

SECTION 10: RECOMMENDED IMPLEMENTATION PROGRAM

10.1 Expected Uses of This Plan

This plan is meant to be a document that gives an overview of everything being discussed, attempted and/or accomplished in the watershed which impacts the creek. The Carpinteria Creek Watershed Coalition (the Coalition) has requested that a watershed plan be written which could serve as a “road map” for anyone to pick up and understand what environmental concerns exist in the watershed, what is being done to address those concerns, and how they can get involved.

10.1.1 Creek Restoration Approach

The Coalition includes representatives from most of the regulatory and service agencies and organizations related to creek protection and restoration. Project descriptions, such as those presented in the Conception Coast Project (Stoecker et al., 2002) are discussed by the coalition to determine which projects will accomplish the largest amount of habitat restoration and have the most potential of being successful. The Coalition has formed a technical committee that takes a project and contacts the landowner to determine the potential for implementing the project. Table 8.1 and Figure 8.1 show the list that has been developed by the Coalition. There are several different types of project in Carpinteria Creek. Barrier removal projects require design and permitting and are expensive. The first two barrier removal projects are going to cost more than \$300,000 to complete. *Arundo donax* removal projects are being coordinated by the Agricultural Commissioner’s Weed Management Area biologist, will cost less than \$100,000 and require minimal permits. On-farm projects are being coordinated by the Central Coast Agriculture Coalition and NRCS, and are paid for by the landowners.

In-stream habitat creation has not been formally discussed prior to the writing of this plan. Currently there are not any specific projects where an in-stream pool is being proposed to be constructed. Two barrier removal projects that are the closest to being implemented will include rock weirs and instream habitat creation as part of the construction. Whenever a project is going to be moved toward funding, the technical committee of the Coalition reviews the project to determine what service organization would be appropriate to manage and perhaps fund the project. The Coalition is very careful in making sure that the correct recommendations are being made and the right people are reviewing the project. Coalition members include service organizations who manage projects and regulatory agencies that permit projects.

10.1.2 Organizations that Manage Projects

Central Coast Agriculture Coalition

The Central Coast Agriculture Coalition (Ag Coalition) is composed of five agricultural organizations: The Cattlemen’s Association, Central Coast Wine Growers Association, Flower Growers Association, The Santa Barbara County Farm Bureau, and the Vegetable Grower and Shipper Association. In July 2004, the RWQCB adopted the “Conditional Waiver of Waste Discharge Requirements for Irrigated Lands”, also referred to as the “Ag waiver”. The Coalition

has a hired a Watershed Coordinator, who will be focusing on four watersheds, including the Carpinteria Creek Watershed during 2005. One of the coordinator's tasks is to assist farmers and ranchers in complying with the new waiver requirements. Each of the farmers is being asked to consider riparian zone improvement practices and in-stream habitat increases.

Natural Resources Conservation Service

The USDA Natural Resources Conservation Service (NRCS) is a federal agency devoted to conserving soil and water resources on private land. The NRCS can provide technical and cost-share assistance to farmer implementing conservation practices. The NRCS has contracted with four farmers in the Carpinteria Creek Watershed to implement farm conservation plans. The NRCS will work with any farmer or rancher that requests assistance and a first step of working with a cooperater, is to fill out an environmental questionnaire that includes questions about riparian zone and in-stream habitat. A list of practices that are appropriate for farms in Carpinteria Creek are located in Appendix F.

Cachuma Resource Conservation District

Cachuma Resource Conservation District (CRCD) is a local special district that works cooperatively with the NRCS to implement conservation practices on farms and ranches. CRCD works with farmers and ranchers to assist them in developing irrigation plans, erosion management techniques and farm conservation plans in order to protect private property and healthy watersheds. In the Carpinteria Creek Watershed, CRCD is developing a farm water quality management plan for an avocado farm along the creek. A summary of that plan is located in Appendix E. CRCD employs two irrigation specialists that staff an Irrigation Mobile Lab. Mobile Lab staff have conducted irrigation evaluations on five different farms in Carpinteria Creek Watershed in 2004. CRCD is also participating in water quality educational workshops with the Santa Barbara County Water Agency in Carpinteria, and with the UCCE and Ag Coalition on Farm Water Quality Short-courses. CRCD is a member of the CCWC and receives updates on all of the projects.

