless the NRCS and NMFS or DFG determine that other measures should be implemented.</p> <p>All debris, sediment, rubbish, vegetation or other material removed from the channel banks, channel bottom, or sediment basins shall be removed to a location where they shall not re-enter the waters of the state. All petroleum products chemicals, silt, fine soils, and any substance or material deleterious to fish, plant, or bird life shall not be allowed to pass into, or be placed where it can pass into the waters of the State.</p> <p><i>Fish-Bearing Streams vs. Non-Fish-Bearing Streams</i></p> <p>If a project requires dewatering any area (with the exception of a fish-bearing stream), either a pump shall remove water to an upland disposal site, or a filtering system shall be used to collect the water and return clear water to the creek.</p> <p>If dewatering in a fish-bearing stream is proposed as part of a project implemented under the permit coordination program, the RCDS/CC/NRCS will comply with the terms and conditions outlined in the Biological Opinion, and any subsequent conditions, issued by NMFS for this project.</p>
<p>Limitations on use of</p>	<p>Except as noted below, no pesticides or soil amendments shall be used in the streambed or bank to hasten or improve the growth of critical area plantings. Soil amendments will only be used</p>

Herbicides	<p>when the establishment of new plants is prohibited by poor soil structure that cannot support new plantings. In most circumstances, organic amendments shall be used to ensure successful establishment of restoration vegetation associated with the practices. In situations where organic amendments will not guarantee adequate establishment of restoration vegetation, application rates for non-organic soil amendments will be based on soil nutrient testing and shall utilize slow release or split applications to minimize leaching or runoff into water bodies. Soil amendments may be used on stream banks above the normal high water mark during the year of planting if necessary.</p> <p>Where it is necessary to use herbicides to control established stands of exotics or to control the invasion of exotics into restoration plantings, the herbicides must be applied according to registered label conditions. Herbicides must be applied directly to plants and may not be spread upon any water or where they can leach into waterways in subsequent rains. Herbicides may be applied to control established stands of non-native species including Vinca, Ivys, and Brooms.</p>
-------------------	---

The following additional protection measures will be implemented when each of the following conservation practices are implemented as part of a project under the permit coordination program.

Environmental Protection Measures and Conditions for Specific Conservation Practices

Planting (342, 612, 422, 391) and Restoration and Management of Declining Habitats (643)	<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 invasive species will not be planted. •To meet success criteria for revegetation or invasive plant removal, maintenance will occur as needed within appropriate temporal limitations. •When implementing or maintaining a Planting above the high water line, a filter fabric fence, fiber rolls and/or straw bales shall be utilized, if needed, to keep sediment from flowing into the adjacent water body. Straw bales would likely be separated and used as mulch. Planting above the ordinary high water mark that does not involve soil disturbance may occur at any time of the year¹. When vegetation is sufficiently mature to provide erosion control, it may be appropriate to remove the fence, fiber rolls and/or hay bales. Annual review by RCDS/CC/NRCS shall occur until the critical area planting is established to control erosion.
Structure for Water Control (587)	<ul style="list-style-type: none"> • Crossings will be consistent with California Department of Fish and Game's "Culvert Criteria for Fish Passage" (April 2003) and National Marine Fisheries Service Southwest Region's "Guidelines for Salmonid Passage as Stream Crossings" (September, 2001). RCDS/CC/NRCS • Ditch relief culverts which outlet onto a slope >30% will have a review letter by NRCS.
Access Road (Improvement) (560)	<ul style="list-style-type: none"> •Road improvements in Santa Cruz County are modeled on the "Handbook for Forest and Ranch Roads: A Guide for planning, designing, constructing, reconstructing, maintaining and closing wildland roads," by William Weaver and Danny Hagens.
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 subwatershed. Diversion does not involve diverting water from a waterway.
Underground Outlet (620)	<ul style="list-style-type: none"> • A properly sized energy dissipater shall be installed to reduce bank scour and bank erosion when a pipe or structure that empties into a stream (underground outlet).
Grade Stabilization	<ul style="list-style-type: none"> • Construction and maintenance of Grade Stabilization Structures in streams or creeks that support a fishery are not covered under this program. Structures may be installed in gullies

¹ The "ordinary high water mark" on non-tidal rivers is defined by the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas. Some indicators of the ordinary high water mark include water staining, shelving, and evidence of debris, among other potential indicators.

Structure (410)	and non-fish bearing streams. Projects seeking to implement conservation practices in fish habitat must seek individual permits from appropriate public agencies.
Stream Channel Stabilization (584)	<ul style="list-style-type: none"> •Construction and maintenance of any practice that results in a change in volume of flow in streams that support a fishery are not covered under this program. •Sediment removal from the stream channel or ponds may occur if it will improve biological functioning of the stream and restore channel capacity. Sediment removal would occur as a one-time event and not a repeated maintenance practice. Sediment removal may not occur in a flowing stream or standing water. Sediment will not be stored in wetlands or waterways.
Streambank Protection (580)	<ul style="list-style-type: none"> •Construction and maintenance of any practice that results in a change in volume of flow in streams that support a fishery are not covered under this program. •No creosote treated timbers shall be used for grade or channel stabilization structures, bulkheads or other instream structures. No gabions or concrete will be used in fish bearing streams. In non-fish-bearing streams they may be used above the high water mark. Grouted rock may be used for implementation of the Grade Stabilization practice at the head of gullies. Use of grouted rock will be minimized. Grouted rock would not be used on the bed or bank of a waterway.
Stream Crossing (578)	•Construction and maintenance of any practice that results in a change in volume of flow in streams that support a fishery are not covered under this program.
Fish Passage Improvement (396)	<ul style="list-style-type: none"> •Construction and maintenance of any practice that results in a change in volume of flow in streams that support a fishery are not covered under this program. •Practices will be designed and implemented in accordance with the California Department of Fish and Game's <i>California Salmonid Stream Habitat Restoration Manual</i>. •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.
Upland Wildlife Habitat Management (645, 382, 516, 614)	<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. If dewatering in a fish-bearing stream is proposed as part of a project implemented under the permit coordination program, the RCDS/CC/NRCS will comply with the terms and conditions outlined in the Biological Opinion, and any subsequent conditions, issued by NMFS for this project. •No development of new water sources is included in this practice.
Sediment Basin and Water (350) [with or without Structure for Water Control (638)]	<ul style="list-style-type: none"> •Maintenance may occur only after August 1st. •Sediment basins shall not be constructed in a stream channel or other permanent water bodies. The work may involve grading along one shore of the stream to remove gullies or eroded banks prior to building a stream-side basin. 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.
Wetland Management (657, 659, 356, 587, 644)	<ul style="list-style-type: none"> •Activities will seek to emulate the functions of undisturbed conditions. •Activities will not result in significant loss of vegetation or disturbance which would negatively impact species' habitat, cover, food, etc.
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 where the project requires removal of larger items such as cars and appliances. Large objects removed from the area will be lifted out of the area, ensuring the obstruction is kept upright during removal and will not be 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 would be used to lift the obstruction out of the area. Additional limitations on the use of construction equipment are described in the General Project Conditions under Limitations on Construction Equipment. •If dewatering in a fish-bearing stream is proposed as part of a project implemented under the permit coordination program, the RCDS/CC/NRCS will comply with the terms and conditions outlined in the Biological Opinion, and any subsequent conditions, issued by NMFS for this project.