CALIFORNIA COASTAL COMMISSION





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STAFF RECOMMENDATION ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-036-03
Staff:	LJS-SF
File Date:	5/1/03
60 th Day:	6/30/03
75 th Day:	7/15/03
Commission Meeting:	6/13/03

FEDERAL AGENCY: Natural Resources Conservation Service

<u>PROJECT</u> LOCATION:

DESCRIPTION:

PROJECT

Morro Bay Watershed and Estuary, San Luis Obispo County (Exhibits 1 and 2).

General consistency determination for the implementation of the Morro Bay Partners in Restoration Permit Coordination Program. This project involves the construction/installation of Best Management Practices to encourage and support landowners in their efforts to reduce nonpoint source pollution and enhance terrestrial and aquatic habitat in the Morro Bay watershed and estuary. Specific development activities include the construction/ installation of clearing and snagging, critical area planting, diversions, filter strips, fish stream improvements, grade stabilization structures, grassed waterways, pipelines, sediment basins, streambank protection, stream channel stabilization, stream corridor improvements, tanks and troughs, underground outlets, and water and sediment control basins.

SUBSTANTIVE FILE DOCUMENTS:

See Page 17.



EXECUTIVE SUMMARY

The Natural Resources Conservation Service (NRCS) submitted a general consistency determination for the Morro Bay Partners in Restoration Permit Coordination Program. This project is designed to control erosion and restore habitat on private agricultural land within the Morro Bay watershed by constructing and implementing fifteen Best Management Practices (BMPs). In addition to improving coastal water quality, this project will maintain the prime and unique agricultural soils that are characteristic of this watershed. Therefore, the project is consistent with the marine resources, habitat, and agricultural policies of the California Coastal Management Program (CCMP). To address potential cumulative impacts to sensitive habitats and coastal water quality associated with the construction and installation of the selected BMPs, the project includes environmental safeguards. These protections will ensure that the project conforms to the policies of the Coastal Act protecting environmentally sensitive habitats and the quality and biological productivity of coastal waters. The subject proposal is similar to those the NRCS has implemented (and the Commission has concurred with) for the Elkhorn Slough and Salinas River watersheds.

In addition, NRCS proposes to notify the Coastal Commission of each individual project at least ten working days prior to implementation. This notice will include the location, goals, and description of the conservation work. The notice will also provide the Commission with an opportunity to confirm that each individual project conforms to this General Consistency Determination. NRCS will also provide to the Commission an annual status report for the program. The report shall list participating land owners, describe each project purpose, area affected, natural biological enhancements, and amount of yardage, cut and slope of the work. It shall list conservation benefits and any net gains in wetlands and riparian areas, describe actions taken to avoid jeopardy to listed species, describe listed species adversely affected by the projects, and provide photo documentation of before and after site conditions.

STAFF SUMMARY AND RECOMMENDATION:

I. Staff Note/Procedures.

The NRCS submitted a general consistency determination for a program to reduce polluted runoff in the Morro Bay watershed, and, therefore, the Commission is reviewing general types of activities rather than a specific project. NRCS has made this consistency determination pursuant to the federal regulations implementing the Coastal Zone Management Act (CZMA). These regulations provide that:

In cases where Federal agencies will be performing repeated activity other than a development project (e.g., ongoing maintenance, waste disposal) which cumulatively has an effect upon any coastal use or resource, the Federal agency may develop a general consistency determination, thereby avoiding the necessity of issuing separate consistency determinations for each incremental action controlled by the major activity. A Federal agency may provide a State agency with a general consistency determination only in situations where the incremental actions are repetitive and do not affect any coastal use or resource when performed separately. A Federal agency and State agency may mutually agree on a general consistency determination for de minimis activities (see §930.33(a)(3)) or any other repetitive activity or category of activity(ies). If a Federal agency issues a general consistency determination, it shall thereafter periodically consult with the State agency to discuss the manner in which the incremental actions are being undertaken.¹

A Commission concurrence with this consistency determination will allow the NRCS to construct and install the proposed Best Management Practices (BMPs) for the control of sedimentation within the Morro Bay watershed, without further formal review by the Coastal Commission. The NRCS has, however, agreed to notify Commission staff of each individual project before its implementation, so that it can be reviewed for compliance with this consistency determination. Any activities that do not fall within the scope of the Morro Bay watershed program and this consistency determination will be subject to normal regulatory review processes.

The proposed project is coordinated among the NRCS, the Coastal San Luis Resource Conservation District (RCD), Sustainable Conservation (a non-profit organization), and private land owners, lessees, and managers on whose property the BMPs will be installed. These BMPs are based upon federal statutory recommendations for the control of polluted runoff. NRCS has established specific guidelines and procedures for the installation and maintenance of the BMPs to ensure that project development activities, implemented with the assistance of the RCD and landowner/operator, are consistent with federal objectives and comply with all applicable state and federal regulations, as further discussed below.

The NRCS and the RCD both provide technical assistance under this project. The NRCS funds their technical assistance activities under the project through under the authority of the federal Watershed Protection and Flood Prevention Act and USDA Programs such as the Environmental Quality Incentives Program (EQIP). The RCD funds their activities through on-going grants from private foundations and public entities. Cost share funding for individual projects can also be provided by both the NRCS through programs such as EQIP and the RCD through programs such as Project Clearwater. Cost share funding can be up to 90% of the total project cost, depending on the program. The remaining project costs are borne by the participating landowner/operator. In most instances, this contribution is provided in the form of in-kind labor, but it can also include cash contributions and funding obtained by the landowner/operator through such programs as the California Department of Fish and Game's Salmon Restoration Grant Program, among others.



¹ 15 CFR §930.36(c).

The NRCS and RCD act as a technical assistance team to assist growers and landowners on the development of practices to reduce erosion and sediment yields from lands in the drainage basin. Activities include baseline identification, outreach and marketing, local participation, on-farm testing and delivery, institutional strengthening, and monitoring and evaluation. All works of improvement must be installed, operated, and maintained in accordance with specified terms, conditions, and stipulations. NRCS staff periodically inspects project installation and maintenance to ensure compliance with these provisions. This framework ensures that all project activities undertaken by non-federal entities will be fully consistent with the federally specified project objectives and procedures referenced in the submitted consistency determination, which are described and analyzed in subsequent sections of this staff report.

Due to the specific nature of the proposed development, and the clearly defined process by which the BMPs will be implemented and maintained, the role of non-federal project participants is ministerial; activities undertaken by the participating non-federal entities must comply with the standards and specifications used by the NRCS. Given this fact, and in light of the federal goals that will be achieved with significant federal funding and oversight, the participation of nonfederal entities in carrying out this federal project does not trigger the need for separate coastal development permits. Nevertheless, any coastal development activities undertaken by the RCD, landowner, or operator outside of the specific parameters of the Morro Bay watershed program and associated consistency determination will require separate coastal development permit review by San Luis Obispo County and/or the Coastal Commission.