Carpinteria Creek Committee

The Carpinteria Creek Committee was founded in 1989 out of a concern about the amount of trash in the creek by Dr. Gilbert Moore and Bob Hansen. While the group initially met to organize creek cleanups and inform the community about the importance of Carpinteria Creek, it soon became involved in land use issues. The committee has been instrumental in land use policy changes, such as the City's requirement that development next to the creek have a 50 foot set-back. They also insured that other wetland protections were built into the City's Local Coastal Plan and General Plan.

County of Santa Barbara Water Agency

The Water Agency is not only responsible for water supply in the County of Santa Barbara, but does provide water quality monitoring services through Project Clean Water, and manages watershed restoration projects. They also involved in the development of several watershed management plans and provide education and outreach to the local schools and community about water, water quality and watershed issues. The Water Agency is conducting water quality improvement workshops with greenhouse growers in Carpinteria Creek Watershed. The Water Agency is a member of the CCWC and is continually updated on work in progress.

County of Santa Barbara Flood Control District

The County of Santa Barbara Flood Control District (Flood Control) maintains two debris basins and conducts annual vegetative maintenance in the channel. Flood Control is a member of the CCWC and is continually updated on work in progress.

Community Environmental Council

The Watershed Restoration Program at the Community Environmental Council (CEC), initiated in 2001 provides project management for restoration efforts and organizational support for several watershed groups in Santa Barbara County. The program accomplishes this by assembling all stakeholders together to talk about issues and potential projects in each watershed. By bringing together private landowners, nonprofit organizations, businesses and resource agencies, an open dialogue can occur and assist in moving projects along quicker in the permitting process.

10.1.3 Agencies that Regulate Projects

California Coastal Commission

The Coastal Commission makes coastal development permit decisions, reviews local coastal programs, and reviews federal activities that affect the coastal zone. The Commission gives the Carpinteria Planning Commission the authority to issue coastal development permits.

City of Carpinteria

The City of Carpinteria is responsible for developing and updating a Local Coastal Program and delineating the coastal zone boundary. The California Coastal Commission which gave the City of Carpinteria Planning Commission the authority to issue coastal development permits, certified this Coastal Plan. Carpinteria Creek Watershed activities affecting the coastal zone require a permit from the Planning Commission.

County of Santa Barbara

Santa Barbara County Code limits development along watercourses that are included in the areas of special flood hazard shown in flood insurance rate maps and to those parts of a watercourse that lie between areas of special flood hazard on the same watercourse (Figure 3.7). In this case, County Code prohibits construction and development within 50 feet from the top of the bank of any watercourse unless the necessary permits have been obtained and the County has approved the development.

California Department of Fish and Game

The state department of Fish and Game (DFG) manages California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. Permits must be granted by the DFG under the California Endangered Species Act for any activity that results in adverse affects to listed species. Before anything can be removed or deposited into a creek, a permit must be obtained from the DFG under the Streambed Alteration Agreement.

Central Coast Regional Water Quality Control Board

The Central Coast Regional Water Quality Control Board (RWQCB) is charged with ensuring that water quality standards are met in Carpinteria Creek Watershed. This includes the issuance of several water quality permits , such as: stormwater discharge permits, which require a stormwater management plan during construction activities, a 401 clean water certification, waste discharge report (WDR) and an agricultural drainage waiver. They are also responsible for the development of TMDLs for those water bodies listed on the section 303(d) list.

NOAA Fisheries

NOAA Fisheries is a Federal Agency tasked to conserve protect, and manage living marine resources to ensure continued ecosystem functioning, economic opportunity and enhancement of the quality of life for the public. They are charged with the implementation of the Endangered Species Act of 1973 for marine and anadromous species, including Southern California Steelhead trout. Any work in the creek, such as modification of a concrete crossing impacts steelhead and requires that a NOAA Fisheries biologist be consulted.

United States Army Corps of Engineers

The U.S. Army Corps of Engineers provides engineering services to the nation, including planning, designing, and building and operating water resources and other civil works projects. Under Section 404 of the Clean Water Act, the Corps grant individual and general permits for

the discharge of dredged and fill material into U.S. waters. The Corps should be consulted any time earth work in a stream is planned in any area below the high water mark.

