

Coastal San Luis RCD Central Coast Watershed



Amount Funded: \$165,977

Additional Funding Obtained to Date: \$1,171,543

Background

There are three active and significant areas within the Central Coast Watershed: Morro Bay, Arroyo Grande Creek and San Luis Obispo Creek. These water bodies suffer to a greater or lesser extent from pathogens, siltation, metals, nutrients, and turbidity. A combination of agricultural practices, resource extraction, land disposal, and urban runoff contribute to these conditions.

Benefits to the Watershed

- ◆ Worked with landowners to develop 29 conservation plans. The plans include 63 BMPs.
- ◆ Fifty-four BMPs have been installed during the second year of the grant. These on-the-ground projects help reduce sedimentation, runoff-borne pollutants, and increased percolation.
- ◆ Coordinated the completion and distribution of the “Arroyo Grande Creek Erosion, Sedimentation and Flooding Alternatives Study.” This study included analysis of hydrology and hydraulics of Arroyo Grande Creek watershed, identified specific projects both within the AG Creek flood control channel and throughout the watershed. The projects would increase flood protection, decrease erosion and sedimentation, and enhance the floodplain.
- ◆ Assisted partners in developing new stream protection policies and ordinances for the City of Arroyo Grande.
- ◆ Secured additional funding and expanded the envirothon program for conservation education.
- ◆ Worked with partners to begin developing a Permit Coordination Program in partnership with Upper Sanlinas Las Tablas RCD, Cachuma RCD, San Luis Obispo County, Santa Barbara County, NRCS, CDFG, NMFS, NOAA, SCC, RWQCB, and Army Corps of Engineers. The Permit Coordination Program is being developed by Sustainable Conservation to develop a set of BMPs that can be submitted and approved by all regulatory agencies under a streamlined process. This process will reduce the amount of time and cost of obtaining permits from multiple regulatory agencies for conservation projects that restore and enhance watersheds.
- ◆ Began to seek funding for the development of a Morro Creek Watershed Management Plan.
- ◆ Submitted a grant proposal to the SWRCB to fund \$1.5 million in Arroyo Grande Creek and Meadow Creek watershed projects. Projects included sediment control, water quality monitoring, and land acquisition for stream and floodplain restoration. The concept proposal was selected to move onto the full application phase.

- ◆ Participated in a working group for the City of Arroyo Grande that is which assisting the City in developing new stream protection policies and ordinances, setting storm runoff standards, and incorporating low impact development standards.

Benefits to CALFED Program

Watershed Management – In support of the Watershed Program goal of improving coordination, collaboration, and assistance among government agencies, other organizations and local watershed groups; the coordinator:

- Held several meetings and watershed tours to assist with development of an RCD Permit Coordination Program with the CSLRCD, Upper Salinas Las Tablas RCD, and Cachuma RCD. Program participants include representatives from the three RCDs, NRCS, San Luis Obispo and Santa Barbara County Planning and Agricultural Commissioners Offices, CDFG, NMFS, NOAA, SCC, RWQCB, and ACOE. Sustainable Conservation is developing the Permit Coordination Program with grant funding from the SCC and the RWQCB. The goal of the program is to develop a set of BMPs that can be pre-approved by all regulatory agencies under a streamlined process. The process will greatly reduce the amount of time and cost of obtaining permits for conservation projects that restore and enhance watersheds.
- Held a meeting to revive the Pikeminnow Task Force. The meeting was attended by representatives from CCC, Hydro-Terra and the CSLRCD. The group supported the RCD's grant proposal to NOAA for the eradication of non-native fish species in Chorro Reservoir. This is the first phase of a multi-step plan to eradicate pike minnow from the watershed.
- Collaborated with the SLO County Counsel, CDGG, SLO County Code Enforcement, CCRWQCB, NRCS and the property owner of a WRP easement to develop and implement a restoration plan for the easement on Warden Creek.
- Conducted a tour of the CSLRCD sediment capture project for MBNEP and CCRWQCB members and staff. The tour highlighted the long-term and continuing success of sediment capture projects.
- Organized and participated in a Red-Legged Frog Biological Monitoring Workshop. A total of 25 participants attended the workshop. The participants are now qualified to monitor Red-Legged Frogs at conservation project sites. Trained monitors will allow conservation projects to be implemented more quickly and at reduced cost in watersheds throughout the state.
- Organized two public events to review the draft final Arroyo Grande Erosion, Sedimentation and Flood Alternatives Study. A town hall meeting was held in Arroyo Grande to discuss the study, and was attended by 58 community members. The meeting was broadcast on the local public access television channel. A Technical Advisory Team meeting provided feedback for integration into the final study. The Technical Advisory Team meeting was attended by representatives of the SWRCB, the NRCS, the USFWS, NOAA/NMFS, the County of San Luis Obispo, the City of Arroyo Grande, the Oceano Community Services District, the Flood Control Zone 1/1A Advisory Committee, Central Coast Salmon Enhancement, California State Dept. Parks & Rec., the California Coastal Conservancy, the South San Luis Sanitation District, and CDFG. The results of the Alternatives Study will provide the basis for implementation of watershed-wide erosion and sediment control measures, as well as for the long-term management of the AG Creek flood control channel.

- Hosted two tours of Arroyo Grande Creek flood control channel for representatives of the Regional Water Quality Control Board and the U.S. Fish and Wildlife Service, the City of Arroyo Grande, Central Coast Salmon Enhancement, Flood Control District Zone 1/1A Advisory Committee, and the NRCS.
- Collaborated with the Department of Water Resources to set up a Flood Fight Training course in the South County. The course will focus on construction of flood control structures using sandbags.

The coordinator supports the Watershed Program goal of developing watershed monitoring and assessment protocols by participating in workshops and that addressed water quality monitoring and quality assurance programs in the Morro Bay Watershed. The goal of these meetings and workshops was to improve coordination of monitoring efforts, improve water quality data, and data analysis. The information will allow watershed stakeholders and agencies to more accurately assess the effectiveness of BMPs at reducing pollutant loads and meeting TMDL goals for central coast watersheds.

The coordinator also supported the Watershed Programs educational goals by:

- Meeting with the MBNEP education coordinator to develop a plan and identify funding for the production of a video/TV-spot to promote conservation, environmental stewardship, and awareness in Los Osos and the Morro Bay Watershed.
- Presenting at the Farm Water Quality workshop and field tour for 45 orchard growers. There were over 50 participants at the workshop/field tour including landowners, RCD staff, NRCS staff, CCRWQCB staff, Cachuma RCD staff, and UC Cooperative extension staff. Landowners learned how to conduct water quality monitoring programs on their properties, interpret test results, and evaluate BMP effectiveness in improving water quality.
- Giving a presentation at the Farm Water Quality Short Course for row crops. Landowners were given information on financial and technical resources available to assist in implementation of water quality and erosion control BMPs. The meeting was attended by 30 local growers.

Water Use Efficiency Program – The coordinator supported the goals of the Water Use Efficiency Program by completing the following activities:

- Helped secure additional funding for the Mobile Irrigation Lab. The success of the Farm Water Quality Program workshops increased the demand for water audits of irrigation systems. Increased funding for the Mobile Lab will provide landowners with objective irrigation system management tools.
- Helped landowners develop a total of 51 conservation plans, which included 98 BMPs. Forty-eight BMPs were installed in the Morro Bay Watershed. The estimated sediment reduction by the installed BMPs = 986 tons tons/year. Seven BMPs' were installed in the Arroyo Grande Watershed. These installed BMPs increased water use efficiency by reducing sedimentation, non-point source pollution, and improving the overall quality of water in the watersheds.

Drinking Water Quality – In support of the Drinking Water Quality program goal of providing good quality water for all beneficial uses, the coordinator:

- Helped implement three off-creek water systems and riparian fencing projects in the Chorro Valley watershed. The projects will reduce nutrient and bacterial inputs to the watershed. Additionally, the coordinator helped implement a large ranch road improvement project in the Los Osos Valley watershed. This project will reduce erosion in the upper watershed of Los Osos Creek and improve steelhead spawning habitat.
- The draft final Arroyo Grande Creek Watershed Erosion, Sedimentation and Flood Alternatives Study was completed and reviewed by the public, as well as state and local agencies. The study supports the Drinking Water Quality program goals by addressing the need to protect the Arroyo Grande wastewater treatment plant from flooding, which would cause ground water and surface water contamination.

Performance Measures

Watershed Goal: Improve water quality, water use efficiency, ecosystem quality, and soil conservation through out the watershed.

