

**ANNUAL ROUTINE
MAINTENANCE PLAN**

FISCAL YEAR 2003-2004



Prepared by

**The Santa Barbara County Flood Control and Water
Conservation District**



County of Santa Barbara BOARD OF SUPERVISORS

Minute Order

June 24, 2003

Present: Supervisor Schwartz, Supervisor Rose, Supervisor Marshall, Supervisor Gray and Supervisor Centeno

BOARD OF DIRECTORS, FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

File Reference No. 03-00423

RE: HEARING - Consider recommendations regarding the Annual Maintenance Plan, All Districts, as follows: (EST. TIME: 30 MIN.)

- a) Approve the individual CEQA exempt projects and direct the Clerk of the Board to file the attached CEQA Notice of Exemption for each of the projects described in Section 1 of the Fiscal Year 2003/04 Annual Maintenance Plan (POST);
- b) Certify that the addenda to Program EIR (01-EIR-01) contained within Section 2 of the Fiscal Year 2003/04 Annual Maintenance Plan have been completed in compliance with the California Environmental Quality Act (CEQA);
- c) Certify that the Board has reviewed and considered the information contained in the Final Program EIR and individual addenda contained within the Fiscal Year 2003/04 Annual Maintenance Plan as well as information presented during the public hearing prior to the approval of the individual projects presented in Section 2 of the Fiscal Year 2003/04 Annual Plan;
- d) Adopt CEQA Findings and Statement of Overriding Considerations included in Section 4 of the Fiscal Year 2003/04 Annual Maintenance Plan;
- e) Adopt the Mitigation and Monitoring Programs attached to the addenda for individual projects described in Section 2 of the Fiscal Year 2003/04 Annual Maintenance Plan;
- f) Approve individual projects described in Section 2 of the Fiscal Year 2003/04 Annual Plan.

COUNTY ADMINISTRATOR'S RECOMMENDATION: POLICY

June 24, 2003

Present: Supervisor Schwartz, Supervisor Rose, Supervisor Marshall, Supervisor Gray and Supervisor Centeno

A motion was made by Supervisor Rose, seconded by Supervisor Centeno, that this matter be Acted on as follows:

- a) **Approved.**
- b) **Certified.**
- c) **Certified.**
- d) **Adopted.**
- e) **Adopted.**
- f) **Approved.**

The motion carried unanimously.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT ANNUAL MAINTENANCE PLAN

ORIGIN OF THE PROGRAM

The Maintenance Program was developed after many years of environmental study and coordination with the public, environmental groups, and permitting agencies. In 1987, the Board directed the District staff to prepare a Program EIR on routine maintenance activities to: *"... provide a systematic approach to reviewing future flood control activities...offer feasible mitigation and/or alternative maintenance techniques which provide adequate protection against flood damage in the least environmentally damaging way."* In February 1988, a Notice of Preparation was issued for the Program EIR. In May 1990, a draft Program EIR was issued for public review. A final Program EIR was issued in March 1991, which identified numerous significant environmental impacts and identified an Environmentally Superior Alternative. The latter consisted of numerous mitigation measures (called Standard Maintenance Practices) to avoid or reduce specific impacts to botanical resources, wildlife, water quality, stream geomorphology, cultural resources, and aesthetics.

In June 1991, the Board convened an Interagency and Public Advisory Committee (IPAC) to work with the District to develop a revised Maintenance Program, based on the EIR's Environmentally Superior Alternative. The IPAC met on seven occasions and developed, through a consensus process, a revised list of Standard Maintenance Practices (SMPs) and an annual planning and project approval process. Together, these products represented the revised Environmentally Superior Alternative that was recommended to the Board. The project was ultimately approved in March 1992 when an Addendum to the 1991 Program EIR was completed.

NEED FOR AN UPDATED MAINTENANCE PROGRAM

The Maintenance Program initiated in 1992 under the 1991 Final Program EIR has been successfully implemented for nine years. The District's program is based on careful planning to ensure that only necessary maintenance is conducted, field practices minimize environmental impacts, and environmental mitigation and restoration are included. The program is considered one of the most environmentally sensitive programs in California amongst flood control agencies.

The District has determined that the Maintenance Program needs to be updated, and as such, a new CEQA analysis will be required to address any modifications to the program. The primary reasons for updating the Maintenance Program are described below.

- **Include new information about threatened and endangered species.** Since the initiation of the Maintenance Program in 1992, several species that reside in the County have been designated as endangered or threatened by the federal government, including the tidewater goby, western snowy plover, California red-legged frog, southern steelhead trout, southwestern arroyo toad, and California tiger salamander. The District wishes to include specific environmental protection measures for these species in the Maintenance Program to avoid future conflicts. The tidewater goby, snowy plover, and steelhead were not addressed in the 1991 Final Program EIR. Impacts to the other listed species were addressed in a cursory manner.
- **Address water quality impacts in a more sophisticated manner.** In the past several years, there has been an increased awareness of human-induced pollution in the South Coast watersheds, as exhibited by high coliform levels at local beaches. In addition, there is a greater recognition of the effects of wetlands and riparian corridors in reducing pollutant loading through natural processes. The 1991 Final Program EIR only addressed water quality impacts related to sediments and herbicides, and did not address impacts to “biofiltering” effects of in-stream vegetation due to maintenance activities.
- **Consider new analytic tools for assessing channel capacity and geomorphology.** In the past 10 years, there has been a growing interest in the field of fluvial geomorphology – the science of the interaction between watershed characteristics, flows, and channel geometry. Geomorphological concepts are being applied to river and creek restoration projects with greater frequency, particularly the concept of the “bankful capacity” and sediment transport equilibrium. The previous Program EIR did not conduct a rigorous analysis of the applicability of these concepts to the maintenance program. The District is interested in determining if such concepts and associated analytic tools will increase the efficiency and effectiveness of the maintenance planning and implementation program.
- **Include the Lower Santa Ynez River maintenance into the annual program.** The District is interested in including the maintenance activities along the Lower Santa Ynez River into the Maintenance Program for the sake of efficiency and consistency.
- **Improve the standard maintenance practices.** The current Maintenance Program includes 77 Standard Maintenance Practices (SMPs) that were developed based on the 1991 Final Program EIR and input from the Interagency and Public Advisory Committee (IPAC). While these practices have proven to be very effective in minimizing and mitigating environmental impacts, there is an interest in modifying the practices to consolidate many individual practices, reword the description of certain practices, and re-organize them in order to increase the efficiency when referencing the practices in annual maintenance plans, and to reduce ambiguity in certain measures. In addition, the effectiveness of the habitat restoration measures will be assessed in the updated Program EIR,

including an evaluation of the use of the function-based methods for assessing riparian habitat impacts and determining mitigation.

- **Improve the format and organization of the Program EIR.** The District would like to re-organize the Program EIR to be consistent with the resource names or descriptors used by other County departments in order to establish consistency with CEQA documents and findings by other County departments. The 1991 Final Program EIR utilized a unique organization and resource terms or titles that has not proven effective when conducting subsequent environmental review under the Program EIR, or when using it for other permits.
- **Include a variety of bank and grade stabilization measures in the program.** In the past 5 to 10 years, there has been a tremendous increase in the development and application of environmentally sensitive slope stabilization methods. “Bio-technical” methods emphasize the use of plants and biodegradable materials rather than concrete and rip-rip. Routine maintenance may require limited slope stabilization. The District is interested in the feasibility and applicability of such methods within the context of the Maintenance Program.
- **Assess the Impacts of the Los Carneros Mitigation Bank.** The District recently proposed a 28-acre riparian and wetland mitigation bank at Lake Los Carneros, a County park in Goleta. Credits accrued from restoring habitats at the site will be used for mitigation for maintenance activities, and possibly for future District capital projects.