Federal consistency review is therefore an appropriate way for the Commission to evaluate the Chapter 3 consistency of this federal project, which is exempt from CDP requirements. Commission concurrence with this federal consistency determination will satisfy all coastal development review requirements for this federal project both within the CDP jurisdiction of San Luis Obispo as well as within the Commission's original jurisdiction. As noted above, any development activities that are not specifically authorized by this consistency determination will be subject to normal CDP requirements if located within the coastal zone.

II. Status of Local Coastal Program.

The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the Commission certified the LCP and incorporated it into the California Coastal Management Program (CCMP), the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. Neither the Morro Bay LCP nor the San Luis Obispo County LCP have been incorporated into the CCMP.

III. Project Description.

The NCRS proposes the construction and installation of fifteen BMPs for the control of erosion, sedimentation, and other discharges into the Morro Bay watershed (Exhibits 1 and 2). BMPs are

land management techniques, methods, and devices that increase efficiency and natural resource protection. The proposed BMPs are listed below (detailed descriptions of each BMP are provided in Exhibit 3):

- 1. <u>Clearing and Snagging</u>. Removing snags, drifts, or other obstructions from a channel.
- 2. <u>Critical Area Planting</u>. Planting vegetation on highly erodible areas.
- 3. <u>Diversion</u>. An earth channel constructed across a slope with a supporting ridge on the lower side.
- 4. <u>Filter Strip</u>. A strip of vegetation for removing sediment, organic matter, and other pollutants from runoff.
- 5. <u>Fish Stream Improvement</u>. Improving a stream channel to create new fish habitat or to enhance existing habitat.
- 6. <u>Grade Stabilization Structure</u>. A structure built into a creek bed, channel bottom, or gully to control the grade and prevent head cutting.
- 7. <u>Grassed Waterway</u>. A natural or constructed channel that is shaped or graded to required dimensions and established with suitable vegetation to convey runoff.
- 8. <u>Pipeline</u>. Installed to convey water for livestock or recreation.
- 9. <u>Sediment Basin</u>. Constructed to collect or store debris or sediment; not constructed in stream channels.
- 10. <u>Streambank Protection</u>. Using vegetation or structures to stabilize and protect banks against scour and erosion.
- 11. <u>Stream Channel Stabilization</u>. Stabilizing the channel of a stream with suitable structures.
- 12. <u>Stream Corridor Improvement</u>. Restoration of a modified or damaged stream to a more natural state using bioengineering techniques.
- 13. Tank or Trough. Installed to provide drinking water for livestock.
- 14. <u>Underground Outlet</u>. A conduit installed beneath the surface of the ground to collect surface water and convey it to a suitable outlet.

15. <u>Water and Sediment Control Basin</u>. An earthen embankment or a combination ridge and channel generally constructed across the slope and minor watercourses to form a sediment trap and water detention basin.

The NRCS will select and implement these BMPs using a cooperative approach between the NRCS and the participating landowner. At the request of the landowner or operator, NRCS reviews the particular problems and needs of the site, and recommends appropriate conservation practices that are then selected by the landowner or operator. NRCS oversees the site-specific design of the practices, applying appropriate mitigation measures to ensure that the project will not have an adverse impact on environmental resources. NRCS then monitors the implementation and maintenance of the practices to assure successful performance and resource protection.

In order to protect sensitive resources, the NRCS has incorporated several environmental protections into the proposed project. These measures are listed below (detailed descriptions of each measure are provided in Exhibit 4):

- Training and Education of Staff, Client, and Contractor
- Temporal Limitations on Construction
- Limitations on Project Size
- Limitations on Grading
- Limitations on Construction Equipment
- Revegetation and Removal of Exotic Plants
- Conditions for Erosion Control
- Limitations on Work in Streams and Permanently Ponded Areas
- Limitations on Use of Herbicides, Pesticides, and Fertilizers

The consistency determination states that:

The NCRS and CSLRCD anticipate 25-40 conservation projects to result from the implementation of this program over five years. These projects will occur at sites yet to be determined within the watershed, on a variety of terrain including range and grasslands, agricultural fields, riparian areas and streams. The vast majority of the projects will target areas that are environmentally degraded or agricultural areas that are having a negative effect on natural systems. The focus of these projects is to reduce this degradation and enhance natural resources. These projects are expected to result in a reduction in erosion

in the watershed and a decrease in the quantity of sediment flowing to Morro Bay and, as a result, improve the water quality and wildlife habitat in the watershed.

The proposed program builds on the success of the NRCS' pilot program in the Elkhorn Slough watershed, where 24 conservation projects have been completed to date (CD-051-98). The program facilitates voluntary conservation on private property and builds on existing regional programs and agency priorities. The erosion control and conservation practices and the interagency cooperation incorporated into this program support a variety of national, regional, and local conservation priorities, including the Commission and State Water Resources Control Board's *California Nonpoint Source Pollution Control Program (NSPCP)*. The NSPCP focuses on implementation of Management Measures (programs, plans, implementation of BMPs, grants, etc.) that together will address and reduce nonpoint source pollution in the state. The consistency determination states that the NRCS' proposed Morro Bay watershed Partners in Restoration (PIR) program:

 \dots is included in NSPCP's Five-Year Implementation Plan as a primary objective of Management Measure Agriculture 1A – Erosion and Sediment Control. This plan calls for placing PIR programs in 50 watersheds over the next five years.

IV. Project Location.

Morro Bay is the largest area of salt marsh, lagoon, and estuary along the central California coast, and its watershed encompasses an area of approximately 48,450 acres. The NRCS consistency determination for the proposed watershed enhancement program examines the adverse effects on erosion and water quality generated by decades of development in the Morro Bay watershed:

This severely accelerated erosion and sedimentation are quickly filling Morro Bay – it has lost more than a quarter of its volume over the past 100 years. At the current accelerated rate of sedimentation, Morro Bay will cease functioning as a salt-water estuary within 300 years, according to Morro Bay Watershed Enhancement Plan prepared by the USDA Soil Conservation Service. Water quality problems in Morro Bay have been associated with runoff or nonpoint source pollution from National Forest lands, rangelands, streams, roads, and agricultural lands. Further compounding the problems, the 1994 "Highway 41 Fire" in the upper Chorro Creek watershed burned 9,700 acres and the torrential rains that followed in early 1995 caused severe flooding and erosion. Other associated water quality concerns in the watershed include excessive levels of bacteria, high levels of nitrates in groundwater supplies, and heavy metals in the bay and watershed.

As a result, the NRCS reports that landowners, government agencies, and environmental groups are interested in promoting sustainable resource management practices in the Morro Bay watershed, primarily through the use of Best Management Practices (BMPs). The BMPs proposed for use in the Morro Bay watershed are promoted by the U.S. Department of Agriculture, U.S. EPA, and the National Estuary Program to improve water quality, preserve

important agricultural lands, and protect the health of the watershed and estuary. In addition, the proposed BMPs are successfully reducing soil erosion and water quality degradation in a similar ongoing program in the Elkhorn Slough watershed in Monterey County.