Objective #1: Provide assistance for implementation of conservation practices that improve water use efficiency, water quality, and ecosystem quality throughout the district.

Performance Measure: Number of conservation plans developed. Number of Best Management Practices (BMP) installed. Estimate of nutrient input reductions and sediment reduction produced by installed BMP. Estimate nutrient input reductions using watershed nutrient TMDLs. Estimate sediment reduction using the Revised Universal Soil Loss Equation (RUSLE) version 1.05.

Progress:

With the coordinators assistance:

- Fifty-one (51) conservation plans have been developed including 98 BMPs.
- The coordinator has helped to install 78 BMPs since the start of the grant.
- The estimated sediment reduction produced by installed BMPs since the start of the grant is 2,688 tons/year.
- Thirty-nine (39) projects have been photo-documented.

Objective #2: Educate landowners and other watershed stakeholders about the financial and technical services available to improve water quality, water quantity, and soil conditions.

Performance Measure: Number of stakeholders that participate in workshops and tailgate meetings. Number of water audits completed.

- Three workshops have been held. Over 22 stakeholders attended these workshops.
- Twenty-four (24) water audits have been completed since the beginning of the grant.

Objective #3: Facilitate and improve coordination, collaboration, and assistance among government agencies, other organizations, and local watershed residents.

Performance Measure: Number of press releases, newspaper articles, magazine articles, tour agendas, attendance lists, and presentation outlines of the coordinator and the RCD.

- Eighteen (18) newspaper press releases have been printed since the start of the grant.
- Twenty-one (21) watershed tours have been conducted.
- The coordinator has attended 109 meetings since the start of the grant to collaborate and share information with a variety of watershed stakeholders.
- The coordinator has helped stakeholders and watershed groups submit 21 grant proposals for watershed improvement projects.



Channel through forest before maintenance work.



Channel after maintenance work.

Colusa County RCD
Upper Cache Watershed
(Sub Watershed Bear Creek)



Amount Funded: \$127,317

Additional Funding Obtained to Date: \$185,114

Background

The 24-mile Bear Creek drainage is a rare aquatic ecosystem that supports four native fishes, western pond turtles, and yellow-legged frogs. It is an important corridor for neotropical migratory birds, and biological inventories have documented 33 other special status plants and animals. The California Unified Watershed Assessment has identified several areas of concern for Bear Creek: non-functioning riparian communities, habitat degradation from non-native species, and impaired water quality.

Benefits to the Watershed

- ◆ Worked with partners to organize a major cleanup in the Sulpher Creek Valley at Wilbur Hot Springs. The clean-up included removal of rocks and refuse including abandoned equipment, car parts, old mining equipment, wood, barbed wire, and more. Over 30 volunteers participated in the clean-up. With the refuse and rocks out of the way, a planned yellow star thistle mowing program can move forward.
- ◆ Collected plant material, supervised propagation and planting crews, and installed over 1000 native plants along two miles of Bear Creek on BLM’s Cache Creek Natural Area where extensive tamarisk removal was completed. This revegetation work will help prevent the return of tamarisk and enhance wildlife habitat.
- ◆ Supervised planting efforts at Wilbur Hot Springs. Over 500 plants were planted as part of a native plant recovery program.
- ◆ Worked with BLM staff to prepare and submit a grant proposal to DWR for a Bear Creek Watershed Assessment grant. The proposed assessment would include 65,000 acres in the upper Sulpher Creek watershed that are a major source of mercury and sediment in Bear and Lower Cache Creek.



Bear Creek sediment discharge

- ◆ Produced a technical guide for vegetation management in the Sulphur Creek valley. The guide was produced as part of stewardship activities that took place during a 3-day music festival at Wilbur Hot Springs.
- ◆ Worked with partners to design and implement a demonstration erosion control project to reduce sediment in Sulphur Creek and enhance native prairie vegetation.
- ◆ Evaluated the effects of saline water on yellow starthistle suppression and two untested native plants, mugwort and narrow-leaf goldenrod.
- ◆ Worked with the American Land Conservancy to address conservation easement management issues at Wilbur Hot Springs. Issues included unmanaged livestock grazing, soil erosion, mercury, in-stream (Sulphur Creek) headcuts, and invasive plants.
- ◆ Coordinated weed management efforts in the Bear Creek Botanical Management Area as part of an ongoing attempt to eradicate barbed goatgrass and yellow starthistle. The coordinator provided CALTRANS with a comprehensive plant list and project summary to help protect the management area during a new bridge and highway construction project.

Benefits to CALFED Program

Watershed Management – The coordinator completed several activities that improved coordination between stakeholders and agencies, and built the capacity of local stakeholders to address watershed issues. This year the coordinator worked with partners to submit a proposal for a Bear Creek Watershed Assessment, served as a member of BLM’s grazing advisory committee to address management issues on over 10,000 acres of the Cache Creek Nature Area, organized numerous volunteer work events, and meet with key stakeholders to promote land stewardship. The coordinator also worked with stakeholders, including agencies and landowners, to develop an expanded noxious weed program at Wilbur Hot Springs and to evaluate livestock grazing for weed control on BLM land.

Ecosystem Restoration – The coordinator supported several Ecosystem Restoration Program goals. Specifically the coordinator collected plant materials, supervised plant propagation and planting crews, and installed over 1000 native plants along a two-mile stretch of Bear Creek in BLM’s Cache Creek Natural Area. The revegetation work was completed as a follow up to a tamarisk removal effort. The native plants will help prevent the return of the tamarisk. The coordinator also supervised the planting of 500 plants at Wilbur Hot Springs as part of a native plant recovery program.

Science – The coordinator supported the goals of the Science Program by initiating a saline irrigation experiment to evaluate the effects on native grasses and suppression of exotic weeds.

Performance Measures

Watershed Goal #1: Restore native plant communities.

Objective #1: Reduce non-native invasive species (NIS).

Performance Measure: Develop and maintain 10 partnerships to address non-native invasive plants in the watershed.

Progress:

- Helped organize a cleanup at Wilbur Hot Springs to remove rocks and trash in preparation for yellow starthistle control using mowers. Approximately thirty volunteers attended the clean up.
- Received funding for to restore a state-designated Botanical Management Area on a Caltrans right-of-way along Hwy 20.
- Conducted follow-up control work on regrowth of tamarisk and small plants missed from previous herbicide applications.

Objective #2: Promote native plant revegetation program and grazing management as a complement to NIS removal and erosion control

Performance Measure: Plant 4,000 native plant starts on BLM and WHS property & 5) Serve as technical advisor to federal and private landowners for grazing mgt programs.

Progress:

- Collected plant materials for a 2nd round of propagation for BLM revegetation project. Supervised propagation and planting of 1000+ starts.
- Met with NRCS, UCD soil scientists, and a graduate student to monitor plantings. Began assessment of soil conditions along Bear Creek for revegetation work on BLM property.



Volunteers at a Wilbur Hot Springs clean-up event.

Objective #3: Determine value of using naturally occurring saline water for controlling exotic plants and enhancing natives.

Progress:

- Developed saline water test project with NRCS and Wilbur Hot Springs
- Gathered essential baseline data soils, water chemistry, and vegetation data necessary to measure the success of the saline water control project.
- Completed 2 years of irrigation treatments for this experiment. In the process of analyzing data. Wrote up partial results for a Wildlife Conservation Board report.
- Monitored soil moisture levels, salinity, and compared growth response
- Initiated a 2nd experiment on a new site to test the effectiveness of saline water in yellow starthistle suppression. 3 summer irrigations were completed.
- Most of the experiment site was destroyed with the torrential New Year’s flood. However, observations prior to the flood indicated seedling suppression of yellow starthistle and annual grasses.

Watershed Goal #2: Improve hydrologic function and water quality.

Objective # 1: Assemble and develop baseline information for water quality and major soil erosion sites in the watershed.

Progress:

- Met with agency personnel to discuss soil erosion sites in the watershed and develop a watershed-level assessment protocol.
- Worked with UC Davis and NRCS scientists to evaluate scouring and deposition patterns along Bear Creek. The NRCS engineer conducted a channel and floodplain cross section survey using GPS points for topographic mapping. Using this information, a GIS soil and aerial photo map was developed for the lower Bear Creek watershed.
- Prioritized erosion control project sites.

Objective # 2: Increase landowner cooperation and funding to address high-priority soil erosion sites.

