

# El Dorado Irrigation District

## South Fork American Watershed



**Amount Funded:** \$214,157

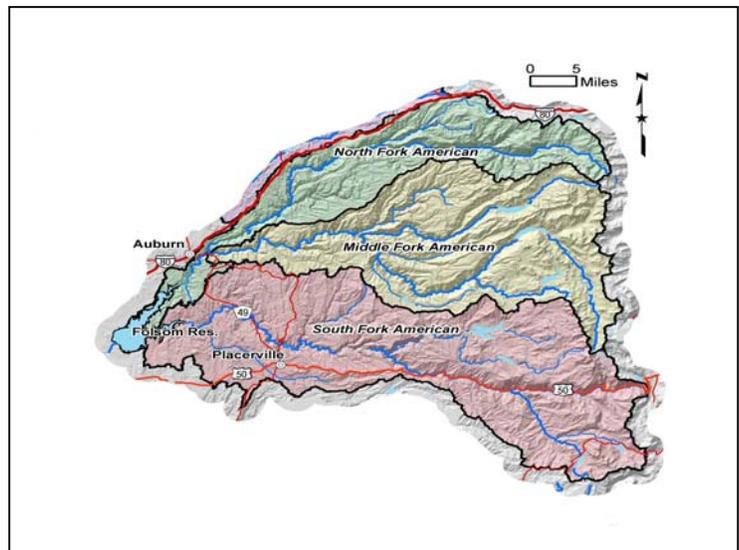
**Additional Funding Obtained to Date:** \$527,500

### Background

The watershed is located within the fastest growing region of the Sierra Nevada. Water quality is affected by many factors including timber and mining operations, agricultural runoff, industrial facilities, and recreational use. Natural events such as flooding, soil erosion, and fires exacerbate the problems. It is estimated that more than 13,000 septic systems are located within the watershed. Failing systems could pose problems for local residents, vacationers, and down stream water users. It is imperative that a comprehensive approach be used to prevent potential disasters.

### Benefits to the Watershed

◆ Brought together over 80 organizations represented by over 100 individuals to begin creating an Integrated Regional Water Management Plan (IRWMP). The process has already educated stakeholders in the region about the benefits of resource management integration. The process will identify priority actions for water quality, supply, and environment in the Cosumnes, American, Bear, and Yuba river watersheds. This will provide cohesive action within the watersheds, further facilitating protection, improvements, and preservation.



*American River Watershed water management map*

- ◆ Provided a presentation on El Dorado Irrigation District's hydroelectric project at the American River Watershed Conference. The presentation provided attendees with valuable information and helped foster improved communication between upper and lower American River watershed interests. Conference attendees had positive feedback for the presentation.
- ◆ Purchased a watershed model that includes representations of forest, wetland, farms, urban areas, factories, streams, and roads, and sits in a clear base, representing the ground water table. The model will be used to explain what a watershed is, what NPS pollution is, and how it can be controlled.

- ◆ Helped create a Drought Analysis Plan for the South Fork American River watershed. The plan will be instrumental in minimizing water pollution during a drought.
- ◆ Facilitated a collaborative process on the South Fork American River watershed to address the effects of recreation on water quality.
- ◆ Encouraged the Sacramento River Watershed Program to complete the Cosumnes-American-Bear-Yuba portion of their proposed GIS project.
- ◆ Completed two websites for the region to aid in the education of the community and the ability to communicate regionally with greater ease. The coordinator obtained \$15,000 to complete the American River Watershed Portal ([www.americanriverwatershed.net](http://www.americanriverwatershed.net)). The CABY IRWMP website ([www.cabyregion.org](http://www.cabyregion.org)) was completed. The website provides information on upcoming meetings, minutes from past meetings, and documents detailing decision making processes and how the decisions will affect the CABY region.
- ◆ Obtained \$5,000 from the Bureau of Reclamation to create a recognition program for homebuilders and developers. The program is designed to encourage the use of water saving fixtures in model homes, xeriscaping, and ET controllers to minimize irrigation at model home sites.
- ◆ Created a Regional Watershed Coordination Team (RWCT) for coordinating efforts between regional watershed interests. The group was suspended while the coordinator was on maternity leave but has been restarted by the new coordinator.