The proposed NRCS enhancement program includes erosion control and habitat restoration projects which could occur on the following waterways within the Morro Bay watershed:

- San Bernardo Creek
- San Luisito Creek
- Walters Creek
- Pennington Creek
- Dairy Creek
- Chorro Creek (and its tributaries)
- Los Osos Creek (and its tributaries)
- Warden Creek (and its tributaries)
- Eto Lake (and its tributaries)
- Warden Lake (and its tributaries)
- The lesser tributaries to Morro Bay

V. Federal Agency's Consistency Determination.

The Natural Resources Conservation Service has determined the proposed project consistent to the maximum extent practicable with the California Coastal Management Program.

VI. Staff Recommendation.

The staff recommends that the Commission adopt the following motion:

<u>MOTION</u>: I move that the Commission **concur** with consistency determination CD-036-03 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).

Staff Recommendation:

The staff recommends a **YES** vote on the motion. Passage of this motion will result in a concurrence with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

Resolution to Concur with Consistency Determination:

The Commission hereby <u>concurs</u> with the consistency determination by the Natural Resources Conservation Service, on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

VII. Findings and Declarations.

The Commission finds and declares as follows:

A. <u>Environmentally Sensitive Habitats</u>. The Coastal Act provides the following policy regarding environmentally sensitive habitat:

Section 30240

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

The sensitive riverine, estuarine, marine, wetland and riparian habitat values of the Morro Bay watershed and estuary are jeopardized by the impacts of sedimentation, which smothers aquatic habitats, decreases water quality, and can introduce contaminants into the food chain. One of the primary purposes of this project is to protect environmentally sensitive habitat areas from further degradation by reducing sedimentation and erosion caused adjacent agricultural development. Because the protection and enhancement of the sensitive resources of the watershed are dependent upon the implementation of such improvements, the program is consistent with Coastal Act Section 32040(a).

The Commission previously authorized programs similar to the proposed project for the Elkhorn Slough watershed (CD-051-98) and for the Salinas River watershed (CD-096-01). In those consistency determinations, the Commission concurred with programs that allowed the NRCS to work with farmers and landowners to implement BMPs to reduce runoff and sedimentation into Elkhorn Slough and the Salinas River. In the subject consistency determination, the NRCS reported on the success of the Elkhorn Slough program:

In Elkhorn Slough, the results from the first two years of the program were much greater than originally projected. Eighteen cooperators have participated in the program and, with NRCS assistance, have designed and implemented 24 projects. To date, an estimated 15,841 cubic yards (21,385 tons) of sediment have been prevented from washing downstream into the sensitive wetlands of Elkhorn Slough and the Monterey Bay National Marine Sanctuary. We expect to see similar results in the Morro Bay watershed.

The Commission incorporates, by reference, into this report the concurrence findings for the Elkhorn Slough Watershed Program (CD-051-98) and the Salinas River Watershed Program (CD-096-01).

Similar to those projects, the proposed Morro Bay program will result in improved control of agricultural runoff and reduce sedimentation and pollution of coastal waters, which adversely affects environmentally sensitive habitat areas. This project will protect, enhance, and restore environmentally sensitive habitat areas that have been adversely affected by increased sedimentation and the associated loss of aquatic habitats and degradation of coastal water quality. In addition, some of the BMPs (e.g., Stream Channel Stabilization) involve the removal of accumulated sediment from dry creek beds, which will increase the number of deep pools required by aquatic animals to survive the long, dry California summers. Other practices (e.g., critical area planting, and streambank protection) will provide shelter from predators, breeding, foraging and roosting sites for the sensitive, rare, and endangered wildlife species of the watershed. These practices will also improve fish habitat by stabilizing banks and increasing shading.

Other habitat benefits that will result from this project include providing greater connectivity of habitat areas (e.g., revegetating unvegetated sections of streambanks) and improved buffering of sensitive habitat areas (e.g., separating agricultural areas from habitat areas with filter strips). Furthermore, implementation of this project will improve general knowledge regarding the implementation and effectiveness of BMPs for the control of polluted runoff, and thus provide valuable insight as to how these practices can be best applied throughout the State to restore and enhance ESHAs. Since the purpose of this program is to protect and restore ESHAs, it is dependent on the sensitive resource it protects. Therefore, it is consistent with the resource dependent test of Section 30240(a) of the Coastal Act.

Even though this program will benefit ESHAs, its implementation, which in many instances will be within or near wetlands, riparian, or other sensitive habitats, has the potential to have temporary adverse impacts on these resources. These potential impacts include temporary disturbance of habitat, harassment of individual animals, and in certain cases, the mortality of individual special status plant or animal species. Project components that could result in such impacts include soil excavation or grading, preparation of the ground for seeding and mulching, grade and stream stabilization, channel excavation, construction of earthen embankments, placement of fill, vegetation removal, and trampling or crushing of vegetation.

To protect these environmentally sensitive habitats, the proposed practices have been customized in time and manner of implementation after consultations with the U.S. Fish and Wildlife Service, the California Department of Fish and Game, and Coastal Commission staff. The environmental commitments are described in Exhibit 4 (Environmental Protection Measures). These measures are designed to minimize impacts to sensitive species and reduce discharges into the Morro Bay and its tributaries. In addition, the NRCS' commitments provide for the restoration of areas

disturbed by projects authorized by this program and provide for measures to reduce the spread or introduction of exotic species. The NRCS proposes limits to the size and scale of the projects implemented under this program. These limits are described in Exhibit 4 (see: Limitations on Project Size, Table 6). With these environmental commitments and size limitations, the program will not significantly disrupt or degrade ESHAs.

The above mitigation/management measures will ensure that the localized short-term impacts on sensitive habitats that could result from the project will not have a significant adverse affect on environmentally sensitive habitats. The long-term benefits of the project will enhance riparian vegetation and bank stability, provide additional habitat areas for foraging, breeding, and shelter, and control erosion and pesticides from agricultural fields improving water quality and aquatic habitats. The Commission finds that the project is consistent with the environmentally sensitive habitat policies of Section 30240 of the Coastal Act.

B. Marine Resources/Water Quality. The Coastal Act provides the following:

Section 30230

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30232

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

Section 30233

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

... (7) Restoration purposes.

Section 30236

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

As previously discussed, the proposed project is designed to improve the control of agricultural runoff which may contain sediments and pesticides that are detrimental to marine resources and coastal water quality. Soil eroded from cropland as sediment usually contains a high percentage of fine textured clay particles. These lighter soil particles are more likely to bind to pollutants than coarser grained sediments, and, therefore, transport higher concentrations of nitrogen, phosphorous, and pesticides. The discharge of such materials into the marine environment results in increased turbidity, covering of existing benthic and intertidal habitats, water and sediment pollutants, and growth of algae, which can reduce the amount of available oxygen. The improved control of agricultural sediments and associated pesticides will therefore benefit marine resources and coastal water quality consistent with the above-referenced Coastal Act policies.

However, implementation of the BMPs may generate short-term impacts on these resources. For example, during activities associated with the installation of Critical Area Plantings or Grassed Waterways (e.g., grading, seedbed preparation, seeding, and mulching), quantities of sediment and associated chemicals could be washed into surface waters prior to plant establishment. In addition, use of herbicides may be necessary to control invasive non-native vegetation within project planting, and thus some pesticides and herbicides could enter surface runoff.