Progress:

- Documented and developed demonstration sites that show effective remediation, including grazing management, erosion control structures, and revegetation.
- Worked with BLM staff to develop a grant proposal for a watershed assessment for the entire Bear Creek watershed. The proposal was submitted by BLM to the Department of Water Resources.

Watershed Goal #3: Promote local cooperation within the watershed and expand outreach.

Objective # 1: Maintain existing partnerships and develop new cooperative programs.

Progress:

- Obtained an estimated (\$4,750) of in-kind labor from the Konocti Conservation Crew for three days of work with a 15-member crew and their supervisor.
- Organized and participated in a cleanup event with 30 people, providing a total of 120 volunteer hours, in the Sulphur Creek valley.

Objective #2: Increase Outreach

Progress:

- Produced a sequence of photos to show Wilbur Hot Springs ownership an example of sediment discharge into Sulphur Creek during a storm event.
- Conducted a meeting with a fluvial geo-morphologist to discuss remediation protocol for headcut along a Sulphur Creek tributary.
- Attended a 2-week Watershed Stewardship Seminar sponsored by CALFED with Dennis Bowker.

Contra Costa Public Works Department

San Joaquin Delta Watershed



Amount Funded: \$215,959

Additional Funding Obtained to Date: \$399,705

Background

This is one of the fastest urbanizing watersheds in California. Consequently, ever-increasing amounts of polluted run-off is entering the Delta – the water supply for over 20 million people. The watershed is also home to numerous unique special status terrestrial plant and animal species. Agriculture is an important element of the landscape, economy and cultural heritage. Recognizing the need for cooperation, Contra Costa County is implementing a new Stormwater Management Plan. However, much more needs to be done to address critical issues such as flooding, erosion, and diminishing habitat.

Benefits to the Watershed

- ◆ Obtained \$313,766 in additional funding through the State Water Resources Control Board's Agricultural Water Quality Grant Program (AWQGP). The funding will be used to implement best management practices (BMPs) on selected agricultural fields to reduce the environmental impact of runoff from irrigated agriculture.
- ◆ Developed working relationships with five of the major row crop growers in east Contra Costa County. Two of the growers have applied for financial assistance through the NRCS Environmental Quality Incentives Program to implement BMPs. The projects will involve almost 400 acres.
- ◆ Six projects, on 375 acres, are being developed as part of the AWQGP grant.
- ◆ Convened 12 monthly meetings of the new grassroots community group, the Friends of Marsh Creek Watershed (FOMCW).
- ◆ Organized and coordinated 14 volunteer events in the Marsh Creek Watershed, which involved a total of 150 volunteer participants.
- ◆ Worked with Friends of Marsh Creek Watershed, East Bay Regional Park District, Cub Scouts, Boy Scouts, Girl Scouts, Save the Bay, Contra Costa RCD, and Contra Costa County



Tailwater Pond with Wildlife Habitat

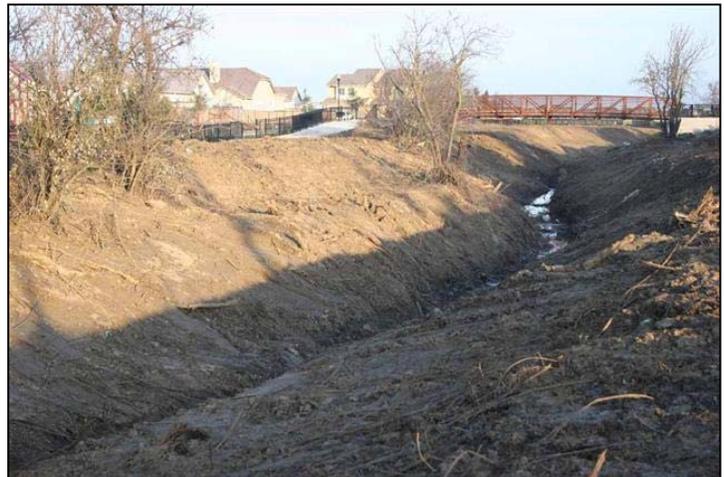
to coordinate five monitoring events. Two events used Global Positioning System to monitor vegetation, species habitat, and water quality. Four events monitored water quality using benthic macroinvertebrates.

- ◆ Worked with partners to organize five events to remove invasive plants and plant native plants.
- ◆ Conducted presentations, staffed information tables, and contacted over 900 residents in the Marsh Creek Watershed to inform watershed stakeholders about watershed programs and events.
- ◆ Wrote and submitted approximately \$420,000 in grant proposals to obtain funding for restoration and protection of the Marsh Creek Watershed.
- ◆ Coordinated six meetings with the Contra Costa County Flood Control and Water Conservation District, City of Brentwood staff, and Pinn Brothers and Pulte Homes developers to incorporate riparian restoration projects into developments adjacent to Marsh Creek in the City of Brentwood.
- ◆ Coordinated a Marsh Creek Watershed clean up day. Over 5,000 tons of trash was removed from the creek channel. The clean up event involved over 260 community volunteers.
- ◆ Worked with the City of Brentwood, City of Oakley, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Game to monitor water quality after the Brentwood ethanol spill and the Marsh Creek fish kill.

Benefits to CALFED Program

Watershed Management – The coordinator completed several tasks to support the Watershed Program goal of encouraging collaboration between agencies, stakeholders, watershed groups, and others. The coordinator worked with the community and local agency on a watershed level by:

- Notifying approximately 200 residents about an East County Symposium, and organizing FOMCW and Dutch Slough Wetland Restoration Project tables at East County Symposium.
- Facilitating monthly FOMCW meetings to protect and restore the Marsh Creek Watershed.
- Recruiting and organizing over 40 volunteers to monitor salmon, vegetation, species habitat and water quality.
- Helping community and local agencies to recruit and organize more than 260 volunteers to remove over 5,000 tons of trash from Marsh Creek.
- Helping organize watershed events such as two activity days to remove invasive vegetation in Creekside Park in Brentwood, and two water quality monitoring programs to sample benthic macroinvertebrates.



Sand Creek Vegetation Removal Project

Ecosystem Restoration – The coordinator supported Ecosystem Restoration Program goals by:

- Working to increase habitat for threatened species such as the California red-legged frog, rehabilitate the natural hydrology, stream channel and floodplain, and protect and restore functional riparian habitats. The coordinator held three meetings with Pulte Homes developers, the City of Brentwood and the Contra Costa County Flood Control and Water Conservation District to plan the restoration of hundreds of linear feet of riparian habitat along Marsh Creek in downtown Brentwood, one of the fastest growing cities in California.
- Organizing and implementing two invasive plant removal volunteer events, and one volunteer event to plant native plants adjacent to the Dutch Slough Wetlands Restoration Project with over 30 community members.
- Working with an agricultural producer to apply for funding to improve wildlife habitat by establishing a hedgerow of native vegetation, which will help reduce the impacts of non-native plant species.
- Organizing three watershed events to collect seeds and propagate plants that will be used to restore native riparian vegetation in the Marsh Creek Watershed.
- Applying for two grants to remove a fish barrier on Marsh Creek to allow migrating Chinook salmon and steelhead trout to access 7 miles of additional spawning habitat.

Drinking Water Quality – In support of Drinking Water Quality program goals the coordinator:

- Encouraged and helped agricultural producers to install BMPs such as drip irrigation and tailwater return systems. These BMPs will reduce the quantity and improve the quality of irrigation tailwater flowing to the Delta, a source of drinking water for 23 million people.
- Worked with local governments and community groups to monitor water quality by organizing two events to monitor benthic macroinvertebrates.

Science – In support of the Science Program, the coordinator:

Worked with Contra Costa County to integrate unbiased, relevant science into benthic macroinvertebrates monitoring data collection programs in the Marsh Creek Watershed.

Performance Measures

Watershed Goal 1: Improve the quality of aquatic habitats in the lower watershed and Delta through an integrated program of urban stormwater management and volunteer participation in habitat restoration.

Objective 1: Engage local residents in the planning, implementation, and monitoring of ecosystem restoration, habitat enhancement, and water quality improvement projects.

Performance Measure: # of volunteers who participate in a ½ day watershed program; particularly macro invertebrate sampling; consistent quarterly sampling on Marsh, Kellogg, and Brushy Creek; number of plants propagated and planted.

Progress:

- Approximately 1,150 volunteers have participated in ½ day watershed programs:
- 350 volunteers participated in the Brentwood Marsh Creek Clean up event on 9/18/04.
- 20 volunteers participated in community salmon monitoring event on 11/21/04.
- 16 volunteers participated in community salmon monitoring event on 12/19/04.