OBJECTIVES

The objectives of the routine maintenance program are to maintain the capacity of key watercourses in the County to preserve existing conveyance capacity and prevent the accumulation of obstructing vegetation and sediments that could increase existing flood hazards that could then result in damage to life, and public property and infrastructure. The extent and frequency of maintenance are dependent upon many factors including the availability of funds from individual flood zones, the degree of flood hazard, and the environmental impacts of the maintenance actions. Maintenance practices are used that minimize environmental impacts to natural habitats, water quality, sensitive species, and natural fluvial processes.

ANNUAL PLANNING AND APPROVAL PROCESS

The Maintenance Program includes a specific annual planning and approval process. The sequence of events in this process is summarized below, and shown on Chart 1.

Step 1: Conduct Surveys and Develop Maintenance Projects

Each year, the District environmental and maintenance staff conducts joint surveys of all maintained drainages in the County during April. These are labor intensive and demanding field investigations to identify areas that require maintenance. Data are

gathered on site conditions along the reaches that need maintenance. An assessment of the need for maintenance is prepared using principles of engineering and stream geomorphology. The nature and extent of the proposed maintenance activities are described. Biological field surveys are conducted by the District Biologist to determine the presence of any sensitive species. Impacts of the proposed actions are evaluated and mitigation measures are identified. Impacts are listed for each resource area using the impact summary table from the 2001 Updated Final Program EIR. Mitigation measures are included for each impact. A map of the proposed maintenance work area is developed, as well as documentation of any biological field investigations. Photographs of the maintenance work area are usually acquired.

Step 2: Develop Annual Plan

An Annual Routine Maintenance Plan (Annual Plan) is prepared by the District staff in May or June of each year which includes the following chapters:

- No sec. – Introduction and summary of planned maintenance work
- Section 1 – Notice of Exemption and description of exempt drainages
- Section 2 – Individual EIR Addenda for each drainage to be maintained, including detailed information on the site conditions, biological resources, proposed maintenance actions, impact assessment, and mitigation measures
- Section 3 – Reference to other environmental documents, as needed
- Section 4 – 2001 CEQA Findings and a list of the EIR Addenda in the Plan
- No sec. – District revegetation methods

Step 3: Public Review

A summary of the Annual Plan is issued for public review and public workshops to receive comments on the plan are conducted in the North County and South County. Letters of comment are received during a 15-day time period. Copies of the Annual Plan Summary are sent to local environmental groups and any individual or organization with an interest.

Step 4: CEQA Compliance

As noted above, the Annual Plan includes a description of each maintenance project to be conducted in the fall. In addition, it represents the environmental documentation under CEQA. The projects included in the Annual Plan are categorized as follows relative to CEQA:

- The project is exempt from CEQA and therefore no environmental review is necessary (CEQA Guidelines 15300 or 15061)
- No further environmental review is necessary because the project was adequately addressed in the Program EIR (CEQA Guidelines 15162).
- Considered under the 1991 Program EIR, but an Addendum is necessary to describe the project and ensure consistency with the Program EIR impact

analysis and to apply the appropriate mitigation measures (CEQA Guidelines 15164)

- Not considered under the 2001 Program EIR and therefore a new environmental review is necessary (e.g., subsequent, supplemental, or new Negative Declaration or EIR)

As a CEQA lead agency, the District has the authority to determine which maintenance activities and projects are exempt from CEQA under the following two provisions of the CEQA Guidelines:

1. Under Section 15061(b)(3), a project or discretionary activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.
2. The District may also determine that a project qualifies for CEQA Categorical Exemption Class 1 (CEQA Guidelines Section 15301, Existing Facilities):

“Class 1 consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. The types of "existing facilities" itemized below are not intended to be all-inclusive of the types of projects which might fall within Class 1. The key consideration is whether the project involves negligible or no expansion of an existing use. Examples include but are not limited to: ... (b) Existing facilities of both investor and publicly-owned utilities used to provide electric power, natural gas, sewerage, or other public utility services....”

There are exceptions to Categorical Exemptions, which are listed in Section 15300.2 of the CEQA Guidelines. For example, all exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant. In addition, a categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

Maintenance projects that are exempt from CEQA generally include the following categories of activities, as described by the District in the Annual Plans:

1. **Rubbish Removal.** Removal of rubbish or other unnatural material from the riparian corridor or estuary.
2. **Concrete Channels.** Maintenance activities in fully concrete lined channels without habitat.

3. **Flood Control Devices.** Cleaning, repair, and replacement of such flood control devices as check structures, drop structures, chute structures, culverts, weirs, or stream flow measuring stations.
4. **Access Ways.** Maintenance activities on access ways or roads outside of riparian corridors or estuaries.
5. **Earthen Channels.** Maintenance activities in earthen channels, which have been developed to convey urban stormwater, agricultural stormwater or tail water, and that support little to no vegetation.
6. **Unvegetated Basins.** Maintenance activities in sediment, debris, and retention basins which have been constructed for such purposes and which support little to no vegetation.

Non-exempt projects that were considered in the 1991 Program EIR are subject to environmental review in the Annual Plan. Addenda are prepared by District staff for each maintenance project, which include the following elements:

Location – A description of the maintenance site is presented.

Setting – A description is presented of the environmental conditions at the site, including topography, vegetation, stream channel dimensions, and adjacent land use. District staff conducts a field investigation and records information on site conditions, including vegetation.

Revegetation – This section includes a description of any existing and proposed District revegetation sites in proximity to the maintenance site

Wildlife Surveys – The results of wildlife surveys that are conducted in April or May at the maintenance site are summarized. The primary objective of these surveys is to identify any sensitive species at the maintenance site. This section of the Addendum also includes a summary of all wildlife observed at or near the site.

Engineering Analysis – A description of the site conditions that have caused the need for maintenance, including: (1) the nature and extent of channel obstructions or damaged facilities; (2) the flooding and erosion hazards created by these conditions; and (3) the remedy for this situation. The analysis usually is based on visual observations of adverse conditions such as sediment deposits, significant in-stream vegetation, or damaged facilities. The District personnel that conducts the Annual Plan surveys is the same each year; as such, they have first-hand knowledge of site conditions along drainages in the County over many years and under various conditions. Hence, they can readily assess the maintenance needs. The District does not typically conduct quantitative field measurements or hydrologic calculations or modeling to determine the maintenance needs.

Project Description - This section includes a description of the maintenance work to be performed, including descriptions of access. Precise descriptions of the areas to be treated (e.g., sprayed with herbicide or brushed) are provided using features in the field. Topographic or parcel maps are provided to show the limits of work and access points.

Impact Analysis and Mitigation Measures - The Addenda refer to the list of impacts associated with specific maintenance activities developed in the 2001 Program EIR. The latter identified numerous significant, unmitigable impacts (Class I) and significant, but mitigable to less than significant impacts (Class II). For maintenance projects proposed and implemented since 1992, the District has been able to avoid significant impacts by designing the projects or activities to avoid such impacts, and/or by implementing appropriate SMPs from the Program EIR to mitigate such impacts.

This section contains a list of impacts expected to occur due to the proposed maintenance activity using the impact number, impact description, and issue area presented in the 2001 Program EIR. These issue areas include the following: Water Resources (Hydrology); Water Quality; Wetlands, Riparian Habitats, and Rare Plants; Aquatic Species, Fish; and Wildlife; Air Quality; Noise; Cultural Resources; Recreation; and Visual Resources. Specific impacts are listed under each issue area.

In addition, mitigation measures derived from the Program EIR are listed under each issue area.