To address these potential impacts, the project has incorporated the following mitigation/ monitoring measures:

• When implementing or maintaining the Critical Area Planting practice, the NRCS will use filter fabric, fence and hay bales when needed to keep soil from flowing into adjacent waterbodies. The NRCS will maintain these measures until revegetation is sufficiently mature to provide effective erosion control;

- The NRCS will restore work area to a natural state through seeding or replanting with native species of trees, shrubs, and grasses as soon as possible upon completion of the project, but in no case beyond 30 days during the wet season (November 1 through June 15) and within one month prior to the wet season when work occurs in the dry season (June 15 through November 1);
- Where it is necessary to use herbicides to control exotic vegetation, the NRCS will apply them according to registered label conditions. In situations where organic amendment will not be adequate, the NRCS will use application rates for chemical fertilizers based on soil nutrient testing and slow release or split applications to minimize leaching or runoff into water bodies;
- All petroleum products, chemicals, silt, fine soils, and any substance deleterious to fish, plant, or bird life shall not be allowed to pass into, or be placed where it can pass into, waters of the state;
- When implementing or maintaining a sediment basin, increases in suspended sediment turbidity at the basin outlet shall be kept below 10% of background; and
- All practices installed will be annually inspected to ensure affective functioning and to resolve any problems.

In addition to the mitigation/monitoring measures identified above, the project includes the following measures for any grading that will occur adjacent to or within creeks, streams, wetlands, and sloughs:

- The NRCS will work in a dry or non-flowing channel, between June 15 and November 1;
- The NRCS will limit disturbance to existing grades and vegetation to the actual site of the management practice and necessary access route;
- The NRCS will not store equipment within 50 feet of a stream channel;
- The NRCS will not use finished grades that exceed 2:1 side slopes;
- Upon completion of grading, the NRCS will protect all disturbed slopes through of vegetative treatment, mulching, geotextiles, and/or rock; and,
- The NRCS will install energy dissipaters to protect the channel bottom or sides from water discharges emanating from erosion control structures.

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With these mitigation measures, the project has been designed to avoid potential adverse impacts that could result from the discharge of sediments during the implementation of the practices, consistent with Sections 30230, 30231, and 30232 of the Coastal Act.

In addition to the requirements to protect the quality and biological productivity of the marine environment through, among other means, controlling the discharge of hazardous substances and polluted runoff, Sections 30233 and 30236 of the Coastal Act places limitations upon the construction of erosion control structures, flood control facilities, or any other structure that results in the diking, filing, or dredging of marine, riverine, estuarine, and wetland environments. This is in recognition of the fact that such structures can diminish the biological productivity of such areas, and that the control of sediment can reduce the sand supply of local beaches. BMPs included within the project that may involve in-stream structures, such as Grade Stabilization Structures, Streambank Protection, and Stream Channel Stabilization, must be analyzed for conformance with these policies.

Section 30233 of the Coastal Act allows for the diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes for restoration purposes. Similarly, Section 30236 authorizes channelizations, dams, or other substantial alterations of rivers and streams in developments where the primary function is the improvement of fish and wildlife habitat. As previously discussed, the primary purpose of this project is to improve the control of agricultural runoff, in order to restore, protect, and enhance the sensitive environmental resources of the Morro Bay watershed. Therefore, the project qualifies as a restoration project that will improve fish and wildlife habitat and is consistent with Coastal Act Sections 30233 and 30236.

As required by these Coastal Act policies, such activities must be limited to situations where there is not a feasible, less environmentally damaging alternative and where the best mitigation measures feasible have been provided to minimize adverse environmental effects. With respect to the requirement that these activities be undertaken when there are no feasible, less environmentally damaging alternatives, the NRCS designed the project to address streambank protection by controlling the streambed grade before more permanent, and potentially more damaging, types of engineered bank protection is installed. The NRCS has committed to only using such structures if they are the least damaging alternative. Regarding the need to minimize adverse affects on environmental resources to the greatest degree feasible, the aforementioned mitigation/monitoring measures that have been incorporated within the project appropriately satisfy this requirement. With these mitigation/monitoring measures, the potential short-term adverse impacts to streams, wetlands, estuarine, and marine resources will be avoided and the project will have a long-term benefit to the biological productivity and quality of coastal waters.

Consistent with Sections 30230, 30231, and 30232 of the Coastal Act, the project is designed to maintain, restore, and enhance the biological productivity and quality of coastal waters. Because it is a restoration project, and because appropriate and feasible mitigation measures have been incorporated into the project to ensure that it will not have a significant adverse impact on coastal resources, the Commission finds that the program is consistent with the water quality and coastal water resource protection policies of Sections 30233 and 30236 of the Coastal Act.

C. <u>Agricultural Resources</u>. The Coastal Act provides the following policies regarding protection of agricultural resources:

Section 30241

The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas agricultural economy

Section 30242

All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless (1) continued or renewed agricultural use is not feasible; or, (2) such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. Any such conversion shall be compatible with continued agricultural use on surrounding lands.

Section 30243

The long-term productivity of soils and timberlands shall be protected, and conversions of coastal commercial timberlands in units of commercial size to other uses or their division into units of noncommercial size shall be limited to providing for necessary timber processing and related facilities.

Consistent with these Coastal Act policies, the project will help maintain the long-term agricultural productivity of agricultural soils in the watershed, primarily by reducing the loss of valuable top soil that may otherwise be lost through erosion. In addition, by improving the compatibility between agriculture land uses and the protection of sensitive habitat areas, the project will assist in preserving the long-term viability of both of these important resources. The potential exists, however, for some small amounts of agricultural land, including prime agricultural soils, to need to be taken out of production in order to accommodate the proposed BMPs. This is not, however, considered a conversion to non-agricultural use, as these facilities serve the agricultural purpose of controlling erosion. In addition, the beneficial impact of retaining significant amounts of soil on site that would otherwise be lost to erosion will greatly outweigh the minor loss in areas of production. Therefore, the Commission finds that the project is consistent with Coastal Act policies protecting agricultural resources (Sections 30241-30243).

D. Archaeological Resources. The Coastal Act provides the following:

Section 30244

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Native American archaeological sites occur within the project area. In most cases, however, the BMPs will take place on lands that have been previously cultivated, and will not exceed the depth, extent, or kind of previous agricultural activities that have already been undertaken. In instances where BMPs will be installed in areas that have not been cultivated, they typically do not involve any ground disturbance. Therefore, the installation of BMPs will likely not have a significant impact on archaeological or paleontological resources.

Nevertheless, according to the submitted consistency determination, NRCS is responsible for complying with the cultural resources provisions contained in the Programmatic Agreement (PA) between the Advisory Council on Historic Preservation and the National Council of State Historic Preservation Officers. Those proposed NRCS best management practices that qualify as an "undertaking" by the PA will trigger the need to review relevant cultural resources data from the Central Coast Information Center at UC Santa Barbara, and to complete a field inspection to relocate previously known cultural resources and/or possibly locate previously undiscovered cultural resources. All NRCS field personnel participating in this project will complete the Natural Cultural Resources Training Program required by the PA. In addition, the NCRS will:

... consult with appropriate tribes (as identified by the Native American Heritage Commission or the National Park Service), public groups, individuals, and SHPO/THPO to identify potential cultural resources in the Morro Bay watershed and [to] evaluate and discuss whether they would be adversely affected by the proposed program, and how this impact could be minimized or avoided.