Volunteers at work during an invasive species removal day

- 25 high school student volunteers participated in Freedom High School's First Annual Career Fair on 2/16/05.
- 12 volunteers participated in Gardening for Wildlife Workshop on 4/3/05 and 4/17/05.
- 20 volunteers participated in FOMCW Earth Day mowing and mulching project on 4/24/05
- 25 volunteers participated in Oakley Science Week MESA Fair on 4/29/05.
- 50 volunteers participated in Oakley Science Week Oakley Community Science Fair 4/30/05.
- 75 volunteers participated in Oakley Science Week Dutch Slough Day 5/1/05.
- 70 volunteers participated in Oakley Marsh Creek Clean up event on 5/21/05.
- 5 volunteers participated in invasive species suppression mulching project on 6/18/05.
- 8 volunteers participated in seed collection event with FOMCW and California Native Plant Society on 9/13/05.
- 300 volunteers participated in Brentwood Marsh Creek Clean up event on 9/17/05.
- 15 volunteers participated in GPS training and monitoring event on 10/23/05.
- 6 volunteers participated in GPS monitoring event on 11/5/05.
- 25 Cub Scout volunteers participated in community salmon monitoring outing on 11/16/05.
- 5 volunteers participated in community salmon monitoring outing on 11/13/05.
- 10 volunteers participated in community salmon monitoring outing on 11/28/05.
- 5 volunteers participated in invasive plant removal event on 3/18/06.
- 20 volunteers participated in invasive plant removal event on 3/19/06.
- 10 volunteers participated in native plant planting event on 3/26/06.
- 75 volunteers participated in East County Symposium on 3/30/06.
- Approximately 40 volunteers have participated in macro invertebrate sampling on Marsh Creek:
- 30 student volunteers from Freedom High School chemistry class monitored water quality including benthic macroinvertebrates on 3/5/05.

- 4 volunteers participated in Contra Costa County benthic macroinvertebrate training on 3/19/05.
- 3 volunteers participated in benthic macroinvertebrate sampling event on 4/1/05.
- 2 volunteers participated in benthic macroinvertebrate sampling event on 4/9/05.
- 3 volunteers participated in Contra Costa County training and refresher courses on benthic macroinvertebrate monitoring on 3/25/06 and 3/26/06.
- Approximately 180 plants were propagated and planted at the mouth of Marsh Creek adjacent to the Dutch Slough Wetland Restoration Project at a volunteer planting event on 3/26/06.

Objective 2: Incorporate stormwater reduction and water quality improvement BMPs into the plan, review, permitting, and construction of new development and into the retrofit of existing urban developments.

Performance Measure: # of BMPs incorporated into new permits and developments; # developments using innovative BMPs such as pervious pavements and grassy swales. Long-term measure: macro invertebrate diversity and pollution intolerance on the Index of Biological Integrity (IBI)

Progress:

- Organized over 15 meetings with Contra Costa County Flood Control and Water Conservation District, Pinn Brothers developers, Pulte Homes developers, City of Brentwood Department of Engineering, Department of Parks and Recreation and Planning Department, and East Bay Regional Park District to discuss incorporation of BMPs into new permits and developments along Marsh Creek.
- Incorporated 3 BMPs into new Pinn Brothers subdivision development along Marsh Creek including constructed wetlands, vegetated swales and vegetated buffer strips.
- 2 subdivision developments are considering using innovative BMPs along Marsh Creek:
 - 77.5-acre Marseilles development constructed by Pinn Brothers.
 - 37-acre Carmel Estates development constructed by Pulte Homes.
- Coordinated with Contra Costa County to measure macro invertebrate diversity and pollution intolerance in the Marsh Creek Watershed using data collected by volunteers and consultants on Marsh Creek and in other creeks in Contra Costa County. All County and volunteer monitoring efforts are done in coordination with bioassessment efforts conducted by the State of California's Surface Water Ambient Monitoring Program (SWAMP) This will result in a regional dataset to allow bioassessment data to be compared throughout the San Francisco Bay region.

Watershed Goal #2: Improve the quality of water flowing into the Delta through an integrated program of agricultural tailwater and run-off management, water conservation, and wildlife friendly agriculture.

Objective 1: Implement water conservation measures and other BMPs to reduce the quantity of polluted tailwater flowing from agricultural fields to the Delta.

Performance Measure: # of landowners who implement BMPs; # of acres with BMPs implemented. Long term: reduction in TDS; increase in macro invertebrate richness and improvement in index of biological integrity.

Progress:

- With assistance or encouragement from the coordinator, five landowners have pursued either the NRCS EQIP incentive program or the AWQGP incentive program, and have developed plans to implement BMPs that will reduce the quantity of polluted tailwater discharged from their fields.
- The total number of acres with planned BMPs is approximately 775.
- Currently planned BMPs, including installing a drip irrigation and a tailwater return system, will have a long-term reduction in TDS. The quantity of tailwater and associated sediment discharged from the agricultural fields will be reduced.



Agricultural field identified for potential BMP implementation

Objective 2: Improve the quality of tailwater and stormwater discharge flowing to the Delta from agricultural fields.

Performance Measure: # of landowners who implement BMPs; # of acres with BMPs implemented. Long term: reduction in TDS; increase in macro invertebrate richness and improvement in index of biological integrity.

Progress:

- Worked with the CCWD and the NRCS on the Veale-Byron Tract, Rock Slough drainage management project. NRCS surveyed Veale Tract for a potential land-leveling project, which will assist with the implementation of the pump relocation to direct agricultural tail water away from Rock Slough and the CCWD intake.
- Conducted the first Technical Advisory Committee meeting for the Agricultural Water Quality Grant Program grant to solicit advice on potential project sites and the evaluation and selection of BMPs in east Contra Costa County.
- Worked with district conservationist, CCWD, CCFCWCD, RD 800, and irrigation districts to identify type and priority location of on farm BMPs that would best contribute to their collective water quality objectives. Implementing drip irrigation systems and constructing

tailwater return systems have been identified as BMPs that would best contribute to the water quality objectives of RD 800 and CCWD.

- Identified and publicized the NRCS EQIP and the RCD's AWQGP grant as the two incentive programs that are the best source of funding for implementing BMPs.
- Identified six parcels to implement projects under the AWQGP. The proposed project activities include conversion from furrow-irrigated tomatoes to drip irrigated tomatoes and the construction of a tailwater return system for furrow irrigated sweet corn.

Objective 3: Implement BMPs that improve the wildlife value of irrigated agriculture and reduce stormwater runoff.

Performance Measure: # of landowners who implement BMPs; # of acres with BMPs implemented. Long term: reduction in TDS; increase in macro invertebrate richness and improvement in index of biological integrity.

Progress:

Worked with a landowner to apply for funding through the Contra Costa County Fish and Wildlife Committee to continue establishing a hedgerow with native plants to increase wildlife habitat at the edges of an orchard. Although the landowner was in the process of selling the property, the buyer expressed interest in the project. However, after submitting the application to the Wildlife Committee, the new landowner decided not to pursue the project.

Contra Costa RCD Suisun Bay Watershed



Amount Funded: \$188,730

Additional Funding Obtained to Date: \$123,891

Background

The Suisun Bay watershed includes rangeland, protected wetlands, state and regional parks, and urban areas. Invasive non-native plants are a widespread problem in the watershed, decreasing upland and riparian habitat value. Trash and illegal dumping impair creeks throughout the region, and several creeks also have serious erosion and sedimentation problems. Water quality is also a significant concern with the California Unified Watershed Assessment assigning the watershed a Category 1 priority.

Benefits to the Watershed

- ◆ Coordinated numerous workdays in cooperation with several partners. Work days included six planting days at the Sky Ranch Restoration Project where 15 species of native plants were planted, 12 invasive weed removal events at Strentzel meadow where weeds were removed from 1000 feet of riparian channel and surrounding meadow area, three planting events at Strentzel meadow where seven species of native plants and seeds were planted, a weed removal day at the Dow Wetlands where the volunteer group Kids for the Bay removed invasive weeds and applied mulch around 1,000 square feet of upland area surrounding the pond, and a planting event at Dow wetlands where five species of native grasses and seed were planted.
- ◆ Helped partners develop grant proposals for watershed improvement projects. A \$400,000 proposal was submitted to CALFED and a \$2.1 million proposal was submitted to the State Water Board. The proposals include funding to continue the watershed coordinator position.
- ◆ Coordinated four planting days at local restoration sites with cooperators.
- ◆ Obtained \$24,000 in funding to support water quality monitoring efforts in the watershed.
- ◆ Submitted a grant proposal for \$63,795 to start a volunteer-based Watershed Nursery in the Kirker Creek watershed. The nursery will support local restoration efforts.
- ◆ Participated in two regional outreach events and presented awards to two volunteers recognized for their involvement in stewardship and restoration activities.