Step 5: Plan Approval

The Annual Plan is revised to respond to any public comments, then is presented to the Board of Directors for approval in June of each year. There is a public hearing to adopt the Annual Plan and the associated CEQA Addenda and Categorical Exemptions.

OTHER PERMITS

Local Land Use and Coastal Development Permits

Most of the maintenance activities occur in unincorporated portions of Santa Barbara County. The District is exempt from the land use permitting requirements of the County in areas outside the Coastal Zone. Section 35-201 of Article III Zoning Ordinance (Non-Coastal Areas) states that the Zoning Ordinance does not apply to "...development by the County of any district or agency of which the Board of Supervisors of the County is the governing body."

Some maintenance activities occur in the Coastal Zone in unincorporated portions of the County. Under Section 53-51(4) of the Article II Zoning Ordinance (Coastal Areas), the

District does not require a Coastal Development Permit for maintenance projects in the Coastal Zone, except when the project occurs in an Environmentally Sensitive Habitat (ESH) area. The latter is defined in the Coastal Act and Coastal Plan and generally includes rivers, streams, wetlands, riparian corridors, and sensitive species habitats. For most work in the Coastal Zone, the County has permit authority and issues a “blanket” Coastal Development Permit (CDP). However, there are certain areas along the coast where the California Coastal Commission (CCC) retains primary permit authority. Maintenance projects in ESH areas must be designed and implemented in a manner consistent with the development standards in Section 35-97 of the Article II Zoning Ordinance. Work in the Coastal Zone within the cities of Santa Barbara and Carpinteria requires a CDP from these jurisdictions.

State and Federal Permits

Most maintenance activities occur in natural watercourses and involve modification to the channel bed, banks, and in-channel vegetation. These activities are regulated by the Department of Fish and Game (CDFG) under Section 1601 of the Fish and Game Code. Activities that result in the discharge of dredged or fill material in natural watercourses (such as bank stabilization and channel shaping) are regulated by the Corps of Engineers under Section 404 of the Clean Water Act.

The Corps issued a 5-year long Regional General Permit in 1994 and in 1999 for the District’s maintenance program, excluding maintenance activities along the Santa Ynez River, Santa Maria River, lower Atascadero Creek, and San Antonio Creek (downstream of Highway 1). The permit only applies to projects that result in discharge of fill or dredged material. The permit requires that the District conduct pre-construction biological field surveys; notify the Corps each year of maintenance projects that involve disturbance of more than one acre to creeks without wetlands or disturbance of more than ½ acre to creeks with wetlands; restore native habitats on- or off-site to compensate for habitat impacts; conduct archeological field surveys prior to disturbing upland banks; provide annual reports on habitat restoration projects; and conduct a formal or informal Section 7 endangered species consultation with US Fish and Wildlife Service and/or National Marine Fisheries Service if federal endangered species could be affected by the proposed maintenance projects. The District submits the draft Annual Plan to the Corps each year to satisfy the notification requirement, and the Corps provides a written confirmation that the Annual Plan conforms to the Regional General Permit. The Corps has the discretion to disallow certain maintenance projects from the programmatic permit and require a separate permit, and to issue new special conditions for each Annual Plan.

The Central Coast Regional Water Quality Control Board has issued a Section 401 water quality certification for the Corps 404 permit, and the CCC is currently reviewing the Corps permit in order to issue a Coastal Zone Consistency Determination Concurrence for work performed under the Corps permit in the Coastal Zone.

The Corps also issued a Regional General Permit in 1997 for maintenance of the debris basins along the South Coast. The permit has similar requirements as the permit for the overall maintenance program.

In 1992, the CDFG and the District executed a Streambed Alteration Agreement pursuant to Fish and Game Code 1601 for the Maintenance Program. The agreement is programmatic in nature, and is annually renewed. The requirements of the Agreement are similar to the Corps permit listed above. However, the Agreement includes more specific environmental protection measures than the Corps permit, including 82 conditions. In 1997, the CDFG and District executed a 5-year programmatic Agreement for maintenance activities in the South Coast debris basins.

The Corps permits and CDFG Agreements contain environmental protection measures that are comparable to those contained in the SMPs and generally do not create conflicting requirements.

CARPINTERIA CREEK ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:

The project begins downstream of Casitas Pass Road and terminates in the vicinity of 6th Street.

Setting:

Carpinteria Creek originates in the foothills of the Santa Ynez Mountains and drains a 9680 acre watershed capable of producing 8900 cfs during a 100 year return period precipitation event. The creek was inspected by District staff on March 24, 2003 to determine the necessity and extent of any maintenance.

The portion of Carpinteria Creek proposed for maintenance flows through agriculture and low-density residential areas above Highway 101 and high-density residential areas below Highway 101. Upstream of Highway 101, the creek supports a relatively narrow yet well developed canopy of riparian vegetation with dense mature stands of arroyo and yellow willow. Stands of sycamore, Fremont cottonwood and black cottonwood are scattered along the top of the bank. Occasional coast live oaks are also scattered along the entire length of the creek. Woody riparian understory vines and shrubs include species such as poison oak, coyote bush, blackberry, mugwort and many non-native species as well. Small dryer areas along the top of the bank support shrubs typical of the coastal sage scrub habitat.

Large residential lots border the creek in the lower reaches of the creek and invasive non-native vegetation is more abundant than in the largely agricultural areas upstream. Much of the riparian canopy in the urban portion of the creek has been removed beyond the top of the bank for apartments, businesses and roads. Mature cottonwood, white alder and western sycamore trees occur in scattered patches along the lower portions of the project reach. In general, the understory component consists of species such as mugwort, mustard, nettle, monkey flower and ivy.

Revegetation:

Beginning with the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District began a new reporting and accounting program for the restoration component of the Annual Routine Maintenance Program.

Maintenance associated with the 2002/2003 Annual Plan resulted in a surplus of 2042 square feet of restoration. Maintenance in the 2003/2004 Annual Routine Maintenance Plan has identified 900 square feet of temporal impacts to native riparian vegetation. Subtracting this square footage from the 2042 square feet of surplus will leave the District with 1142 square feet of restoration that will be used to mitigate for future maintenance projects.

Wildlife Survey:

As described in the project description, proposed maintenance will require the use of equipment in the creek channel within Section 1. This maintenance has the potential to impact wildlife. A wildlife survey was conducted by the District Biologist on May 21, 2003 with particular emphasis on those sensitive species discussed in the Program EIR.

The site characteristics were unchanged from the original inspection and although the creek generally dries up during the summer months it is already dry early in the season. The proposed maintenance in these sections includes the removal of a summer crossing, installation of a bridge, construction of a rock weir as well as the reshaping of the streambed upstream of the summer crossing to reestablish a more stable stream profile once the summer crossing is removed. This project will incorporate both pools and riffles within the project reach which will actually increase the existing wildlife habitat.

Species observed during the survey included Anna's hummingbird, Yellow warbler, common yellowthroat, Red-tailed hawk, Northern mockingbird, Common Crow, song sparrow, house finch and brown towhee.

Impacts to the observed species as well as those discussed in the Program EIR are expected to be minimal and the proposed work in Section 1 will remove a fish impediment. Incorporation of the proposed mitigation measures will reduce any potential impacts to insignificant.

Engineering Analysis:

Vegetation tends to colonize the streambed during drought years when there is insufficient flow to scour the active channel. In an effort to reduce the potential for plugging downstream bridges, downed trees/limbs and obstructive vegetation that could be mobilized during high flows should be removed. The bankfull discharge* for Carpinteria Creek downstream of Casitas Pass Road is approximately 625 cfs. With a velocity of approximately 6 fps and a typical depth of 3', the width of clearing should be 35' to maintain channel equilibrium.