### **Benefits to CALFED Program**

**Watershed Management** – The coordinator completed several activities in support of CALFED Watershed Program goals. Specifically, the coordinator:

- Initiated the CABY IRWMP to ensure regional watershed planning for the future of the upper Cosumnes, American, Bear, and Yuba River watersheds. The plan will improve regional watershed management and will result in multiple benefits. The process includes coordination between over 80 water agencies, water districts, watershed groups, and non-profit agencies.
- Finalized the American River Watershed Portal to provide stakeholders with easy access to data and information about activities and projects within the watershed. The site increases coordination and facilitates the development of monitoring and assessment protocols and supports education and outreach.
- Established the Regional Watershed Coordination Team. The RWCT will facilitate funding and improve coordination, collaboration, and assistance among government agencies, other organizations, and local watershed groups.

**Water Use Efficiency** – In support of Water Use Efficiency program goals the coordinator:

- Developed the “El Dorado Friendly” program to encourage home builders to install water efficient hardware and landscaping in model homes to demonstrate the environmental and lifestyle benefits of being water smart. The coordinator also developed an “El Dorado Friendly” handout for homebuyers.

- Included in the CABY IRWMP a strategy to maximize the current water use through recycling and optimization of water conservation.
- Participated in the Placerville Home and Garden Show to demonstrate the importance of water conservation and watershed health.

**Ecosystem Restoration** – To support the goals of the Ecosystem Restoration program the coordinator collaborated with the USFS and county representatives to plan remediation of the water quality degradation caused by recreational activities in the South Fork American River watershed. Furthermore, environmental and habitat needs are addressed within the CABY IRWMP. The CABY objectives will help the region attain higher regional water quality.

**Drinking Water Quality** – In support of Drinking Water Quality program goals the coordinator worked on developing a GIS interactive mapping system for the American River Basin to establish baseline water quality data. The project will help identify gaps in water quality data and potential sources of NPS contamination.

### **Performance Measures**

**Watershed Goal 1:** Assessment and evaluation of future projects and/or programs within the SFAR will consider their impact(s) on the watershed as a whole including, but not limited to: water quality; measures needed to protect and restore habitat and fisheries; best management practices to reduce flooding, control erosion and sedimentation; and management activities required to maintain a reliable water supply, while balancing economic and environmental impacts.

**Objective 1:** Ensure a holistic watershed review for construction/improvement programs and projects that balances economic and environmental impacts.

**Performance Measure:** Identify and collaborate on a minimum of seven projects or programs for watershed restoration, monitoring, and/or preservation that involve multi-stakeholder participation.

### **Progress:**

- The RWCT, involving the region’s Watershed Coordinators as voices of their stakeholders groups in the CABY region, provides a venue to collaborate and discuss potential monitoring, restoration, education, and preservation strategies in the watersheds. This is an excellent group for generating ideas and creating regional synergies.
- Held regular meetings with all department heads at EID to update management on watershed activities and assist, where appropriate, on a watershed review of EID construction and improvement projects.
- Secured grant funding for the creation of a CABY IRWMP. The grant helped to fund regional collaboration in water resource management and will aid in the identification of watershed needs through stakeholder participation.
- Met with USFS representatives and El Dorado County Environmental Health managers to

assess regional needs regarding the impacts of recreational activities on the SFAR watershed. Both organizations are interested in developing a cooperative program, with EID as the lead agency. The next steps will be to conduct a presentation for the recreational cabins' homeowners association and obtain a grant to fund the process.

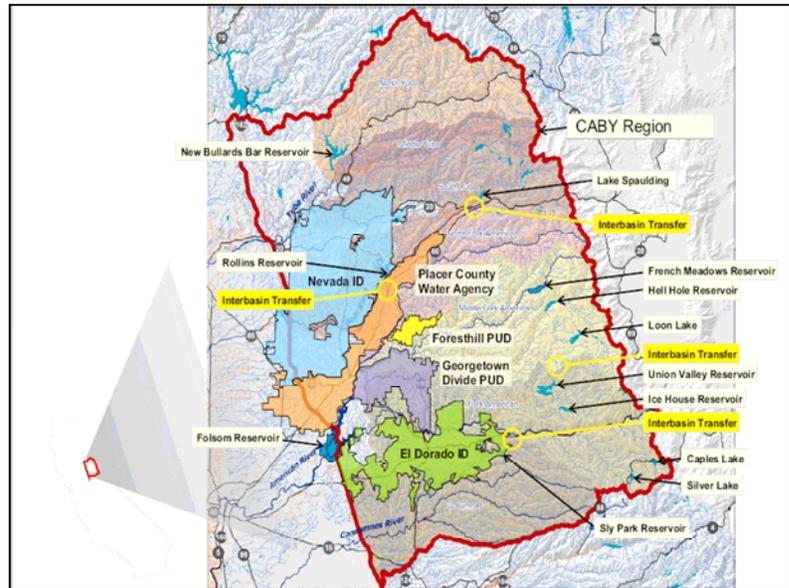
**Watershed Goal 2:** To ensure that members of the public at large appreciate their personal responsibility to protect water quality, quantities, and environmental resources for future generations.