The consistency determination states that if unanticipated cultural resources are discovered, or it is determined that cultural properties will be affected in a previously unanticipated manner, then NRCS will protect such resources from damage to the fullest extent possible by halting actions affecting the resource, and notifying the NRCS cultural resources coordinator. The consistency determination further states that if human remains are uncovered, the NRCS will follow procedures established by the Native American Heritage Commission, which includes the immediate cessation of work in the area and the notification of the County Coroner. With these elements, the Morro Bay watershed program includes reasonable mitigation measures for the protection of archaeological and paleontological resources, and the Commission therefore finds the project consistent with Section 30244 of the Coastal Act.

SUBSTANTIVE FILE DOCUMENTS:

- 1. San Luis Obispo County Local Coastal Program.
- 2. City of Morro Bay Local Coastal Program.
- 3. Morro Bay Partners in Restoration Permit Coordination Program Project Proposal (Natural Resources Conservation Service, Coastal San Luis Resource Conservation District, Sustainable Conservation, June 7, 2002).
- 4. CD-051-98, Natural Resources Conservation Service, Elkhorn Slough Watershed.
- 5. CD-096-01, Natural Resources Conservation Service, Salinas River Watershed.

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creek, Chorro Creek and their lesser tributaries, Los Osos Creek and its lesser tributaries, warden Creek and its lesser tributaries, Eto Lake and its tributaries, Warden Lake and its tributaries, and the lesser tributaries to Morro Bay.

EXISTING LAND USE

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The primary land uses in the Morro Bay watershed are urban, public multi-use, and agriculture (row crops, orchards and rangeland). Agriculture is a significant land use in the watershed. Sixty percent of the watershed is grass rangeland, primarily used for cow/calf operations. Grain and garbanzo beans are produced on non-irrigated croplands and snow peas and other vegetables are grown in irrigated cropland settings.

Public lands in the watershed include those with limited access, the California Men's Colony and Camp San Luis Obispo; those with specific public use such as Cuesta College; and several multi-use public properties that include Morro Dunes Natural Preserve, Montana De Oro State Park, Morro Bay State Park and the Los Padres National Forest.

Urban lands in the watershed include both residential and commercial properties associated with the communities of Morro Bay, Los Osos, and Baywood Park.

HISTORICAL AND CULTURAL RESOURCES

Level to gently rolling areas near the coast or along watercourses are more likely to contain archaeological sites. However, because humans have occupied San Luis Obispo County for at least 9,000 years, dramatic changes in landforms may have occurred and archaeological sites may be found nearly anywhere in the watershed. There is a high possibility of Native American archaeological sites in the area.

III. CONSERVATION PRACTICES PROPOSED FOR PERMIT COORDINATION'

The following sixteen conservation practices are proposed for inclusion under this program and will be recommended to landowners for potential implementation in the Morro Bay Watershed. These practices are selected from the NRCS' California Field Office Technical Guide (FOTG) and mirror the BMPs promoted by the EPA to help meet CWA mandates, the BMPs included in Management Measures promoted by the California Coastal Commission and the State Water Resources Control Board in the *Plan for California's Nonpoint Source Pollution Control Program*, and the Management Measures promoted in the MBNEP's CCMP.

Clearing and Snagging (326)	Removing snags, drifts, or other obstructions from a channel.
	This practice is used to prevent bank erosion by eddies and to increase the flow capacity of a channel by improving its flow characteristics. Special attention is given to restoring or improving landscape resources and habitat for fish and wildlife.
Critical Area Planting (342)	Planting vegetation such as trees, shrubs, vines, grasses, or legumes, on highly erodable or critically eroding areas (does not include tree planting mainly for wood products).
•	This practice is used to stabilize the soil, reduce damage from sediment and runoff to downstream areas, and improve wildlife habitat and visual resources. Plants may take up more of the nutrients in the soil, reducing the amount that can be washed into surface waters or leached into ground water. During grading, seedbed preparation, seeding, and mulching, quantities of sediment and associated chemicals may be washed into surface waters prior to plant establishment.
Diversion (362)	An earth channel constructed across the slope with a supporting ridge on the lower side.

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	This practice assists in the stabilization of a hillside by reducing the length of slope and thereby resulting in the reduction of sheet and rill erosion. Sediment may also be reduced by the elimination of gullies. This may reduce the amount of sediment and related pollutants delivered to the surface waters.
Filter Strip (393)	A strip or area of vegetation for removing sediment, organic matter, and other pollutants from runoff and wastewater.
•	This practice is used on cropland at the lower edges of fields adjacent to streams, ponds, and lakes to remove sediment and other pollutants from runoff. Installation often requires soil manipulation to remove surface irregularities and prepare for planting. When the field borders are located such that runoff flows across them in sheet flow, coarser grained sediments are filtered and deposited. Pesticides and nutrients may be removed from runoff through infiltration, absorption, adsorption, decomposition, and volatilization thereby protecting water quality downstream. However, they may not filter out some soluble or suspended fine-grained materials, especially during heavy rain events. Filter strips may also reduce erosion on the area on which they are constructed.
Fish Stream Improvement (395)	Improving a stream channel to create new fish habitat or to enhance an existing habitat. For the purpose of this program, this practice is further defined as Digger Logs, Single and Opposing Boulder Wing Deflectors and Root Wad as described in the California Salmonid Stream Habitat Restoration Manual.
	This 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. Increased shading from shrub and tree plantings may decrease water temperature during the warm season. Pools and riffles are formed in degraded stream sections through the strategic placement of root wads or natural rock that reduces the flow velocity through the area, reducing the quantity of sediment delivered downstream. The dissolved oxygen content may be increased, improving the stream's assimilative capacity.
Grade Stabilization Structure (410)	A structure built into the creek bed, channel bottom, or gully to control the grade and prevent head cutting in natural or artificial channels.
	This practice refers to rock, concrete, or timber structures that do <u>not</u> control the rate of flow or water level in channels. Stream velocities will be reduced above and below the structure resulting in reduced stream bank and streambed erosion. This will decrease the yield of sediment and sediment attached substances. Structures that trap sediment will improve downstream water quality.
Grassed Waterway (412)	A natural or constructed channel that is shaped or graded to required dimensions and velocities, and established with suitable vegetation for the stable conveyance of runoff.
	This practice may reduce the erosion in a concentrated flow area, such as a gully. This may result in the reduction of sediment and substances delivered to receiving waters. Vegetation may act as a filter in removing some of the sediment delivered to the waterway, although this is not the primary function of a grassed waterway. Grassed waterways may be used to move runoff from agricultural lands into riparian or wetland areas. Grading and seedbed preparation may result in some short term soil loss prior to establishment of vegetative cover