Watershed volunteer Jamie Menasco receives award for her involvement in stewardship activities.

- ◆ Selected a contractor to conduct a geomorphic survey of the AVCC project area and collaborated on \$2.5 million in grant proposals that includes funds to design and implement the restoration project.
- ◆ Produced and distributed *Cross Currents*, a regional newsletter for watershed stewards.
- ◆ Coordinated and participated in four creek clean up events. The clean up days resulted in over 180 volunteers improving $\frac{3}{4}$ mile of creek channel, removing 9 yards of trash, and removing 5 yards of recyclables. The clean up events took place on Kirker and Alhambra Creeks.

Benefits to CALFED Program

Watershed Management – The coordinator completed several activities that supported the CALFED Watershed Programs goals of: (1) Facilitating and improving collaboration among agencies, organizations, and local watershed groups. (2) Supporting education and outreach. (3) Integrating the Watershed Program with other CALFED program elements, and (4) Implement a strategy that will ensure support and long-term sustainability of local watershed activities.

1) To support collaboration, the coordinator maintained a list of projects in each watershed; submitted a funding request for \$63,795 to support community-based restoration efforts and collaborated with stakeholders groups to develop \$2.5 million in funding requests; conducted regular website updates to help watershed groups and organizations stay informed and connected; and attended meetings of regional conservation and watershed groups to encourage collaboration among watershed interests.

2) To support education and outreach the coordinator recruited schools to participate in four restoration and stewardship events; participated in meetings with schools to incorporate restoration activities into school curriculum; worked with community college students to conduct GIS mapping in Kirker Creek; held educational workshops for the community; and provided support for community led restoration efforts that will continue beyond the life of this grant.

3) The coordinator encouraged the integration of the Watershed Program with other CALFED program elements by carrying out actions that supported Ecosystem Restoration Program elements and informing cooperators about the goals of other CALFED program elements.

4) Finally, the coordinator began implementing a strategy that will ensure support and long-term sustainability of local watershed activities. The coordinator collaborated on funding requests for \$2.5 million that include continued funding for the watershed coordinator position after the end of this grant.

Ecosystem Restoration – The coordinator worked with partners to conduct native planting events at Strentzel Meadow, Dow Wetlands, and Sky Ranch. The coordinator also worked with partners to conduct a cleanup at Kirker Creek. In addition, the coordinator conducted several invasive species removal days at Strentzel Meadow and Dow Wetlands.

Performance Measure Progress

Goal: Restore habitat and increase stewardship capacity through community-based watershed programs.

Objective 1: Facilitate community involvement in current and planned restoration and stewardship activities in the Kirker and Alhambra Creek sub-watersheds.

Performance Measure: Volunteers participate in an average of three restoration activities and two cleanups per year in each sub-watershed.

Progress:

- Maintained an updated list of existing and planned watershed projects in the watershed.
- Worked with cooperators to coordinate five creek cleanups since the beginning of the grant period.
- Coordinated 31 invasive plant removal workdays.
- Coordinated 21 plant propagation and revegetation events.
- Submitted 10 funding proposals to obtain funding for watershed stewardship activities.
- Worked with a variety of school cooperators to incorporate restoration activities into regular school programs.



Volunteers at work during a planting event at Sky Ranch

Objective 2: Promote and facilitate participation, coordination, and collaboration among organizations, agencies, landowners, residents, and other stakeholders in the Kirker and Alhambra Creek subwatersheds.

Performance Measure: Promote and facilitate participation, coordination and collaboration among organizations, agencies, landowners, residents, and other stakeholders in the Kirker and Alhambra Creek sub-watersheds.

Progress:

- Facilitated communication between watershed group members.
- Held 15 watershed outreach events.
- Kept stakeholders, agency representatives, watershed groups and others informed by updating the website on a regular basis.

Objective 3: Act as a resource and point of contact for community groups concerned with creek and watershed health within the HUC.

Performance Measure: Greater awareness of watershed projects and activities in HUC as documented by survey.

Progress:

- Produced and distributed three newsletters to educate and keep stakeholders informed about activities in the watershed.
- Attended regular monthly Contra Costa watershed group meetings to provide information and obtain information about activities taking place in the watershed.

Objective 4: Seek sources of funding that will ensure continued watershed coordinator support within the HUC.

Performance Measure: Grant proposal and partnering requests completed.

Progress:

- The coordinator collaborated with partners to submit two grant proposals.
- The coordinator developed new partnerships with UC Berkeley, Kids for the Bay, and the Alhambra Valley Creek Coalition since the beginning of the grant period.

Deer Creek Watershed Conservancy

Mill-Big Chico Watershed



Amount Funded: \$192,099

Additional Funding Obtained to Date: \$839,320

Background

Deer Creek is a pristine watershed that possesses one of California's few remaining populations of wild Spring-run Chinook salmon. In the southern portion of the watershed, farmers grow a variety of crops. Both wildlife and agriculture need water to survive and thrive. Consequently, water management is absolutely critical and requires a comprehensive, collaborative approach. Changes in land use contribute to erosion and runoff. The watershed is characterized by a diversity of natural resources and competing stakeholder interests. As the population increases, so will the challenges.

Benefits to the Watershed

- ◆ Provided coordination and communication among key stakeholders, private landowners, scientific and technical advisors, local, state, and federal resource managers, and other organizations associated with the Deer Creek Conservancy landscape restoration projects.
- ◆ Worked with partners to get the Flood Plan project back on track. The project is a significant benchmark for Deer Creek ecosystem restoration and is key to meeting CALFED objectives.
- ◆ Initiated and developed a non-point source monitoring program for the upper watershed. The monitoring program is providing important data to help watershed stakeholders understand the water quality status of the watershed.
- ◆ Managed the fiscal aspects for the two large grant projects. The coordinators contributions allow the projects to move forward with accountability and transparency.
- ◆ Provided a central point of contact for both upper and lower watershed stakeholders. The coordinator is key to helping the upper and lower watershed groups exchange information about projects and activities within the larger watershed.
- ◆ Provided educational presentations about the watershed to local schools.
- ◆ Assisted agency representatives in an administrative capacity to support their time and efforts in making valuable contributions to the above-mentioned watershed projects.



High Flows in Deer Creek

- ◆ Assisted in developing and expanding a watershed-fisheries based environmental education program in the school district.
- ◆ Completed and submitted permit applications to the ACOE, DFG, SWRCB for the Cone-Kimball fish ladder project. The project will support the maintenance and enhancement of the aquatic system within the Deer Creek Watershed.
- ◆ Coordinated and facilitated a public workshop for local stakeholders to discuss and present information on watershed issues. The workshop educated stakeholders on issues including water quality, fisheries, and Deer Creek Watershed Conservancy projects throughout the watershed. The workshop also included a discussion about the Agricultural Waiver Program and the Deer Creek Water Exchange Program.
- ◆ Worked with the DCC Board of Directors and other agency personnel to obtain additional data that will be integrated into the WMP/WMS.
- ◆ Recruited new members for the Technical Advisory Committee.
- ◆ Coordinated monthly board meetings, distributed board agendas and packets, and distributed meeting minutes.

Benefits to CALFED Program

Watershed Management – In support of Watershed Management program goals the coordinator initiated a non-point source monitoring program in the upper watershed and established a multi-disciplinary TAC to guide the Conservancy’s erosion control project, ecosystem restoration projects, and flood control project in the lower watershed.

Ecosystem Restoration – Starting August 24, 2006 the conservancy will begin work to complete a CALFED Ecosystem Restoration program directed action. The Deer Creek Directed Action in the CALFED Record of Decision focuses on key ecosystem restoration activities in the lower reach of the watershed. One of the priority projects is integrating flood control with fisheries restoration.

Science – The Conservancy developed a contract with CALFED to conduct a presentation at the CALFED Science Conference in October 2006 regarding the restoration efforts being conducted on the lower reach of the stream. The data and the scientific approach meet the Science Program framework and standards.

Performance Measures

Watershed Goal: Continue Deer Creek Watershed Conservancy’s role in the ongoing management of the Deer Creek Watershed, utilizing a cooperative, interdisciplinary, multi-species and ecosystem approach.