**Objective 1:** Increase public awareness of water quality issues/concerns within the SFAR watershed.

**Performance Measure:** Public awareness increased by 10%; Nonpoint source contaminants in identified high target areas reduced by 20%. Programs and activities implemented.

**Progress:**

- Addressing NPS issues will be a large component of the CABY IRWMP process. The coordinator is the Workgroup Manager of the Water Quality Workgroup IRWMP. The workgroups objectives include several strategies that will focus watershed attention on NPS concerns. Specifically, the group has submitted a grant proposal for water quality assessment, monitoring, and reporting within the four regional watersheds. The workgroups plan also includes and an objective dealing with sediment issues and forestry management, one of the largest challenges to water quality in the region.
- The watershed model purchased by the El Dorado County and Georgetown Divide Resource Conservation District and EID will educate the public on concerns facing urban water quality, and the interconnectedness of the watershed as a whole.
- The coordinator participated in the American River Watershed Conference by conducting a presentation on upper American River watershed issues. Another EID staff member gave a presentation on the Project 184 (EID's hydroelectric/water project). These presentations provided better understanding about upper and lower American River issues and opened the lines of communication.
- Created a tri-fold pamphlet to educate the public and gain greater participation in the CABY IRWMP.



CABY Regional Watershed Map

- Participated in the planning process for the Home and Garden show in Placerville. The planning process included creating curriculum for public interaction, choosing prizes for a “Wheel of Fortune,” and familiarization with the Watershed Model.
- Helped to plan EID’s Customer Appreciation Day (CAD). The event typically attracts over 700 people. All participants receive valuable information about the watershed.
- Developed the American River Watershed Portal to provide a library of information about regional watershed issues to the public. The site also includes a calendar with information about upcoming watershed events.

**Objective 2:** Develop a watershed-wide drought protection plan and public education campaign for SFAR.

**Performance Measure:** Collaborative watershed-wide drought protection plan completed; Public awareness increased by 10%; Programs and activities implemented.

**Progress:**

- Hosted the third of four initial drought preparedness workshops. More than 25 people from the community, in addition to EID and Water Agency staff, attended the session. The workshop Included members of the Drought Advisory Committee, a committee formed to assist EID and the Water Agency in developing a strategic plan to prepare for and address the effects of drought.
- Phase II of the Drought Preparedness Planning effort has been initiated. Completion is scheduled for February 2007.
- The CABY IRWMP process included BMP drought preparedness education for water resource stakeholders and the public.

**Fall River RCD**  
Lower Pit Watershed



**Amount Funded:** \$195,518

**Additional Funding Obtained to Date:** \$311,582

**Background**

The Lower Pit River watershed spreads across northeastern California. Water drains into Shasta Lake and ultimately into the Sacramento River. The watershed’s diverse landscape offers opportunities and challenges in aquatic, forest, and rangeland ecosystems. Invasive species and non-point source pollution impact watershed ecosystems and the resources they support. Noxious and aquatic weeds, including Eurasian watermilfoil, perennial pepperweed, and purple loosestrife obstruct water flow to hydropower facilities, reduce agricultural production, and alter

ecosystem function of fish, plants, and wildlife. Tributaries to the Pit River are also impaired by non-point source pollution impacts. The Fall River is listed as an “impaired water body.”