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Pipeline (516)	Pipeline installed for conveying water for livestock or for recreation.
	Conveying water from the source of supply to points of use to shift livestock to constructed water sources and away from stream and lakes. This practice is designed to reduce bank erosion, sediment yield, and manure in watercourses. Occasionally, a pipeline may cross streams or watercourses.
Sediment Basin (350)	Basins constructed to collect and store debris or sediment. Sediment basins will not be constructed in stream channels.
•	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. The practice does not treat the source of sediment but provides a barrier to reduce degradation of surface water downstream. Due to the detention of runoff in the basin, there is an increased opportunity for soluble materials to be leached toward the ground water. Basins may also increase groundwater recharge. The design of spillways and outlet works will include water control structures to prevent scouring at discharge point into natural drainage.
Streambank Protection (580)	Using vegetation or structures to stabilize and protect banks of streams, lakes, estuaries, or excavated channels against scour and erosion. Rock or rock rip-rap shall only be used as needed based on hydrologic analysis and minimized to the extent practicable to the toe of the bank.
	The banks of streams and water bodies are protected to reduce sediment loads causing downstream damage and pollution, to improve fish and wildlife habitat, and to protect adjacent land from erosion damage. This practice can be applied to natural or excavated channels where the streambanks are susceptible to erosion from the action of water or debris or to damage from livestock or vehicular traffic. The streambed grade must be controlled before most permanent types of bank protection can be considered feasible.
Stream Channel Stabilization	Stabilizing the channel of a stream with suitable structures.
(584)	This practice applies to stream channels undergoing damaging aggradation or degradation that cannot be controlled with upstream practices. The design and installation of structures (e.g. rock deflectors) will result in a stable streambed favorable to wildlife and riparian growth. May include the removal of accumulated sand or sediment.
Stream Corridor Improvement (204)	Restoration of a modified or damaged stream to a more natural state using bioengineering techniques.
	This practice uses a geomorphic approach for stream corridor stability and focuses on protecting banks and restoring or establishing riparian vegetation to improve water quality, wildlife and fish habitat and the visual quality of the stream corridor.
Tank or Trough (614)	A trough or tank installed to provide drinking water for livestock.
	This practice provides watering facilitates at selected locations that protect vegetative cover through proper distribution of grazing through better grassland management for erosion control. Another purpose is to reduce or eliminate the need for livestock to be in streams, which improves water quality by reducing animal waste in the stream.

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Underground Outlet (620)	A conduit installed 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.
Water and Sediment Control Basin (638)	An earthen embankment or a combination ridge and channel generally constructed across the slope and minor watercourses to form a sediment trap and water detention basin. Basins will not be constructed in stream channels.
	This practice traps and removes sediment and sediment-attached substances from runoff. Trap control efficiencies for sediment and total phosphorous that are transported by runoff may exceed 90 percent for silt loam soils. Salts, soluble nutrients, and soluble pesticides will be collected with the runoff and will not be released to surface waters. Although some ground water recharge may occur, little if any pollution hazard is expected. Often located alongside riparian or wetland environments to buffer impact of upslope runoff and sediment prior to release to natural drainage. Basins can be used to reduce concentrated off-site flow and associated erosion by metering out runoff following large storm events.

IV. THE NRCS PLANNING PROCESS

THE NRCS MANDATE AND APPROACH TO CONSERVATION

The NRCS provides technical assistance and cost sharing programs to cooperators to develop conservation systems uniquely suited to their land and individual way of doing business. NRCS, formerly the Soil Conservation Service, 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 set conservation priority goals, work with people on the land, and provide technical and cost sharing assistance. The NRCS works with RCDs to address and remedy land use problems at the source – working towards long term solutions rather than short-term fixes.

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NRCS employees have technical expertise and field experience to help land users solve their natural resources challenges and maintain and improve their economic viability. Employees bring a variety of scientific and technical skills to bear on resource planning including soil science, agronomy, biology, agroecology, range conservation, engineering, economics, and cultural anthropology. The technical support provided by the NRCS to agricultural operators is based on conservation systems designed to sustain and improve soil and water quality by addressing erosion control, pesticide and nutrient management, flood control, and streambank stabilization. They use a watershed approach to conservation that utilizes ecological principles and resource science to evaluate and manage the aggregate effect of multiple individual land uses. The biotechnical enhancement of natural systems is achieved through installation of conservation practices.

In San Luis Obispo County, the NRCS operates out of a Service Center in Templeton as well as local Field Office in Morro Bay. The agency is available to provide resource information and technical assistance including:

- 1. Soil resource data for the County through the Soil Survey;
- Conservation systems to sustain and improve soil and water quality by addressing erosion control, pesticide and nutrient management, irrigation water management, wetlands conservation and restoration, wildlife habitat improvement, flood control, and streambank stabilization;

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GENERAL PROTECTION MEASURES

Training and Education of Staff, Client, and Contractor

Prior to the onset of activities that may result in the disturbance of habitat or individuals of any listed species, all project workers including NRCS and CSLRCD staff and growers, shall be given information and training on the existence and identification of listed species in the project area, a brief overview of the species' natural history, the protection afforded the species by the Act, and the specific protective measures to be followed during implementation of the practices under the Morro Bay PIR program. Videos, brochures, books, and briefings may be used in the educational program, provided qualified NRCS staff are on hand to answer questions.

NRCS and CSLRCD training in the Templeton field office shall clearly stipulate the special conditions of this consultation and the level of attention that NRCS project staff is required to expend on design and monitoring duties for projects that may affect listed species and/or cultural resources. An integral part of the training will be *Procedures for Complying with Multiple Permits: A Guide for Conservation Planners.* This Guide is designed specifically for NRCS and RCD staff to implement the permit coordination program for the Morro Bay watershed and clearly identifies the project design process, conditions for implementing practices, and the monitoring and reporting requirements of the regulatory permits and agreements issued as part of this program.

Temporal Limitations on Construction

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, dispersal and sheltering of these species shall be performed only between June 1st and October 15. If the work site is in or adjacent to a stream that supports a steelhead fishery, work may not begin before July 1. Bird nesting sites shall be avoided during the nesting season – March 1 through July 31. Work beyond October 15 may be authorized following consultation with DFG, FWS, and/or NMFS and provided the work would be completed prior to first/winter rains and stream flows.

Limitations on Project Size

Conservation Practice	Maximum length (Feet)	Maximum Dimensions (Acres)	Maximum volume (Cubic yards)
Clearing and Snagging (326)	2,000	0.25	N/A
Critical Area Plantings (342)	2,000	1	500

Table 6: Grading Dimensions and Volume Associated with Implementation of the Practices*.

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Diversion (362)	2,000	2	2,000
(on field upland application only)			
Filter Strip (393)	500	0.5	500
Fish Stream Improvement (395)	20 structures in 2000 feet	N/A	15 (per structure)
Grade Stabilization Structure (410)	10 structures in 200 feet	N/A	10 (per structure)
Grassed Waterway (412)	2,000	2	2,000
Pipeline (516)	50 (across a stream or gully)	0.25	5
Sediment Basin (350)	N/A	· 1	1,500 (compacted embankment)
Stream Channel Stabilization (584)	2,000	2	3,000
Stream Corridor Improvement (204)	2,750	2	3,000
Streambank Protection (580) (mechanical)	1,000	1 .	2,500
Streambank Protection (580) (vegetative)	2,000	5	500
Tank or Trough (614)	N/A	0.1	200
Underground Outlets (620) (energy dissipater at outlet)	N/A	0.1	1,000
Water and Sediment Control Basin (638)	N/A .	0.25	1,500 (compacted embankment)
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* Projects done in U.S. Army Corps of Engineers jurisdiction under Nationwide Permits may not exceed .5 acres.