United States Fish and Wildlife Service

The mission of the U.S. Fish and Wildlife Service (FWS) is to work with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people. The FWS shares responsibility with NOAA Fisheries for administration of the Endangered Species Act and is primarily responsible for terrestrial and freshwater species. Activities affecting threatened or endangered terrestrial or freshwater species must be authorized by a permit from the U.S. Fish and Wildlife Service.

10.1.4 Recommended Restoration Actions

The coalition has utilized professional consultants and qualified agency staff to come up with recommended restoration actions for several of the projects listed on Table 8.1. Two of the barrier removal projects being addressed currently have required extensive engineering review. A free spanning bridge has been the recommendation in both cases. Some bioengineered practices such as brush mattresses and willow waddles were recommended for bank toe stabilization. Arundo removal is an important part of the habitat restoration in Carpinteria Creek. Erosion control specialists are consulted whenever Arundo to be removed is on a creek bank. Table 8.1 shows projects and recommended restoration actions.

10.1.5 Criteria for Evaluating Alternatives

Criteria for evaluating alternatives are that the alternative must be an improvement over what is already in place and it must be cost effective and there must be landowner cooperation. The coalition evaluates alternatives based on what is the most practical and what would be “fish friendly”. Pipe and wire revetment is not being recommended for any bank stabilization projects, but there are currently not any sections of pipe and wire that are being considered for removal. If a stream crossing is at the same grade as the creek, then it is given a lower priority for removal than a crossing which is causing drastic down-cutting of the creek bed.

10.2 Funding

There are several sources for funding at the local, state and federal levels. This includes private foundations as well as government agencies. Many agencies, such as the California DFG, NOAA Fisheries and the USFWS recognize the important role that a strong coalition can play in restoring local habitat for wildlife as well as human enjoyment.

The Coalition is supported by local, state, and federal government funds, as well as a local foundation. The California DFG is providing funds for organizational support for the Coalition as well as funds for this watershed assessment and management plan. They have also provided funds for surveying and engineering design for a fish passage modification. The County has

provided support for educational materials such as brochures, fact sheets, newsletters, website and a seven foot multi-panel display about the Carpinteria Creek Watershed. The California State Coastal Conservancy and the Wendy P. McCaw Foundation are providing funds for additional fish passage modifications. The Santa Barbara County Flood Control department is designing modifications for both debris basins in the watershed and has applied for construction funds from the DFG for the Gobernador debris basin. The Coalition also has a grant proposal to the NRCS for all construction activities in the watershed.

For more information about these grants, see Appendix G.

10.3 Schedule For Implementation

Most of the projects listed in this plan are in the design phase. While many projects have been identified, some are awaiting request for proposal opportunities. In 2005, most of the barrier removal/modification projects will be ready for construction and will need additional funds for implementation. Effective implementation, which includes coordination and oversight is critical to success of this plan. It is suggested that the Coalition develop an implementation schedule for the various projects identified in section eight. It is also suggested that riparian zone improvement and in-stream habitat installation be included in each barrier removal project.

10.4 Strategy For Incorporating Into Local Plans And Activities

Two barrier removal projects have been incorporated in Flood Control's annual maintenance plan. The annual maintenance plan identifies priorities for creek maintenance and is comprised of projects exempt under CEQA and projects which fall under a Program EIR. These two fish passage projects fall under the Program EIR. Since many of the local stakeholders are at the table because of monthly meetings of the Coalition, each member plays a role in alerting others about new events or activities that may impact the watershed. The Coalition plans to extend its outreach to the community by engaging students from the local schools and continued presence in the community by appearances at local events such as the farmer's market and avocado festival. Other activities include the annual barbeque to showcase Coalition projects, restoration workshops and a creek expo.

10.5 Limits To Implementation

10.5.1 Funding

As mentioned previously, additional funding will be needed for all of the barrier removal projects. Farm plans are the responsibility of the landowners, but some of the projects will require outside funding to be implemented. Outside funding for farm plans will be coordinated by the agricultural coalition and NRCS.

10.5.2 Local Capacity

CEC, the Water Agency and others have done an excellent job of taking the Conception Coast Project's recommendations for barrier removal and moving them towards construction. There are several private consulting firms that are qualified and able to provide the hydrologic modeling and engineering to design the projects. Funding is mentioned above, but in the future there will need to be an organization that can receive grant funds to implement the large projects. The Carpinteria Creek Watershed Coalition could be a good organization for fund management, but they will need to have a private non-profit status to receive grant funds. Being able to receive grant funding would enable the Coalition to hire a project coordinator.