Objective #1: Updating the Deer Creek Watershed Management Plan and Strategy.

Performance Measure: Completion of an updated Watershed Management Strategy.

Progress: The coordinator completed the following tasks towards the completion of this performance measure:

- Convened a Technical Advisory Council (TAC), comprised of representatives from public agencies and private entities to provide technical input for the Conservancy's flood control and restoration projects.
- Worked with the Board of Directors and partners to obtain data to integrate into the WMP/WMS.
- Worked with partners to review existing watershed assessment and identify data gaps.
- Provided input into community planning efforts such as the Tehama County General Planning process.
- Researched potential funding opportunities and worked with the Board of Directors to develop a funding strategy.

Watershed Goal: Protect and/or enhance the long-term productivity of the Deer Creek aquatic system with special consideration of anadromous fish species.

Objective 1: Maintain and/or improve aquatic ecosystem health within the Deer Creek Watershed.

Performance Measure: Map of riparian habitat and completion of Phase 1 of floodplain feasibility study.

Progress: The coordinator completed the following tasks towards the completion of this performance measure:

- Conducted research on potential funding opportunities to identify and map exotic species affecting the watershed as well as water use efficiency projects.
- Cooperated with CALFED staff to help them complete their audit of the Lower Deer Creek Restoration and Flood Management Feasibility Study.

Watershed Goal: Improve water quality in the Deer Creek watershed.

Objective 1: Reduce nonpoint source pollution entering watershed.

Performance Measure: Identification of primary locations of nonpoint source contaminants in watershed and established plans to reduce impacts to water quality.

Progress: The coordinator completed the following tasks towards the completion of this performance measure:

- Worked with partners and the Conservancy Board of Directors to develop a funding strategy for nonpoint source pollution prevention projects.

Watershed Goal 4: Foster conservation, restoration and sound resource management in the Deer Creek Watershed, while respecting and protecting private property rights and public resources

Objective 1: Encourage good land stewardship practices through education, research and public outreach

Performance Measure: Completion and implementation of plans to address Safe Harbor, oak management, range, and fire.

Progress: The coordinator completed the following tasks towards the completion of this performance measure:

- Facilitated the implementation of the Conservancy's rangeland grant.
- Obtained information to begin developing an Oak Woodlands Habitat Strategy.
- WC worked with the Board of Directors to coordinate and facilitate the 2005 Annual Meeting/Public Workshop.

Watershed Goal 5: Beneficial interactions of agencies, organizations and individuals involved with the management of Deer Creek Watershed.

Objective 1: Improve the communication and cooperation among agencies and organizations that are directly involved with the management of the Deer Creek Watershed and surrounding area

Performance Measure: Increased participation in Deer Creek Watershed Conservancy by 25%.

Progress: The coordinator completed the following tasks towards reaching this performance measure:

- Recruited a Nature Conservancy staff member to serve on the Technical Advisory Committee.
- The WC coordinated monthly board meetings, distributed board agendas, and circulated meeting minutes.
- Worked with members of the TAC/WAC to make final revisions to the 2004 Annual Report and distributed it to stakeholders.
- Met with Mill Creek Conservancy to discuss opportunities for collaboration.

Watershed Goal 6: Acknowledge and actively retain the important role of natural resource parameter monitoring in the Deer Creek watershed.

Objective 1: Develop and coordinate a long term monitoring program that addresses key watershed conditions.

Performance Measure: Completion of monitoring plan.

Progress: The coordinator completed the following tasks towards reaching this performance measure:

- Created a TAC for Phase II and III of the Deer Creek Erosion Control Project. The TAC will work with DCWC and the USFS to develop a QAPP and coordinated monitoring plan.

- Met with USFS and SWRCB agency reps to plan Phase III of the erosion control project.
- Collaborated with DWR staff on Deer Creek monitoring efforts. Data will be collected to analyze the sediment load into the Sacramento River.

Earth Resource Foundation

Santa Ana Watershed



Amount Funded: \$178,135

Additional Funding Obtained to Date: \$106,400

Background

The Santa Ana is the largest river in Southern California and has a significant impact on residents throughout the region. Agriculture, industrial, and residential demands for water is intense and will only grow. Due to population growth, water usage will surge by a more than 40% over the next 50 years. In the 1980's the federal government determined that the river posed the greatest risk for flooding west of the Mississippi and initiated several major projects, including the construction of the Seven Oaks Dam. The river is managed to maximize groundwater recharge. Runoff from urban areas, agricultural operations, and industrial facilities pose health hazards for residents. Many areas are extremely urbanized with little open space. Debris and other trash flow toward the ocean, polluting beaches. Some areas along the river have little natural habitat.

Benefits to the Watershed

- ◆ Organized two *Got River?* workshops for community members, watershed agencies, and nonprofit organizations. The workshops were hosted in partnership with the City of Huntington Beach, the Wildlands Conservancy, City of Santa Ana, Trust for Public Land, Latino Health Access, and Metropolitan Water District. The Metropolitan Water District provided a \$3,000 grant for the second workshop.
- ◆ Helped reestablish the Santa Ana and Huntington Beach “Blue Ribbon Task Force”. The coordinator also worked to initiate the development of similar task forces in Newport Beach and Costa Mesa. The Blue Ribbon Task Forces are sponsored by the Wildlands Conservancy, which provides \$5,000 to each city to help develop a city led watershed plan or vision.
- ◆ Coordinated efforts with several Orange Coast River Park nonprofit organizations to strategize land acquisition priorities along the river.
- ◆ Facilitated and participated in workshops and conference calls to outline a \$234.5 million package for programmatic mitigation through the proposed extension of the Orange County Transportation Authority’s Measure M ½ cent sales tax.



Students picking up debris and trash during the Human Broom Beach Cleanup event.

- ◆ Helped organize a field trip to the Orange County Water District for its Water 101 course. The field trip featured a project at the Yorba Regional Park where Orange County is using a satellite “SMART” irrigation system to water the park. This demonstration project will help reduce water usage and urban runoff.
- ◆ Gave a presentation about alternatives for sediment transfer at the Prado Basin using new technology that has already been implemented in the San Gabriel River. Sixty people attended the presentation.
- ◆ Hosted an annual “Human Broom Beach Cleanup” that involved 398 volunteer high school students. The clean up included picking up trash at the beach and planting native plant gardens at three elementary schools in Santa Ana.
- ◆ Organized clean up events as part of the Inner Coastal Cleanup Day and Coastal Cleanup Day, which involved over 1800 volunteers who picked up over 2000 bags of trash.
- ◆ Held a “Working at the Watershed Level” program for 30 at risk girls through “Girls, Inc.”. The summer camp provided watershed education to the girls. As a result of the program, “Girls, Inc.” eliminated the use of polystyrene at their headquarters.
- ◆ Acted as a liaison between the regional water quality control board and the Natural Resources Conservation Service to plan site-level watershed improvements on four private properties in Santiago Canyon. A plan was developed for each of the properties to address severe water quality and erosion problems.
- ◆ Coordinated a meeting with the Natural Resources Conservation Service and Huntington Beach Wetlands Conservancy, which led to the award of \$50,000 in funding for invasive plant removal.
Created and maintained a new Santa Ana River Watershed website which provides users with information about the watershed and activities in the watershed. The site is located at <http://www.santaanariverwatershed.org>.
- ◆ Assisted with the development of a cover story published in the OC Metro magazine Santa Ana River Watershed efforts.

Benefits to CALFED Program

Watershed Management – In support of the watershed program goals, the coordinator: partnered with OCWD to host a Water 101 class; partnered with UCSB for a study of water use in the watershed; hosted a meeting that focused on water transport and sediment; published several articles and held press conferences regarding accomplishments, challenges and upcoming events within the Santa Ana Watershed. Developed a bi-weekly electronic newsletter, which is distributed throughout the community and is available on the Santa Ana River Watershed and Earth Resource Foundation websites.

Water Use Efficiency – To support the goals of the Water Use Efficiency program the coordinator: hosted a Got River? Workshop that focused on water conservation; provided SARWA and members of the public with information about smart timer irrigation; and, held a field trip that highlighted a project at the Yorba Regional Park where a satellite “SMART” irrigation system is used.

Ecosystem Restoration – To help support the Ecosystem Restoration Program goals the coordinator organized numerous watershed cleanups that improved watershed conditions and promoted and organized numerous restoration projects.

Performance Measures

Goal: Improve Watershed Management Plan.