Limitations on Grading

Work will only occur in a dry or non-flowing channel unless specific conditions are met as further described under Limitations on Work in Streams and Permanently Ponded Areas, Limitations on Construction Equipment, and Environmental Protection Measures and Conditions for Specific Conservation Practices as follows in this document.

Disturbance to existing grades and vegetation will be limited to the actual site of the conservation project and necessary access route. Placement of all roads, staging areas, and other facilities shall avoid and limit disturbance to habitat as much as possible. No more than .10 acres of native shrubs, woody perennials or trees may be removed from the streambank or stream channel. There shall be no removal of native trees six inches or greater dbh.

Implementation of practices shall not result in sediment deposition in downstream areas. Excavated material not used in the implementation of the practice will be removed and deposited on the agricultural portions of the property.

Upon completion of grading, slope protection of all disturbed sites will be provided prior to November 1 through a combination of permanent vegetative treatment, mulching, geotextiles, and/or rock. Only native plant species or non-invasive, non-persistent annual grass species will be used.

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Finished grades will not exceed 2:1 side slopes.

Limitations on Construction Equipment

The NRCS and CSLRCD shall 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). Fueling and maintenance of vehicles and other equipment shall occur at least 100 feet from any aquatic habitat including a pond, stream, creek, or water body, and riparian habitat. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur, including keeping absorbent pads and visqueen on site in case of spilling during refueling.

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, NRCS/CSLRCD 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, only a rubber tire loader/backhoe may be used and 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 on banks and in the channel outside the scope of the project shall not be disturbed.

Revegetation and Removal of Exotic Plants

General Conditions: A revegetation plan describing the intended purpose of the project, the pre-project conditions, general diversity and make-up of vegetation, proposed revegetation mix of species and diversity, and the success criteria shall be prepared for each project. These revegetation plans shall be consistent with existing watershed planning efforts (e.g. MBNEP's Comprehensive Conservation and Management Plan).

The project area shall be restored to pre-construction condition or better. Revegetation shall result in self-sustaining coverage, density, and native plant diversity equivalent to either pre-construction conditions or that matching the natural density of the immediate upstream and/or downstream vegetation. Only native plants characteristic of the local habitat type and appearing in Appendix F shall be used when implementing and maintaining the practices in natural areas.

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 November 30th of the project year.

Barley grass (*Hordeum vulgare*), a non-invasive, non-persistent, exotic annual grass species, may not be used in stream channels or on streambanks, except after October 1 <u>and</u> when temperatures are too low to support rapid seed germination by natives. In those cases, barley grass seed may be added to a native seed mix in ratios not to exceed 58% by weight, in order to provide for appropriate erosion control for projects. Areas treated with barley grass must be mowed the following spring, before seed set, to allow the native plants to establish. The NRCS/CSLRCD shall monitor these sites for two years and ensure that barley grass does not out-compete the native plants or invade surrounding areas.

The pre-construction condition of the site shall be used as a guide and model for determining revegetation plant diversity and densities. The NRCS/CSLRCD shall do a pre-construction inventory of plant type, diversity and coverage to guide the revegetation plan.

Additional revegetation measures for degraded sites that lack vegetation or where vegetation will not be disturbed: If the pre-construction condition is degraded, denuded of vegetation, or inhabited primarily by invasive and exotic plants the areas immediately upstream and downstream of the site shall be used as the model for determining the native plant diversity, mix and density. Only plants from Appendix F will be used. On-going control of exotics encroaching from adjacent areas will not be required as long as the site's plant diversity is representative of the area immediately upstream and downstream.

Additional revegetation measures for sites where vegetation will be disturbed: If existing native vegetation is destroyed or disturbed as a result of the project, the site shall be revegetated with species representative of the

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original mix, density and coverage. Native trees and shrubs removed shall be replaced with the same species (or local subspecies if appropriate). The success rate at the end of five years shall ensure at least a 1:1 survival ratio of replacements plants to those destroyed. The diversity of species at the end of five-years shall be representative of adjacent areas.

Additional revegetation measures for projects using rock, grouted rock, or similar materials: Interstitial spaces and exposed soil above rock or concrete resulting from the project's construction activities shall be revegetated with appropriate plants from Appendix F using live planting, seed casting or hydroseeding prior to November 30 of the project year. Use of grouted rock shall be confined to construction of energy dissipators associated with outlets and outfalls.

Revegetation plans for these projects shall call for at least two continuous years of self-sustaining performance and an 80% survival rate of natives at the end of five years. Exotic, invasive plants shall be controlled on-site for a five years.

Control of Exotics: 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, and post-project monitoring and control of exotic species. Removal of exotics shall be done in preparation for establishment of plantings. To the extent possible, revegetation should be implemented at the same time removal of exotic vegetation occurs. Removal of invasive exotic species shall be strongly recommended for all projects.

Monitoring and success of revegetation plan: As part of their annual monitoring, the NRCS/CSLRCD shall perform at least one site visit to each project to assess the success of the revegetation plans. This assessment shall include visual inspections, a brief narrative, color photographs, estimates of ground cover, native plant survival rate and diversity, and suggestions for any necessary remediation. These assessments shall be conducted the year of project implementation and for four years following. This revegetation assessment shall be included in the Morro Bay PIR Annual Report provided to the regulatory agencies each January.

If the revegetation assessment identifies areas that are not meeting the success criteria called for in the revegetation plan, the NRCS/CSLRCD will work with the landowner to remedy the situation through replanting, control of exotics, improved maintenance or other appropriate measures.

Revegetation shall result in self-sustaining coverage, density, and native plant diversity equivalent to either preconstruction conditions or that matching the natural density and diversity of the immediate upstream and/or downstream vegetation. Minimum success criteria for revegetation shall be:

- Trees: 80% survival at the end of 5 years with 30% 60% coverage/canopy by at least 67% of the species planted as appropriate for site conditions and species characteristics.
- Shrubs: 80% survival at the end of 5 years with 30% 60% coverage/canopy by at least 67% of the species planted as appropriate for site conditions and species characteristics.
- Grasses: 60 80% coverage at the end of five years.

Conditions for Erosion Control

Nearly all of the conservation practices included under the PIR 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.

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 during construction activities, and after if necessary, for the purposes of minimizing fine sediment and sediment/water slurry input to flowing water, and of detaining sediment laden water 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 highwater mark. These devices will be inspected at least once a day to ensure they are functioning properly.

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The workspace will be isolated from flowing water to prevent sedimentation and turbidity. Prior to construction activities, sandbag cofferdams, straw bales, silt fences, culverts or visqueen (diversions) shall be installed to divert stream flow away from or around workspace. These diversions shall remain in place during the project and will be removed immediately after work is complete.

If a project requires dewatering any area, 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. The pump intake shall be fitted with a fish and aquatic species exclusion device.