In addition, the District is assisting various agencies to modify impediments to steelhead. Detailed designs will be developed for each impediment. Impediment modification typically involves the installation of one or more boulder weirs to raise the tailwater elevation downstream of the impediment. If raising the tailwater elevation isn't sufficient to allow fish to pass, then the impediment is removed or modified to increase roughness or create pools so the fish can move through the impediment upstream. If a summer crossing is removed, it may be replaced with a bridge which will require a design by a bridge engineer.

* As defined in "Regional Curves for Bankful Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Maintenance consists primarily of removing obstructive vegetation from the streambed. A crew of four using chainsaws and loppers removes obstructive vegetation. The cut vegetation is either hauled out of the creek, cut up and left in place or chipped in place depending on the quantity and the location.

An herbicide application will target only the species of plants that trap sediment or obstruct flows and reduce conveyance. The minimum amount of spray will be used to achieve the desired level of control. Using this method of vegetation control minimizes the need to conduct maintenance by more disruptive methods such as heavy equipment use.

In addition, downed limbs and limbs projecting into the flow area will also be removed and or trimmed.

Section 1:

Community Environmental Council (CEC) has been awarded a grant to develop conceptual and final plans to remove or modify an existing summer crossing that is considered an impediment to steelhead and to restore certain sections of the streambank, especially along a reach located between 300 and 700 feet downstream from that crossing. Work in this section is being included to assist the CEC in the compliance with CEQA and permitting requirements. The District's role in the project is limited to assisting this agency by including the work in our annual planning process. The work will be constructed by, and will be the responsibility of the CEC.

Preliminary design concepts call for the removal of a shallow, concave 76-foot wide low-flow crossing that spans the stream channel, as well as removal of a 2-foot diameter metal pipe that runs under the structure. But other design options for replacing or modifying the crossing will also be examined. Because of scouring that has undercut the substrate support for the crossing, the structure is on the verge of failure and presents a hazard to vehicle passage and to downstream property during flood flows. Initial site analysis indicates that because of the constraints of the site---including the height of the roadway above the immediate downstream reach---other potential solutions (such as installing culverts beneath the existing roadway) would not provide a satisfactory solution for steelhead migration. And because the crossing provides the landowner's only available access to the other half of its property, it must be replaced with some structure if removed.

If the crossing is removed, it would be broken up in place and all concrete, rebar and metal pipe will be hauled off-site. The crossing overlays rocks and boulders that constitute the substrate of the creek in this vicinity. Upstream of the crossing, however, a large scour hole 2 feet deep by 3 feet wide has undercut the middle of the structure and washed away streambed material that the concrete was original poured on, producing a 15-foot wide by 17-foot long void and over 2-feet deep. Downstream scour has produced a 4 -foot drop from the downstream edge of the concrete structure to the deepest part of the streambed. The creek bed will be graded or filled with native cobble and rocks to match the existing gradient of the creek along the reach (estimated to be ± 2.5 percent) and to create pools and riffles consistent with the creek bed located upstream and downstream of the crossing.

A prefabricated bridge would then be installed to maintain access to the property in lieu of the summer crossing. Details of the bridge design are to be determined. The bridge will be adequate to bear the weight of farm equipment and will not encroach into the stream channel,

but it will require the construction of bridge abutments at both banks of the creek in the vicinity of the existing summer crossing. The extent of the abutments will generally match the areas on the banks where the summer crossing currently exists. The creek bed under the bridge will be comprised of natural substrate.

Beginning about 300 feet downstream of the crossing, severe bank scouring and downcutting have created 15-20 foot-high vertical, denuded streambanks along a quarter of the reach. Preliminary concept plans call for the use of soil bioengineering techniques in certain sections to stabilize the streambank with root wads or other plant material in order to protect against erosion and undercutting, reduce sedimentation, and protect against bank collapse during high-velocity flows. In other areas, the vertical banks will be graded back to a less severe angle or gradient. This grading and bank modification will involve removal soil, which will be disposed of and used elsewhere on site. It may also involve the removal and loss of as many as 20 mature avocado trees growing next to the streambank, many of which are now immediately threatened by streambank erosion. After regrading and installation of appropriate bioengineered erosion control measures, these sections of the streambank would be replanted with appropriate native riparian trees and understory.

Other streambank restoration along this reach is to involve removal of invasive understory plants along the streambanks and riparian areas (primarily Cape ivy and periwinkle) and their replacement with appropriate native riparian plants. The focus of all revegetation efforts in the project will be on planting a community of species consistent with the native plant community along the middle reach of Carpinteria Creek, including western sycamore and coast live oak, arroyo willow, black cottonwood, blackberry and other such species. The project may also involve isolated removal of invasive species growing in the stream channel itself. No impacts to native vegetation are anticipated, although some small willows (and native understory plants) that have colonized the stream channel may be impacted by grading to lay back vertical banks or by installation of bioengineering methods to control streambank erosion. Any native vegetation impacted by the project will be replaced in accordance with the mitigation standards specified in this document. All work will be done when the creek is dry.

Section 2:

A grant was secured by the Cachuma Resource Conservation District (RCD) and the Community Environmental Council (CEC) to develop a plan to remove an existing summer crossing that is considered an impediment to steelhead. The summer crossing is concrete with a deep pool at the downstream end. Work in this section is being included to assist the CEC and RCD in the compliance with CEQA and permitting requirements. The District's role in the project is limited to assisting these agencies by including the work in our annual planning process. The work will be constructed by, and will be the responsibility of those sponsoring agencies.

The conceptual design includes installation of a boulder weir downstream of the crossing where the banks of the creek currently have grouted rip-rap. The boulder weir will be keyed into the existing banks and bed of the channel. The boulder weir will be approximately 15' wide at the base (keyed in below the existing streambed) and approximately 5' wide at the top. The weir will be approximately 35' long (the existing

width of the creek). It will be approximately 3' higher than the existing streambed with a low-flow notch approximately 18" higher than the existing streambed downstream. The boulder weir will be installed using an excavator working in the bottom of the creek. The excavator will access the site and the boulders will be delivered to the site from the existing crossing. The boulder weir will raise the tailwater elevation to the extent that fish will be able to pass beyond the location of the crossing once it is removed.

The summer crossing will be broken up in place and all concrete and rebar will be hauled off-site. The crossing overlays rocks and boulders that constitute the substrate of the creek in this vicinity. The creek bed from the boulder weir upstream to a point beyond the crossing will be graded to match the existing slope and create pools and riffles consistent with the creek bed located upstream and downstream of the crossing.

A bridge will be installed to maintain access to the property in lieu of the summer crossing. Details of the bridge design are to be determined but will require the construction of bridge abutments at both banks of the creek in the vicinity of the existing summer crossing. The extent of the abutments will generally match the areas on the banks where the summer crossing currently exists. The creek bed under the bridge will be comprised of the natural substrate.

No impacts to bank vegetation is anticipated. There is no vegetation at the proposed location of the boulder weir or where the bridge abutments will be located at the existing summer crossing. There is currently no vegetation in the streambed at this location. All work will be done when the creek is dry.

Section 3:

Two downed cottonwoods approximately 150' apart will be removed from this section.

Section 4:

Another downed cottonwood will be removed from this section.

Section 5:

A large downed cottonwood will be removed from this section of the creek.

Section 6:

Small willows have begun to colonize the west side of the creek immediately upstream of Carpinteria Avenue. Hand crews will remove the willows for a distance of approximately 120'. A follow-up application of Aquamaster herbicide will be made to inhibit regeneration. Approximately 900 sq. ft. will be impacted.