### **Benefits to the Watershed**

- ◆ Facilitated noxious weed mapping and control projects for private landowners. The coordinator facilitated weed control projects by helping private landowners with application equipment and supplies and established monitoring sites to determine efficacy of their control efforts.
- ◆ Assisted the Regional Water Quality Control board with its surface water-monitoring program.
- ◆ Performed channel surveys with UC Davis.
- ◆ Developed grant proposals to obtain funding to address non-point source pollutant impacts in the watershed.
- ◆ Provided technical assistance for perennial pepperweed control and herbicide efficacy monitoring projects on 3 private properties. Over 1200 acres were surveyed in the spring and summer 2005. Nearly 15% of the acres surveyed were infested. Coordinated treatments with Shasta County and private landowners. Telar was applied to approximately 190 acres. Monitoring treatment efficacy continued through the Fall 2006.
- ◆ Coordinated in-kind contributions of herbicide, spray truck and ATV with application equipment, and herbicide between CDFA and private landowners. The coordinator developed a perennial pepperweed wetland monitoring station at a private ranch surrounded by wetlands on the northeastern edge of the McArthur Swamp. Monitoring sites were established to determine the efficacy of a new aquatic herbicide Renovate® registered for aquatic use in wetlands.
- ◆ Monitored basic water quality parameters, nutrients, total suspended solids, and bacteria in the Fall River each month.
- ◆ Coordinated and presented a “Twilight Tour” to Fall River landowners and representatives from the California Department of Food & Agriculture, CA Department of Fish and Game, US Fish and Wildlife Service, and other stakeholders.
- ◆ Displayed noxious weed and FRRCD restoration efforts at the Intermountain Fair in September 2005.
- ◆ Completed and circulated Fall River Eurasian watermilfoil draft management plan to Fall River landowners and agency stakeholders.
- ◆ Completed Fall River physical and biological assessments with UCD Davis Aquatic Ecosystems Analysis Laboratory and Watershed Science Group.



*Conducting water quality monitoring*

- ◆ Completed 2006 Regional Water Quality Control Board Fall River surface water quality monitoring. Throughout the year, the Watershed Coordinator measured basic water quality parameters with equipment donated by the Pit River Watershed Alliance (PWA). The WC coordinated analysis of nutrients, bacteria, and total suspended solids with the Regional Water Quality Control Board, PWA, and a private lab. During the winter 2005, data was organized and analyzed by the coordinator and prepared for publication.

### **Benefits to CALFED Program**

**Ecosystem Restoration** - Ecosystem restoration projects, including noxious weed mapping, implementation of chemical and biocontrol strategies, and herbicide efficacy monitoring were conducted on private lands throughout the Lower Pit River Watershed. Approximately 1200 acres were surveyed and 200 acres of perennial pepperweed control activities were coordinated by the Watershed Coordinator. The Coordinator also facilitated control projects of other A-rate weeds including Scotch Thistle and Squarrose Knapweed and C-rated weeds, such as yellow starthistle.

The coordinator and the RCD Board president met with CA Department of Fish and Game staff to discuss three Fall River watershed non-point source pollution reduction goals. The meeting was the first step towards meeting DFG regulatory requirements necessary to complete the restoration projects.

The coordinator also facilitated Fall River channel surveys in collaboration with the University of California Davis, Aquatic Ecosystems Analysis laboratory. Activities completed by the coordinator to help complete the surveys included: contacting landowners to obtain permission to access the river through private property and conducting repeated monitoring at three locations.

The coordinator obtained in-kind support from the UC Davis Watershed Science group. The Watershed Science group collaborated with the coordinator to establish benchmark elevations for the channel cross-sections.

Finally, the coordinator concluded the 2005 noxious weed outreach activities by establishing three perennial pepperweed monitoring transects with private landowners of the –D- Ranch. The transects help owners of –D- Ranch to measure the efficacy of their noxious weed control efforts.

**Drinking Water Quality** – The Fall River is used as a drinking water source for most of the landowners with homes on the Fall River. The coordinator implemented a monthly water quality monitoring program. The coordinator also provided the Regional Water Quality Control Board Program with monitoring data and, the RWQCB provides funding for laboratory analysis of *E. coli*, nitrates, and other basic water quality parameters.