Objective 1: Facilitate the development of a stakeholder-based watershed group for the major local watersheds. The watershed groups will serve as the forums for establishing watershed management goals and pursuing restoration efforts that are supported by the stakeholders.

Performance Measure: Establish and help support active, regularly meeting stakeholder-based watershed groups for each major local watershed including, at a minimum, Santiago Creek.

Progress:

- Established the Santa Ana River Watershed Alliance “SARWA.”
- Created and continually updated website www.santaanariverwatershed.org.
- Held monthly meetings with an average of 25 stakeholders at each meeting.
- Sent e-newsletters regularly to over 265 stakeholders.
- Developed watershed management goals and created matrix that included existing restoration projects, funding possibilities, and volunteer opportunities.

This performance measure is complete but ongoing.

Objective 2: Create opportunities to experience the creek through nature walks, historical sites, planting parties, clean up days, adopt-a -trails, volunteer monitoring, bus tours for elected officials.

Performance Measure: Organize one event per month in the watershed.

Progress:

Created, developed, and promoted monthly meetings, cleanups, nature walks, planting parties, volunteer monitoring and bus tours for elected officials. This performance measure is complete but ongoing.

Objective 3: Building on past studies, develop a stakeholder-supported watershed assessment and restoration plan for the “pilot watershed” Santiago Creek. The plan will establish watershed goals (e.g., reliable water supply, improved water quality, restored ecological habitat, recovered steelhead trout population, etc.), assess watershed conditions and problems, and identify a prioritized set of restoration projects to address existing problems. Stakeholder input and participation through each phase of developing the plan will be facilitated through regular watershed groups meetings.

Performance Measure: Completion of a watershed assessment and restoration plan for the Santiago Creek watershed, and pursuit of funding to complete restoration projects identified in the plan.

Progress:

- Through initial meetings of the Santa Ana River Watershed Alliance, 60% of the work has been completed of identify stakeholders and assessing current conditions, etc.
- Coordinated regular meetings to discuss the assessment and restoration plan.

Goal 2: Ecosystem Restoration/Maintenance Objectives.

Objective 1: Implement measures to restore natural wetlands.

Performance Measure: Identify all potential restoration sites and restore 30% of natural wetlands.

Progress:

- Through email, phone and letters, stakeholders have been contacted to identify potential restoration sites.
- Developed database to record potential sites, specific stakeholders, restoration activities, and funding needed.
- Worked with the Wetlands Recovery Project to setup a task force. The task force is now in the process of finalizing the Santa Ana River Watershed wetlands inventory.

Objective 2: Implement measures to reduce discharge of nutrients, pesticides, herbicides, chlorine, fecal bacteria and trash.

Performance Measure: Identify current percentage of water pollution and reduce it by 40%.

Progress:

- Implemented measures to reduce trash by recruiting and educating citizen volunteers through river, street, school and beach cleanups.
- Provided information to Newport Harbor High School and Girls, Inc. that lead them to eliminate foamed polystyrene from their facilities, thereby reducing the amount of foamed polystyrene entering the Santa Ana River.
- Worked with the Citizens Watershed Monitors of Orange County to gather water quality data that identifies the types of pollution and problems areas in the watershed.
- Encouraged private property owners, schools, and businesses to plant native plants, which help reduce the amount of pesticide, herbicides, and nutrient discharge.

Objective 3: Promote physical preservation and restoration activities.

Performance Measure: Identify, prioritize, and seek funding for projects.

Progress:

Contacted landowners to identify potential restoration sites. The information was recorded in a database developed by the coordinator.

Goal 3: Water Use Efficiency - Reduce dependence on imported water.

Objective 1: Improve water use practices by commercial users.

Performance Measure: Reduce of irrigation water by 30%.

Progress:

- Collaborated with MWDOC to conduct training in satellite irrigation which improves irrigation efficiency.
- Worked with FHBP to disseminate information about water conservation.
- Held a River of Life Conference, which included local businesses and government agencies. Rebate programs, tiered water rates, and other water conservation technologies and strategies were promoted at the conference.
- Worked with the County's Water Efficiency Committee to target county parks.
- Helped selected "practice" sites for water conservation irrigation practices.
- Worked with the County of Orange in its efforts to use smart timers and ETS systems at Yorba Park.
- Worked with MWDOC to increase attendance at the AB 2171 Landscape Committee. The purpose of the committee is to improve water conservation and promote evapo-transpiration controllers.

Objective 2: Improve water use practices by residential users.

Performance Measure: Reduction of water use by 10%.

Progress:

- Distributed materials on rebates for toilets and the landscape certification program.
- Posted water conservation tips on the website.
- Provided educational presentations on the use of native plants in home/business gardens.
- Assisted in creating a native gardening class at Santa Ana Parks.
- Collaborated with UCSB Bren students and the Irvine Ranch Water District to gain support for developing a tiered rate system.
- Recruited volunteers and elementary schools to develop a native plant garden.

Goal 4: Educational/Cooperative Objectives.

Objective 1: Build local capacity for stakeholders in the Santa Ana Watershed. Increase awareness of the creek as a resource and community participation.

Performance Measure: Increase active memberships in the local stakeholder group by 50 members.

Progress:

- Over 250 stakeholders regularly receiving our monthly e-newsletter
- An average of 25 stakeholders attend monthly meetings
- Increased attendance at special meetings such as Got River? Workshops
- On average three new organizations are added per month for volunteer projects. These organizations include churches, youth groups, schools, and environmental organizations.

Objective 2: Raise awareness of water quality and its relation to natural resources through hands on education - water analysis, collection of microorganisms and participation in conservation/preservation activities.

Performance Measure: Involve five new high schools per year in the Earth Resource Foundation “Working at the Watershed Level” program.

Progress:

- Recruited and trained teachers about watersheds and urban refuse.
- Conducted presentations for over 3000 students on the Santa Ana River Watershed. Topics covered included water quality, water conservation, and plastic pollution.
- Five new schools per year are participating in the urban refuse project which consists of collection and analysis of trash “urban refuse” in the Santa Ana Watershed
- Over 1000 students participated in beach and watershed cleanups and restoration projects.
- Recruited students and other volunteers for the Citizens Watershed Monitors of Orange County Coastal Snapshot Day and World Water Monitoring Day.

Objective 3: Promote compatible development along the creek.

Performance Measure: Present proposal to all local land use authorities in the watershed.

Progress:

- Researched existing land use policies in the watershed.
- Conducted research and provided presentations to stakeholders about effective compatible development policies used in other watersheds.

East Merced RCD
Middle San Joaquin-Lower Merc
Lower Stanislaus Watershed



Amount Funded: \$286,957

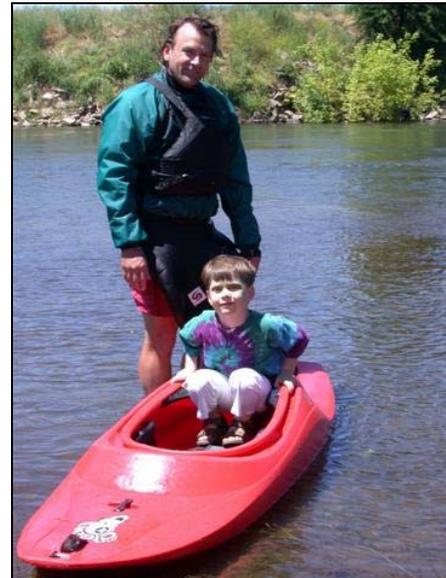
Additional Funding Obtained to Date: \$2,400,300

Background

The lower Merced River and its adjacent floodplains have been heavily altered through channel narrowing, diking, placement of revetments (rip rap), removal of riparian vegetation and gravel mining. The lower Merced is almost entirely privately owned and its predominant land use is agricultural. Issues of concern in the watershed include: urbanization, water quality, habitat degradation, invasive species, and pesticide, herbicide and fertilizer run-off.