Section 7:

A large patch of *Arundo donax* persists on the east bank of the creek in this section. The *Arundo donax* will be cut at the base and hauled out of the creek with a winch truck. Applications of Aquamaster herbicide will be made to the cut stumps until this stand is completely eradicated. Once the *Arundo donax* has been completely eradicated, the area will be revegetated with native riparian plants creating approximately 2000 sq. ft. of riparian habitat.

Section 8:

A downed cottonwood will be removed from this section of the creek.

Impact Analysis and Mitigation Measures:

Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR.

Impacts:

Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:

Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Hydrology

Impacts:

EIR Section 5.1.2

Preventing a Build up of Channel Resistance May Increase Velocities. Channel resistance is reduced by brushing, mowing, spraying, and discing to remove obstructive and/or silt-trapping vegetation; and by removing storm debris and obstructive sandbars. These actions can result in higher velocities, which in turn could theoretically cause minor and localized channel degradation that contributes to bank erosion in the affected reach. This impact is expected to occur very infrequently, if at all, and would only have localized hydraulic impacts. To ensure that this impact is avoided under the current program, the District would conduct an “engineering analysis” (Mitigation Measure H-1) to determine the need, nature, and extent of maintenance activities each year along maintained drainages, and give full consideration of incidental adverse hydraulic effects associated with channel maintenance.

Reduced Bank Stability due to Giant Reed Removal. The District may periodically remove giant reed plants from stream banks for habitat restoration purposes if the stands are large and appear to represent a significant threat to the local riparian vegetation. Removal of large stands could destabilize banks and result in increased local bank erosion and downstream sedimentation. Hydraulic impacts would be localized. In addition, large stands of giant reed on banks that are vulnerable to erosion are few in number.

Effect of Equipment on Channel Bed. For large maintenance projects, the movement of equipment in the channel bed can disrupt any armored layer on the channel bed and loosen sediments. It may also reduce the channel topographic diversity, which imparts a certain resistance to flow, thereby increasing flow velocities and sediment transport capacity.

Mitigation Measures:

EIR Section 5.1.3

H-1 - Maintenance Need Analysis. The District shall evaluate relevant hydraulic factors when determining the need, type, and extent of channel maintenance for non-exempt watercourses where natural geomorphic processes are largely intact. Key factors that shall be included in the evaluation include: (1) hydraulic benefits of maintaining the bankful channel (if present) dimensions, natural sinuosity, and natural channel bed roughness; and (2) potential adverse hydraulic effects of excessive brushing, channel shaping, equipment activity in the channel, and bank hardening. Hydraulic principles of creating and maintaining channel stability and sediment transport equilibrium shall be applied, if applicable. The analyses and determinations relevant to this issue shall be documented in the Annual Plan. Clear maintenance objectives with attainable benefits for the protection of life, property, and habitat shall be established for each project and presented in the Annual Plan. A primary objective of this measure is to minimize maintenance activities to the extent feasible, consistent with District's program objectives. Monitoring and Timing: The District staff will complete the analysis specified in the measure as part of the development of the Annual Maintenance Plan each spring. District personnel will conduct and/or oversee the maintenance work, and ensure that the results of the analysis are implemented. Reporting: The need analysis will be documented in the Annual Maintenance Plan. A summary of the maintenance work conducted will be documented in the annual post maintenance report.

H-6 – Removal of Giant Reed from Banks. If the District will remove a stand of mature giant reed from the bank for habitat restoration purposes, the following measures shall be implemented to ensure that the bank will remain stable after treatment. To the extent feasible, the least invasive method of giant reed removal shall be used, and the removal of native vegetation from the banks shall be minimized. The District shall stabilize the banks after giant reed removal using biotechnical methods that include native plants. This measure shall also apply if similarly large stands of other non-native plants are removed from banks. Monitoring and Timing: The District staff will conduct and/or oversee the maintenance work, and ensure that the appropriate weed removal and bank stabilization method is used. The latter will be identified in the Annual Maintenance Plan. Reporting: A summary of the maintenance work will be documented in the annual post maintenance report.

B-7 - Post Maintenance Channel Bed Treatment. The District shall roughen the channel bed after channel desilting maintenance to create microtopography that will encourage re-establishment of aquatic habitats over time. Pools and riffles shall be recreated in the work area if they were removed during maintenance, to the extent feasible. Modifications of the creek bed shall be consistent with geomorphological considerations identified through Mitigation Measure H-1. Monitoring and timing: The district staff will conduct and/or oversee the maintenance work, and ensure that the channel bed treatment is completed consistent with the mitigation measure. A description of the locations of channel bed treatment following desilting will be included in the annual maintenance plan. Reporting: A summary of the maintenance work will be documented in the annual post maintenance report.

Residual Impacts:

Incorporation of the above mitigation measures would reduce the impacts to Hydrology to less than significant levels.

Water Quality:

Impacts:

EIR section 5.2.2

Potentially Reduce the Amount of Natural Biofiltering. Removal and/or thinning of vegetation from channel bottom due to brushing, herbicide application, desilting, and channel shaping cause a temporary reduction in vigor and/or cover of successional riparian habitats and emergent wetlands. This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. It could potentially reduce the bio-filtration effects (if any) of emergent wetlands present along the wetted channel and debris basin bottom. As such, maintenance activities could contribute to an overall decrease in water quality.

Potentially Adverse Herbicide Concentrations. The application of herbicides to control emerging vegetation on the channel bed is not expected to introduce substantial amounts of herbicide to the water in the drainage where fish, aquatic organisms, and humans could be exposed because of the following reasons: (1) no herbicide is directly applied to open water; (2) overspray is minimized by precise spraying by trained field crews; (3) most spraying occurs in the fall when flows are absent in drainages; (4) glyphosate is strongly absorbed by soil particles and not easily mobilized once it has contact with soils or wet sediments; and (5) residual herbicide in soils or sediments are subject to microbial degradation. However, there is a potential for localized elevated concentrations of glyphosate in drainages due to excessive application of herbicides or poor application methods that result in overspray which would degrade water quality. While this impact would be localized and temporary, it is considered a significant, but mitigable cumulative impact because of the wide use of herbicides throughout the county.

Accidental Spills and Leaks. Accidental leakage or spill of fuel and/or oil from heavy equipment working within or directly adjacent to the watercourse or in a debris basin can cause discharge of pollutants to the creek, which would degrade water quality. This impact is anticipated to be highly localized because most accidental spills are limited in quantity (e.g., less than 50 gallons) and would occur in the dry season when flows are absent. Potential accidental spills of herbicides from applicators.

Mitigation Measures:

EIR section 5.2.3

See Hydrology Section for Mitigation Measures H-1 and B-7.

B-2 – Minimize Vegetation Removal from Channel Bottom. The District shall minimize vegetation removal from the channel bottom to the least amount necessary to achieve the specific maintenance objectives for the reach (i.e., removing obstructive vegetation or silt-trapping vegetation), consistent with the hydraulic considerations under Mitigation Measure H-1. Brushing and herbicide application for vegetation on the channel bottom shall be conducted in a non-continuous manner, to the extent feasible, allowing small patches of in-channel vegetation to persist. Monitoring and Timing: The District staff will determine the minimal amount of

vegetation to be removed as part of the development of the Annual Maintenance Plan each spring. District personnel will conduct and/or oversee the maintenance work, and ensure that the vegetation removal occurs as intended under this measure. Reporting: The area of vegetation to be removed will be documented in the Annual Maintenance Plan. A summary of the actual work conducted will be documented in the annual post maintenance report.