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 rock riprap, and interstitial spaces between rocks shall be revegetated by live planting, seed casting, or hydroseeding prior to November 30 of the project year.

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.

Limitations on Work in Streams and Permanently Ponded Areas

If it is necessary to conduct work in a live stream, the work space shall be isolated to avoid construction activities in flowing water. If it is deemed necessary to work in a flowing stream/creek, the workspace will be isolated from flowing water to prevent sedimentation and turbidity. Prior to construction activities, sandbag cofferdams, straw bales, silt fences, culverts or visqueen (diversions) shall be installed to divert stream flow away from or around workspace at an appropriate rate to maintain downstream flows during construction. Excavating a channel for the purpose of isolating the workspace from flowing water is prohibited. Adequate water depth and channel width must be maintained at all times to allow for fish passage. When construction is completed, the barriers to flow shall be removed in a manner that will allow flow to resume with the least disturbance to the substrate.

When implementing or maintaining a critical area planting above the high water line a filter fabric fence, fiber rolls and/or hay bales shall be utilized, if needed, to keep sediment from flowing into the adjacent water body. At the time 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 NRCS/RCD shall occur until the critical area planting is established to control erosion.

Use of heavy equipment shall be avoided in a channel bottom with rocky or cobbled substrate. If access to the work site requires crossing a rocky or cobbled substrate, only a rubber tire loader/backhoe may be used and the amount of time this equipment is stationed, working, or traveling within the creek bed shall be minimized. If the substrate of a seasonal pond, creek, stream or water body is altered during work activities, it shall be returned to approximate preconstruction conditions after the work is completed, unless the NRCS and NMFS or DFG determine that other measures should be implemented.

The implementation and maintenance of projects shall not result in sediment covering a clean bottom. A "clean" bottom is characterized by cobbles, gravel and small stones (1 to 6 inches in size).

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.

Construction or maintenance activities of Sediment Basin, Underground Outlet, Diversion and Grassed Waterway shall not result in increases in turbidity in the stream (as measured by NTU) of more than 10 percent of upstream background.

Limitations on use of Herbicides, Pesticides and Fertilizers

Except as noted below, no herbicides, pesticides or fertilizers shall be used in the stream area to hasten or improve the growth of critical area plantings.

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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 chemical fertilizers will be based on soil nutrient testing and shall utilize slow release or split applications to minimize leaching or runoff into water bodies. Fertilizers may only be used on stream banks above the normal high water mark the year of planting if necessary.

Hand labor shall be used to control exotic vegetation at the site. Herbicides may be applied to control established stands of non-native species including Cape Ivy (Senecio mikaniodides), Castor Bean (Ricinus communis), and Giant Reed (Arundo donax). 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.

ENVIRONMENTAL PROTECTION MEASURES AND CONDITIONS FOR SPECIFIC CONSERVATION PRACTICES

Clearing and Snagging.

Only hand labor shall be used when removing trees or brush in the stream channel or on the stream bank,

Fallen trees shall be removed only if they create a hazard due to deflection of flow into erosion prone banks. If such a tree is 6 inches or greater dbh and is situated in a stream sections that support Salmonid habitat, it shall be moved and/or used on site so that the hazard is abated and the tree continues to provide habitat for fish and other aquatic species.

There shall be no cutting or removal of live native trees six inches or greater dbh.

Critical Area Planting

When implementing or maintaining a critical area planting above the high water line, a filter fabric fence, fiber rolls and/or hay bales shall be utilized, if needed, to keep sediment from flowing into the adjacent water body. At the time 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 NRCS/CSLRCD shall occur until the critical area planting is established to control erosion.

Except as noted below, no pesticides or fertilizers shall be used in the stream area to hasten or improve the growth of critical area plantings. Herbicides may be applied to control established stands of non-native species including Cape Ivy (Senecio mikaniodides), Castor Bean (Ricinus communis), and Giant Reed (Arundo donax). Herbicides must be applied according to the registered label conditions. Herbicides must be applied directly to plants and may not be spread upon any water. Fertilizers may only be used above the normal high water mark the year of planting.

Stream water will only be used to irrigate plantings when existing water supplies are unavailable, importing water is unfeasible, and streams have a flow greater than 1 cfs. Stream water only be used in the initial planting year, may be taken from streams only with buckets or using a pump with less than 10 gpm capacity and appropriate screen on the inlet. Water withdrawn for this purpose shall not exceed 10% of stream flow and shall not occur for more than three hours per week.

Fish Stream Improvement and Stream Corridor Improvement.

The NRCS and CSLRCD will consult with DFG personnel when designing these practices. Visits to project sites incorporating these practices will be included in the annual meeting described in Section III of the MOU between the NRCS, CSLRCD and DFG that covers this program.

The Fish Stream Improvement conservation practice (further defined as Digger Logs, Single and Opposing Boulder Wing Deflectors and Root Wad as defined in the following publication) will be designed and implemented in accordance with the California Department of Fish and Game's *California Salmonid Stream Habitat Restoration Manual*.

If it is deemed necessary to work in a flowing stream/creek, the site shall be isolated or dewatered and the water above the barrier shall be diverted downstream at an appropriate rate to maintain downstream flows during construction. Adequate water depth and channel width must be maintained at all times to allow for fish passage.

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When construction is completed, the barriers to flow shall be removed in a manner that will allow flow to resume with the least disturbance to the substrate.

Sediment removal from the stream channel may occur if it will improve the stream's biological functioning and restore channel capacity. Sediment removal may be done only in dry channels.

No creosote treated timbers shall be used for grade or channel stabilization structures, bulkheads or other instream structures.

Grade Stabilization Structure and Stream Channel Stabilization

Construction and maintenance of Grade Stabilization Structures in streams or creeks that support a Salmonid fishery are not covered under this program. Projects seeking to implement conservation practices in those circumstances must seek individual permits from appropriate public agencies.

If it is deemed necessary to work in a flowing stream/creek, the site shall be isolated or dewatered and the water above the barrier shall be diverted downstream at an appropriate rate to maintain downstream flows during construction. Adequate water depth and channel width must be maintained at all times to allow for fish passage. When construction is completed, the barriers to flow shall be removed in a manner that will allow flow to resume with the least disturbance to the substrate.

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 may not occur in a flowing stream or standing water.

No creosote treated timbers shall be used for grade or channel stabilization structures, bulkheads or other instream structures.

<u>Pipeline</u>

Pipeline shall be installed and maintained only in dry streambeds with a maximum vertical bank height of three feet. Trenching associated with this practice must be a minimum of three feet deep.

Sediment Basin and Sediment and Water Control Basin

Bird nesting sites shall be avoided during the breeding season, March 1 through July 31. Where water and sediment control basins create marshy conditions and attract nesting birds and other wildlife, maintenance may occur only from August 1 to October 15.

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.

Construction or maintenance activities of sediment basins shall not result in increases in turbidity in the stream (as measured by NTU) of more than 10 percent of upstream background.

Streambank Protection

In the event that rock or rock rip-rap is necessary to stabilize a bank, it shall only be used between the toe and the top of the normal high flow and it shall be keyed in. Projects that require armoring or hard structure for the entire bank from top to bottom may be ineligible for this program.

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