Benefits to the Watershed

- ◆ Worked with the Upper Merced watershed coordinator to form the Merced River Alliance. The Alliance conducts environmental education, publishes a semi-annual newsletter, holds joint meetings with upper and lower watershed stakeholders, and is conducting a biological assessment of fish, birds, and macro-invertebrates.
- ◆ Held two landowner field days to demonstrate best management practices that help maintain good water quality.
- ◆ Provided landowner outreach and education as part of the East San Joaquin Water Quality Coalition agricultural waiver program.
- ◆ With coaching from the staff at the nonprofit group, Sustainable Conservation, the coordinator laid the groundwork for a permit coordination program. The coordinator has conducted research and outreach to initiate the coordination program. Known occurrences of listed species have been catalogued, conservation practices have been identified, and contact has been made with all regulatory agencies with jurisdiction in the area. The coordinator is currently working with partners to prepare reports to the agencies to streamline the actual permitting process.
- ◆ Secured additional funding for work in the Merced River watershed through proposition 13.
- ◆ Helped to raise awareness of issues within the watershed thorough publishing the Merced River Alliance newsletter. The newsletter is distributed to 250 stakeholders in the Upper Merced River watershed and 500 stakeholders in the Lower Merced River watershed.



River Fair participants explore the watershed by kayak

Benefits to CALFED Program

Watershed Management – The coordinator’s activities resulted in an increase in coordination, collaboration, and assistance between government agencies, other organizations, and watershed groups. The Merced River Alliance, developed in partnership with the Upper Merced River Watershed Council, brings together stakeholders from the upper and lower Merced River watershed to address common issues on a watershed-wide basis. Activities of the Alliance include a biological survey of fish, birds, and macro-invertebrates along the course of the Merced River. To implement this survey partnerships have been formed between Stillwater Sciences, Merced Irrigation District, EMRCD, the Upper Merced River Watershed Council, and the Merced River Stakeholders. The RCD has also developed new partnerships with regulatory agencies to develop the permit coordination program.

The coordinator has also supported the CALFED Watershed Program goal of implementing a strategy to ensure support and long-term sustainability of local watershed activities. The coordinator has submitted three grant proposals that would fund a watershed activities including: a demonstration project of bio-revetment streambank stabilization techniques, a project to increase citizen involvement in watershed improvement activities, and a non-native invasive species removal demonstration project.

Finally, the coordinator has conducted several educational activities to help landowners understand and comply with environmental regulations. The watershed coordinator conducted workshops for landowners that provide them with information about how to implement best management practices that will improve water quality and meet the requirements of the Irrigated Lands Waiver Program. The coordinator also provides landowners with information at the Merced River Stakeholders meetings, works with partners to publish and distribute the Merced River Alliance newsletter, and provided environmental education at the Merced county fair.

Ecosystem restoration – The coordinator has helped support the Ecosystem Restoration program goals of recovering at-risk native species, improving and maintaining water and sediment quality, and streamlining the regulatory permit process. As a result of the coordinator’s work, occurrences of federal and state listed species have been mapped for the East Merced area for use with the permit coordination program. The coordinator has also conducted water quality and erosion control workshops and began developing a permit coordination program that will allow landowners to implement projects without having to apply for multiple permits.

Performance Measures

Goal 1: Serve as an intermediary between landowners, agencies and interests in the watershed to move them toward a shared goal of watershed health.

Objective 1: Facilitate and provide support to MRS group to bring attention and energy to focus on lower Merced watershed health.

Performance Measure: Stakeholders received info and made contacts to benefit watershed and comply with regulations.

Progress:

- Conducted five Merced River Stakeholders meetings. Presenters at the meetings disseminated information and engaged stakeholders in discussions about Merced River projects.
- Held a Merced River Alliance kick-off dinner to celebrate the beginning of the Merced River Alliance. Over 90 stakeholders from all parts of the watershed attended. Presenters provided information about the biological assessment and activities in both the upper and lower reaches of the watershed.
- Disseminated information through the Merced River Alliance newsletter. The newsletter reaches 750 watershed stakeholders.
- Recruited new partners and stakeholders to be part of the Alliance.

Objective 2: Serve as a liaison for providing information and addressing concerns related to the Irrigated Lands Conditional Waiver program.

Performance Measure: Landowners will be aware and can adjust how their management practices affect water quality.

Progress:

- Held a landowner field day to teach landowners about the irrigated lands waiver, water quality testing, conservation practices for cleaner water, cover cropping, organic farming, and solar power on farms. Over 60 stakeholders attended the field day.
- Held a workshop for landowners to demonstrate best management practices for improved water quality. The workshop was held at the Merced County Fair. Topics covered included: Farmscaping for pest and resource management, the irrigated lands waiver program, do it yourself water quality testing, dealing with non-native invasive species, and watershed safe techniques for removal of *Arundo donax*.
- Conducted outreach at Ag Futures Alliance and Merced County Farm Bureau meetings on practices for improved water quality.
- Provided training to five landowners on water quality testing and other self-assessment practices. Water quality test kits were also provided to the landowners.
- Conducted research on best management practices that could be implemented by landowners to improve water quality and support the Irrigated Lands Conditional Waiver program.

Goal 2: Facilitate voluntary conservation work (including streambank stabilization) identified as a priority by MRS.

Objective 1: Evaluate geographical areas and types of work where environmental compliance may be preventing ecosystem restoration.

Performance Measure: Conservation work defined and # measures drafted and conservation work types affirmed.

Progress:

- Through consultation with USDA Natural Resources Conservation Service, Sustainable Conservation, landowners, and other stakeholders, the coordinator has identified conservation practices that would be useful in the area. Implementing these practices requires completing regulatory tasks that may be extremely difficult for individual landowners to accomplish. The practices will become part of the EMRCD permit-streamlining program.
- Catalogued species listed as threatened or endangered under the Endangered Species that may require protection when implementing practices approved under the permit coordination program.

This performance measure has been completed.

Objective 2: Engage in constructive dialog with the regulatory community regarding methods by which the experience of environmental compliance will be easier for landowners, while upholding all environmental laws and mandates.

Performance Measure: Minimum of two meetings and field visits hosted.

- Held meetings with Army Corps of Engineers, National Marine Fisheries Service, California Department of Fish and Game, US Fish and Wildlife Service, Regional Water Quality Control Board, Department of Water Resources, and the Board of Reclamation to discuss landowner environmental compliance.
- The coordinator and partners have chosen permit coordination as the approach to help landowners overcome the burden of individual permitting. The program will be conducted by the watershed coordinator with assistance from USDA NRCS and Sustainable Conservation.

This performance measure has been completed.

Objective 3: Attend training and coaching in land conservation work and permitting from Sustainable Conservation.

Performance Measure: Watershed Coordinator will have understanding of permitting process and establish a network of RCDs for support and encouragement.

Progress:

- Held regular teleconferences with Sustainable Conservation staff members who coached the coordinator about the permitting process.
- Attended Yolo/Lake County RCD's permit coordination meeting and field tour for regulatory agencies to learn more about the permitting process and establish a support network.
- Attended a California Watershed Forum meeting to network with others engaged in permit coordination.

Objective 4: Obtain funding to hire a permit coordination specialist to implement a coordinated permitting system.

Performance Measure: Appropriate funding program identified, grant application submitted and funding received.

Progress: The coordinator obtained funding to develop a permit coordination system. This performance measure is complete.

Goal 3: Secure funding for projects on lower Merced to enable enhancement and protection of water and/or habitat quality.

Objective 1: Grant writing to fund on-the-ground lower Merced projects.

Performance Measure: List of potential projects and available funders, two grant applications submitted, and funding received.

Progress:

- Funding was secured for the Merced River Alliance through a Proposition 13 grant.
- A concept proposal was submitted to DWR for the Citizen Involvement in Watershed of East Merced project. The concept proposal was accepted and a full proposal was submitted. The proposal is pending.
- Submitted a proposal to the CALFED Ecosystem Restoration Program for a Streambank Stabilization Demonstration project. The proposal is pending.

Goal 4: Build local capacity at the watershed coordinator level in order to meet EMRCD & MRS goals.

Objective: Watershed coordinator participation in regional and state watershed and conservation organizations and outreach to local, state, and federal agencies and officials.

Performance Measure: # of conferences attended, attend minimum of three meetings per month, six education days, and one annual local official briefing.

Progress:

This year the coordinator attended one local official briefing, six education days, and 36 meetings. The coordinator has also conducted outreach over the phone and email to various agencies and the local media.

Goal 5: Complete administrative grant tasks in a timely and accurate manner.

Objective: Administer grant, make reports to EMRCD, and write reports for DOC.

Performance Measure: Work completed on time, correctly (coordination with EMRCD grant administrator); approx. 30 oral and written board updates; up to 12 quarterly reports, up to three annual reports, final report.

Progress:

- Regular EMRCD staff meetings with grant administrator for budget review and program planning.
- Reports made to EMRCD at monthly board meetings.
- Prepared and submitted first annual report in April 2005.
- Prepared and submitted six quarterly reports.