W-2 – Responsible Herbicide Application. To the extent feasible, the primary herbicide application each year shall occur during the months of August through November, when stream flows are minimal. In some instances, a follow-up application will be made in the spring to reduce the frequency of maintenance. Herbicides shall be applied by hand-held sprayers rather than from truck mounted sprayers to the extent feasible. The dilution and application of herbicides shall be conducted in strict accordance with all label recommendations, including all restrictions related to public health, worker safety, and the protection of aquatic organisms. Herbicides shall not be applied when winds at the application site exceed 5 miles per hour, within 12 hours of a forecasted rain event, or when vegetation surfaces are covered with water from recent rainfall or dew. Herbicides shall be applied carefully to plant surfaces in minimal effective amounts, minimizing drift to non-target plants and overspray onto the ground or to open water. Signs shall be placed to warn the public if herbicides are applied within 50 feet of any public recreation location, such as a trail, picnic spot, or other site of regular human activity. The signs shall remain for 48 hours after the application of the herbicide. The District shall also notify residences and businesses located adjacent to drainages to be treated with herbicides. Notification shall occur by mail within 7 days of the planned maintenance work. Monitoring and Timing: The District staff will conduct and/or oversee the maintenance work to ensure that the appropriate herbicide application method is used by field crews, identify target vegetation, and place warning signs. Reporting: A summary of the maintenance work will be documented in the annual post maintenance report.

W-3 - Maintain Biofiltering by Reseeding Channel Bottom Areas. To the extent feasible and consistent with the maintenance objectives, the District shall avoid removal of emergent herbaceous wetland vegetation on the channel bottom that is rooted in or adjacent to the low flow channel or a pond. This same type of vegetation shall be protected, to the extent feasible, during the removal of taller obstructive woody vegetation on the channel bottom. In addition, the District shall re-seed desilted channel areas that formerly contained emergent vegetation, provided that suitable native seeds from plants that provide biofiltration are available and that the new vegetation will not significantly affect channel conveyance or significantly increase the need for future maintenance. Seeding shall occur after the major winter runoff has occurred and stream flows have receded to prevent loss of seeds. Monitoring and Timing: The District staff will conduct and/or oversee the maintenance work, and identify areas to be seeded pursuant to this measure. Areas to be seeded will be identified in the Annual Maintenance Plan. Reporting: A summary of the maintenance work will be documented in the annual post maintenance report.

W-4 - Prevent Accidental Spills and Leaks. The mixing and dispensing of herbicides and equipment fueling or maintenance shall not occur within a channel or a basin. Spill containment and clean-up procedures for herbicides and vehicle fuels and oils shall be developed by the District. All field personnel shall be trained and all field vehicles shall be equipped with appropriate materials. Monitoring and Timing: The District staff will conduct and/or oversee the

maintenance work, and ensure that the appropriate spill avoidance and containment procedures are implemented. Reporting: Accidental spills or leaks, and the associated clean up, will be documented in the annual post maintenance report.

W-6 – Public Education Regarding Creek Water Quality. The District shall prepare information brochures for residents located along maintained drainages that explain: (1) how the District applies herbicides in a responsible manner, and provides guidelines on how landowners can use herbicides for residential and commercial uses in a similarly responsible manner to minimize water quality impacts to the creeks; and (2) how landowners can reduce pollution to the creek from their activities by employing best management practices for landscape fertilization; disposal of household paints, hazardous materials and petroleum products; management of trash and landscaping debris; and handling of pet wastes. The brochure shall be prepared in coordination with Project Clean Water and mailed to affected areas on a 3-year rotating basis. It shall include the Project Clean Water phone numbers for technical assistance and for reporting illegal dumping. The brochure shall also include information on how landowners can make their land available for habitat restoration under the routine maintenance program. Monitoring and Timing. The District staff will complete the brochure within one year of the approval of the updated maintenance program. Reporting. The District shall summarize the number of mailings each year in the post-maintenance annual report.

W-7 – Reporting Water Quality Incidents. The District shall train its maintenance crews to identify and report incidents or materials observed in the creeks during routine maintenance work that could cause significant water quality impacts, including illegal dumping of trash, pet waste, and green waste; homeless encampments; and drain outlets with evidence of poor water quality. The staff shall contact appropriate authorities in the County or affected municipalities. Monitoring and Timing. The District staff will make the above observations during all maintenance work and record the observations on a form, and if possible, with photographs. Reporting. The District shall summarize the number of reports filed each year in the annual post-maintenance reports.

W-8 - Reduce Overall Herbicide Use. The District shall make every feasible effort to reduce the overall amount of herbicides used in the maintenance program over the next ten years through more restrictive and selective applications, greater use of manual clearing, actions to reduce in channel obstructive vegetation through shading by new canopy trees, and coordination with the County's Integrated Pest Management Strategy to identify more environmentally friendly pesticides. The IPM Strategy was adopted by the Board of Supervisors to promote the maintenance of the County's landscapes in way that protects and enhances natural resources and public health, while providing a framework for evaluating pesticide use by County Departments in pursuit of their missions. Monitoring and Timing. The District shall carefully consider the use of herbicides in each Annual Plan, and seek alternative methods. Reporting. The District shall report the amount of herbicides applied each year and the miles of drainages affected in the Annual Plan and annual post-maintenance report, including a cumulative account of past years.

Residual Impacts:

Incorporation of the above mitigation measures would reduce the impacts to Water Quality to less than significant levels.

Wetlands, Riparian Habitat, and Rare Plants

Impacts:

EIR Section 5.3.2

Reduce Amount and Quality of Channel Bottom Habitat. Removal and/or thinning of vegetation from channel bottom due to brushing, herbicide application, desilting, and channel shaping cause a temporary reduction in vigor and/or cover of successional riparian habitats and emergent wetlands. This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. Although the functions and values of the habitat temporarily disturbed by maintenance would be replaced through the District's habitat restoration program, there is a potentially adverse cumulative effect of annual habitat disturbances throughout the County.

Access Ramp Impacts. Construction or maintenance of access ramps could temporarily reduce the amount of riparian habitat.

Temporary Habitat Disturbance. Disturbance of channel banks and bed from heavy equipment during channel shaping, placement of bank protection, desilting operations, ramp construction, and repair of bank protection and grade stabilizers could temporarily remove wetland, riparian and aquatic habitats in work areas.

Displace Sensitive Plants. Disturbance of channel banks and bed from heavy equipment during channel shaping, placement of bank protection, channel shaping, desilting operations, ramp construction, and repair of bank protection and grade stabilizers could remove regionally rare plant species. This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. This impact is expected to occur infrequently because so few sensitive plants occur in the areas maintained.

Mitigation Measures:

EIR Section 5.3.3

See Water Quality Section for Mitigation Measure B-2.