10.5.3 Permit Coordination

In the Carpinteria Creek Watershed at least eight agencies must be consulted before a project can be legally implemented, each of those agencies is mentioned above, and each are involved in the Coalition. Even with all of the permitting agencies being involved in the coalition, landowners still are reluctant to implement projects because of the multi-layered regulation. The permit situation can be a dis-incentive towards landowners attempting to do good projects. There are models in other California watersheds where the permit process was streamlined into one permit. Coordinating permits in Carpinteria Creek would drastically improve watershed restoration.

10.5.4 Water Supply and Water Quality

Groundwater pumping since the 1940's has lowered groundwater elevations to the point where most of the channel below the confluence of Carpinteria and Gobernador Creeks is intermittent. Flows downstream of Highway 101 are related to urban and agricultural runoff and are of very low quality in non-rainy seasons. Even after all barriers for fish passage have been removed or modified, invasive plants removed and planted with natives, bank erosion controlled, if there is not water or if that water is of poor quality, the steelhead will not be able to move up the creek. Water supply and water quality in the lower reaches of Carpinteria Creek are crucial issues to deal with in relation to steelhead habitat.

10.6 Long-Term Data Collection And Watershed Management

10.6.1 Data collection

The Santa Barbara Channel Keeper, a member of the national Rivers Alliance organization network, has developed several "stream teams" in Santa Barbara and Ventura counties. These stream teams are composed of volunteers from the community who have been trained to take water quality samples according to established protocols. In addition to the volunteer stream teams, Channel Keeper has recently received funding to establish a San Jose Creek Walk team, a group of volunteers who will walk the local creek (San Jose is the first creek) to map invasive plants, bank erosion, fish barriers and other creek problems. With additional funding and training by Channel Keeper and the County Water Agency, a Carpinteria Creek stream team and creek walk team could be established to continue monitoring efforts.

10.6.2 Watershed management

The Carpinteria Creek Coalition is considering becoming a nonprofit organization. This would provide a funding mechanism for implementation projects, as discussed above. A watershed

coordinator could be hired and activities and organizations could be coordinated from a central, non-biased position. Carpinteria Creek watershed could also be coordinated by a more regional organization such as CEC. Implementation of a project is critical at this time in Carpinteria Creek. CEC is coordinating the Coalition using temporary grant funds, and is doing an excellent job of moving the projects forward. Key members of the coalition are mentioned above in this section, and members that work for permitting agencies as well as local organizations providing project management will all be instrumental in ensuring the long term success of projects in the Carpinteria Creek Watershed. If the Coalition seeks and achieves nonprofit status, they can hire a project coordinator who can develop proposals to obtain funding and hire subcontractors to complete the work.

10.7 Measures of Success

The Carpinteria Creek Watershed Coalition is one of the most successful models of collaborative watershed groups along the South Coast. By working together to develop restoration projects, outreach materials to the community, and continually engaging new members with a variety of experience, the Coalition has gained funding for projects to restore the health of the creek.

The next step is to measure the success of projects on a physical level; that is, are steelhead returning? Is water quality improving? Is the creek still able to maintain flood control capacity? Are other species returning to the creek? While water quality can be measured by comparing the results of sampling to regional Basin Plan and/or federal standards, what is considered successful in terms of the steelhead population in the watershed? Does the Coalition claim success when the first steelhead makes it to the headwaters and successfully spawns? How can a number be assigned to the steelhead population when historical levels are unknown?

Adaptive management, which allows for changes to occur in the management of an ecosystem is the key for the successful restoration of the Carpinteria Creek Watershed. While the Coalition may have long term goals and objectives for managing and monitoring the watershed's health, it must remain flexible due to the presence of environmental factors like fires, El Niño events, earthquakes and even a potential tsunami. Another major flood can change the morphology of the creek and peoples' attitudes towards restoration in general. While peoples' attitudes are developing, in regard to creek restoration and the Coalition, the Coalition needs to begin implementing projects. The public, especially the private landowner public needs to see that the Coalition can complete a project. Completing one project successfully will open opportunities for many more.