B-1 - Compensatory Habitat Mitigation. The District shall provide compensatory habitat mitigation for the removal of riparian and wetland habitat associated with brushing, herbicide spraying, channel shaping, bank stabilization by placing fill or grading banks, pilot channel construction, bank protection installation, access ramp construction, and channel desilting. The mitigation shall be required for all vegetated habitat, with the exception of areas dominated by aggressive, noxious non-native weeds (e.g., giant reed). The restoration treatment shall occur either on-site (i.e., along suitable portions of the drainage and its tributaries where the project is located) or off-site (Los Carneros Mitigation Bank) in accordance with the updated restoration plan described in the updated Program EIR, using a 1:1 acreage replacement ratio. A 2:1 ratio

shall be used for impacts due to new grade stabilizers and non-vegetated bank protection, as described in the updated Program EIR. Prior to the use of the Los Carneros Mitigation Bank, the District shall consult with other organizations with expertise in habitat restoration (e.g., Wetlands Recovery Project) to determine if they have any knowledge of any on-site opportunities. Mitigation for specific affected areas shall only occur once during the next ten years of the maintenance program. That is, once habitat mitigation has been achieved for a portion of a drainage, no further mitigation is required for future maintenance of that reach or site over the next ten years regardless of the type of maintenance activity, provided the previous habitat mitigation has been successfully implemented, and the District continues to minimize habitat impacts to the extent feasible. After ten years, the habitat mitigation requirement shall begin again, regardless of previous habitat mitigation. Native trees with a diameter at breast height of 6 inches or more that are removed shall be replaced at a 10:1 ratio at the restoration site, independent of the replacement of habitat based on acreage. To the extent feasible, habitat restoration opportunities shall be sought on the tops of banks and landward of the creek that could provide a bio-filtering benefit for overland stormwater runoff. In addition, the District will seek opportunities to use regionally rare plants in the restoration plans, as feasible. Monitoring and Timing: The District staff will determine the need and scope of compensatory habitat mitigation as part of the development of the Annual Maintenance Plan each spring. Subsequent to the maintenance work, the District Biologist will implement the restoration work, including site preparation and planting. If off-site mitigation is used, the District will acquire habitat credits at the LCMB in accordance with the process approved by regulatory agencies. Reporting: The determination of the habitat mitigation needs and approach will be documented in the Annual Maintenance Plan. The success of habitat restoration will be documented in the District's annual restoration status report.

B-3 - Construction Monitoring During Maintenance Activities. The District Biologist shall monitor maintenance activities daily to ensure that the appropriate methods and limits are used. Results of the monitoring shall be documented in the annual post-maintenance report. These activities include brushing, herbicide application, channel shaping, desilting, bank stabilization by placing fill or grading banks, bank protection construction or repair, grade stabilizer construction or repair, pilot channel construction, and access ramp construction. Monitoring and Timing: The District Biologist will conduct daily inspections of the maintenance work. Reporting: A summary of the maintenance work based on monitoring by the District staff will be described in the annual post maintenance report.

B-4 - Restore Temporarily Disturbed Areas. The District shall restore channel banks containing riparian or wetland vegetation that are temporarily disturbed by maintenance or construction activities associated with the following: channel shaping, placement of bank protection, ramp construction, and repair or construction of bank protection and grade stabilizers. Restoration objectives, methods, plant species, maintenance, and monitoring shall follow the guidelines in the updated restoration plan described in the Program EIR. The restoration of channel bed habitats shall only occur if it would not conflict with the maintenance needs in the affected reach. Monitoring and Timing: A description of the proposed maintenance work, and the need for, and scope of, post-maintenance restoration of temporarily disturbed areas will be included

in the Annual Maintenance Plan. The District staff will conduct and/or oversee the maintenance work and subsequent restoration. Reporting: A summary of the maintenance and restoration work will be documented in the annual post maintenance report.

B-5 - Pre-Construction Biological Surveys and Avoidance Measures. A District biologist shall inspect all maintenance areas in creeks and basins during the annual spring field assessments (April and May) to determine if any sensitive plants, fish, or wildlife species are present, or habitats for these species are present. If the species are present, the District shall modify maintenance activities to avoid removal or substantial disturbance of the key habitat areas or features. Avoidance and impact minimization measures shall be described in the Annual Plan for each maintenance project. If a rare plant could be affected, the District shall relocate the plant by cultivation or seeding methods to a suitable nearby site. If a sensitive fish or wildlife species will be present at a maintenance site during the work period, the District shall schedule the work to avoid the species, if possible. If avoidance is not feasible, the District shall attempt to relocate the species or population with approval from the California Department of Fish and Game, US Fish and Wildlife Service or National Marine Fisheries Service, as appropriate. This measure applies to all currently known sensitive species that occur in maintained drainages and basins, as well as species that are determined to be sensitive in the future. Endangered species experts with handling permits shall be consulted during relocation efforts to provide additional assurances that relocation is effective. Such consultation shall include assistance in field efforts, as warranted. Monitoring and Timing: The District staff will document occurrences of sensitive species in or near the work areas in the Annual Maintenance Plan. Avoidance and impact minimization measures will also be specified. District staff will monitor the avoidance as part of the maintenance work. Reporting: A summary of the maintenance work and compliance with the avoidance measures will be documented in the annual post maintenance report.

B-6 - Construction Monitoring for Sensitive Species. The District Biologist shall monitor, on a daily basis, earth and vegetation disturbing maintenance activities located at and adjacent to locations where sensitive species are known to occur. The need for monitoring and the areas to be monitored shall be determined during the annual field assessment in the spring. The objective of the monitoring is to ensure that key habitat features or species locations are avoided. Monitoring and Timing: The District Biologist will monitor maintenance work near sensitive species locations. Reporting: A summary of the maintenance work and associated monitoring will be documented in the annual post maintenance report .

H-8 – Access Ramps. The distance between access ramps shall be determined by balancing the impacts of driving equipment on the channel bed versus creating extra access points. Access ramps shall be placed in areas with minimum potential for erosion. Access ways shall be sited, constructed, and maintained in a matter that minimizes disturbance to native vegetation, wildlife, and aquatic organisms. The width of all new ramps shall be minimized to the extent feasible. Unneeded access ramps shall be removed and restored to a natural condition. For ramps that will be used infrequently (e.g. every three years or more), the District shall seed or plant the ramps after each use with native species, compatible with adjacent vegetation and resistant to occasional vehicle use, to prevent infestations of noxious weeds. Permanent and frequently used ramps shall be stabilized with vegetation, as feasible, and designed to minimize unauthorized vehicle access. Monitoring and Timing: The District staff

will conduct and/or oversee the maintenance work, and ensure that the ramp design is consistent with the mitigation measure. A description of the proposed ramp will be included in the Annual Maintenance Plan. Reporting: A summary of the maintenance work will be documented in the Annual Post Maintenance Report.

Residual Impacts:

Incorporation of the above mitigation measures would reduce the impacts to Wetlands, Riparian Habitat, and Rare Plants to less than significant levels.

Fish, Aquatic Species, and Wildlife

Impacts:

EIR section 5.4.2

Displace Wildlife due to Vegetation Removal in the Channel Bottom. Removal and/or thinning of vegetation from channel bottom due to brushing, herbicide application, desilting, and channel shaping cause a temporary reduction in vigor and/or cover of successional riparian habitats and emergent wetlands. This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. These actions could reduce foraging and loafing habitat for certain riparian and wetland dependent bird species. It can also reduce habitat heterogeneity for reptiles and small mammals, and degrade aquatic habitats by removing protective cover and increasing temperatures. While the long term functions and values of the habitat temporarily disturbed by maintenance would be replaced through the District's updated habitat restoration program, there will be a temporal impact to wildlife that cannot be fully mitigated.

Adverse Effects of Maintenance on Aquatic Habitat. Channel shaping, bank stabilization by placing fill or grading banks, sandbar removal, excessive removal and/or thinning of in-channel vegetation, and pilot channel construction could reduce vegetation cover, pools and gravel beds, organic input from overhanging vegetation supporting aquatic productivity, and instream cover and debris providing micro-habitat. In addition, fish and aquatic organisms could be directly displaced. These impacts are temporary and reversible.

Displace Wildlife for New Access Ramps. Construction or maintenance of access ramps could temporarily reduce the amount of riparian habitat. This action could adversely affect nesting, cover, and foraging habitat for riparian-dependent bird species, as well as cover for riparian amphibians, reptiles, and mammals.

Displace or Remove Sensitive Fish and Wildlife. Disturbance of channel banks and bed from heavy equipment during channel shaping, placement of bank protection, channel shaping, desilting operations, ramp construction, and repair of bank protection and grade stabilizers could remove and displace sensitive fish and wildlife species, depending upon location and time of year. This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. Species that could be directly affected include the southern steelhead trout, arroyo chub, southwestern pond turtle, two-striped garter snake, San Diego horned lizard, California red-legged frog, silvery legless lizard, and tri-colored blackbird. Species that could be indirectly affected due to habitat modification include

southwestern willow flycatcher, least Bell's vireo, yellow warbler, yellow breasted chat, purple martin, warbling vireo, Wilson's warbler, Swainson's thrush, blue grosbeak.

Fish and Wildlife Exposure to Herbicide The analyses presented in Section 5.2.3 indicated that the application of herbicides to control emerging vegetation on the channel bed is not expected to introduce substantial amounts of herbicide to the water in the drainage where fish, aquatic organisms, and humans could be exposed, because of reasons: (1) no herbicide is directly applied to open water; (2) overspray is minimized by precise spraying by trained field crews; (3) most spraying occurs in the fall when flows are absent in drainages; (4) glyphosate is strongly absorbed by soil particles and not easily mobilized once it has contact with soils or wet sediments; and (5) residual herbicide in soils or sediments are subject to microbial degradation. However, there is a potential, albeit very remote, that adverse herbicide concentrations may be temporarily present in aquatic areas immediately after spraying due to excessive or poor application.

Mitigation Measures:

EIR section 5.4.3

See Hydrology Section for Mitigation Measure H-1.

See Water Quality Section for Mitigation Measures B-2 and W-2.

See Wetlands, Riparian Habitat, and Rare Plants Section for Mitigation Measures B-1, B-3, B-5, and B-6.

F-1 – Assist Others with Fish Passage Impediment Removal Projects. Subject to available resources, the District shall provide technical and regulatory assistance to other parties (agencies and non-governmental organizations) seeking to remove or modify fish passage impediments along reaches maintained by the District. Assistance shall include review and recommendation concerning project plans; and identifying a CEQA lead agency and assisting in the preparation of a CEQA document for the proposed project; and general assistance in acquiring access easements and permits. Monitoring and Timing: The District shall provide assistance on an as-needed basis. Reporting: The District shall document all assistance in the Annual Plan.

Residual Impacts:

Incorporation of the above mitigation measures would reduce the impacts to Fish, Aquatic Species, and Wildlife to less than significant levels.

Air Quality

Impacts:

EIR Section 5.5.2

Equipment Emissions. Temporary emissions of reactive organic compounds (ROC), particulate matter, and NOx associated with gasoline and diesel-powered heavy-duty maintenance equipment, as well as employee vehicles and trucks transporting excavated materials to and from maintenance sites.

Fugitive Dust Emissions. Temporary emissions of fugitive dust (particulate matter) due to earth moving activities during maintenance, including channel shaping, desilting, bank stabilization by placing fill or grading banks, bank protection construction or repair, pilot channel construction, and access ramp construction.

Mitigation Measures:
EIR Section 5.5.2

A-1 – Reduce Emissions. Implement the following Santa Barbara County APCD-approved measures for each piece of heavy-duty diesel construction equipment to minimize NO_x emissions: (1) The engine size of construction equipment shall be the minimum practical size; (2) Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated clean diesel engines) should be utilized wherever feasible; (3) The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest number is operating at any one time; (4) Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or precombustion chamber engines; (5) Catalytic converters shall be installed on gasoline-powered equipment, if feasible; (6) Diesel catalytic converters shall be installed, if available; and (7) Diesel powered equipment should be replaced by electrical equipment, whenever feasible. Monitoring and Timing: District personnel will conduct and/or oversee the maintenance work, and ensure that the above measures are being implemented, as feasible. Reporting: A summary of maintenance work, including a statement on compliance with the above measures, will be documented in the annual post maintenance report.

A-2 – Reduce Fugitive Dust. Implement the following Santa Barbara County APCD-approved measures to minimize fugitive dust emissions: (1) After clearing, grading, earth moving or excavation is complete, the disturbed area must be treated with watering, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur; (2) During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this shall include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency shall be required whenever the wind speed exceeds 15 mph. Reclaimed water shall be used whenever possible; (3) Minimize the amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less; (4) Gravel pads should be installed at all access points to prevent tracking of mud onto public roads; (5) If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation; (6) Trucks transporting fill material to and from the site shall be tarped; and (6) Dust control requirements shall be shown on all grading plans. Monitoring and Timing: District personnel will conduct and/or oversee the maintenance work, and ensure that the above measures are being implemented, as feasible. Reporting: A summary of maintenance work, including a statement on compliance with the above measures, will be documented in the annual post maintenance report.

Residual Impacts:

Incorporation of the above mitigation measures would reduce the impacts to Air Quality to less than significant levels.

Noise

Impacts:

EIR Section 5.6.2

Maintenance Equipment Noise. Maintenance activities that require the use of heavy equipment, such as channel shaping and desilting, could temporarily increase the ambient indoor and outdoor noise levels for noise-sensitive receptors located in close proximity to the watercourse where maintenance work is conducted. This impact would be limited to weekdays between 8 AM and 5 PM, with a limited duration of several days at any one location. Increased ambient noise levels could cause a nuisance to noise sensitive receptors, such as residences, schools, nursing homes, and day care centers.

Mitigation Measures:

EIR Section 5.6.3

N-1 – Minimize Noise. Routine maintenance work shall be limited to weekdays and the hours of 7:30 AM and 4:30 PM. Equipment and haul trucks shall be equipped with functioning and properly maintained muffler systems, including intake silencers where necessary. Additional reductions in noise emissions shall be provided, as feasible, by performing noisy operations, such as chipping and loading spoils into dump trucks on the banks, as far away as practicable from sensitive receptors. Monitoring and Timing: District personnel will conduct and/or oversee the maintenance work, and ensure that the above measures are being implemented. Reporting: A summary of maintenance work, including a statement on compliance with the above measures, will be documented in the annual post maintenance report.

Residual Impacts:

Incorporation of the above mitigation measures would reduce the impacts to Noise to less than significant levels.

Cultural Resources

Impacts:

EIR Section 5.7.2

Disturb Cultural Resources. There is a remote potential for certain earth-disturbing maintenance activities to disturb buried prehistoric and historic archeological sites and isolated artifacts. This impact would occur only on undisturbed upland sites outside watercourse channels and basins due to incidental excavation grading banks for stabilization, installing or repairing bank protection, and constructing access ramps.

Mitigation Measures:
EIR Section 5.7.3

C-1 - Unexpected Archeological Finds. If cultural materials are unexpectedly uncovered during maintenance activities, the District shall immediately consult with a qualified archeologist who shall inspect the material and coordinate with the District to halt or redirect earth-disturbing maintenance work until the significance of the material is determined, and the location is cleared for further work. Monitoring and Timing: District personnel will conduct and/or oversee the maintenance work. They will address any cultural resource issue that occurs unexpectedly in the field. Reporting: A summary of maintenance work, including a description of any measures taken to avoid cultural resources, will be documented in the annual post maintenance report.

C-2 – Archeological Surveys. The District shall conduct an archeological field investigation in maintenance areas that may be disturbed by excavation activities associated with routine maintenance when such work occurs in upland areas outside watercourses and basins that: (1) appear to represent undisturbed ground not subject to previous excavations or significant grading; and (2) contain known significant archeological sites. The investigation shall be conducted by a qualified cultural resource specialist. Monitoring and Timing: The District staff will determine the need, if any, for cultural resource investigations prior to the maintenance work, as part of the development of the Annual Maintenance Plan each spring. Reporting: Results of the studies will be incorporated into the Annual Maintenance Plan.

Project Specifics:

The project will take 2-3 weeks to complete.