### **Performance Measures**

**Goal:** Reduce Noxious Weeds and improve the watershed conditions on tributaries to Fall River.

**Objective #1:** Coordinate a strategy to develop, prioritize, and implement a noxious weed management plan.

**Performance Measure:** Management plan, strategy meetings, community outreach, FRRCD Board of Directors Presentations.

**Progress:**

- Created management plans for perennial pepperweed, Eurasian watermilfoil, and Purple Loosestrife. The plans include recommendations for controlling the core infestation on the McArthur Swamp. PG&E has provided the Fall River Cattlemen’s Association with funding to spray the large infestation.
- To supplement the cattlemen’s association’s activities, the coordinator worked with the Shasta Weed Management Area to treat satellite populations on smaller private lands. The plan is currently being implemented and the partners have obtained two years of funding from the CA Department of Food and Agriculture.
- A plan to implement a Eurasian watermilfoil control program was drafted. The coordinator worked with partners to implement Phase I (Baseline Monitoring) of the program. As part of this effort, the coordinator obtained \$35,000 from Region 5 RWQCB to perform river channel surveys, physical cross-sections, macroinvertebrate monitoring, and studies to correlate aquatic plants and insects associated with native plants and Eurasian watermilfoil. The results have been reported in a final technical report “Fall River 2005 Macroinvertebrate and Channel Cross Section Monitoring.”
- Participated in monitoring, collecting, and release of Purple Loose Strife leaf-eating bio-control insects around the Fall River Valley. The draft management plan includes finding funding to train local individuals to collect and release the leaf-eating beetles throughout the other areas.

This performance measure is 75% complete.

**Objective #2:** Develop a monitoring program that supports the weed management plan.

**Performance Measure:** 12 newsletter articles, nine progress reports, two annual reports (and one final report), four individual landowner meetings, two landowner access agreements, one work site training, and two days at the district fair.

**Progress:**

- Wrote three newsletter articles to educate stakeholders about the watershed and keep the community informed about watershed projects.
- Completed six progress reports to keep RCD board members informed about watershed activities.
- Submitted two annual reports to the Department of Conservation.
- Conducted four individual landowner meetings to gain access to river segments in the Fall River sub-watershed.

- Coordinated meetings with two private landowners (one in Upper Fall River and Lower Fall River) and managers to gain access to the Fall River for Eurasian watermilfoil and water quality monitoring activities. Access was granted for monitoring activities.
- Held three meetings with private ranches to implement the perennial pepperweed control project.
- Held a meeting with the Fall River Wild Trout Foundation president who is also a landowner on the Fall River. The meeting was held in a canoe on the Upper Fall River, which allowed participants to observe the impacts of sedimentation and discuss potential rehabilitation projects. The landowner considered providing access to the FRRCD for its monitoring activities.
- Conducted a landowner meeting with Vineyard Springs Reach residents to garner support for the FRRCD aquatic plant management program. An MOU is being planned between landowners and the Fall River Resource Conservation District.
- Met with two separate landowners on the Upper Fall River. The meeting discussed the health of the aquatic ecosystems and current watershed program activities to monitor the Fall River. The landowners agreed to grant FRRCD access to the river through their property.
- Obtained river access from several Fall River landowners to perform channel survey work by UC Davis.

**Objective #3:** Promote a district-wide natural resource education program that reached out to landowners and agency partners

**Performance Measure:** Results of document review, one meeting with landowners and Advisory Group, list of monitoring sites, monitoring protocol, long-term monitoring plan for watershed, compile monitoring data.

**Progress:**

- Reviewed Pit River Watershed Alliance WQ monitoring data, Shasta County Ag Department Perennial pepperweed maps, surveyed and created purple loosestrife maps in 2004.
- Met with the Technical Advisory group to discuss watershed and weed monitoring. The Technical Advisory Group met with the Pit River Watershed Alliance to coordinate water quality monitoring in the watershed.
- Met with local landowners, the Central Modoc and Pit RCDs, the Regional Water Quality Control Board, USFS, BLM, and NRCS to review available water quality monitoring data for the Fall River.

**Objective # 4:** Coordinate the development of a grant proposal to implement additional remediation strategies

**Performance Measure:** Funding list, one meeting with Fall River Technical Advisory Group, two draft proposal for grant funding, two final funding proposals.

**Progress:**

- Prepared a draft perennial pepperwood management proposal, circulated the draft, and submitted the proposal to the CDFA Partners support grant program. The proposal was funded and four ranches within the Fall River Valley joined the containment plan. Work was initiated in May 2005
- Drafted and submitted a proposal for perennial pepperweed control work on BLM land. The proposal was funded and noxious weed removal work began on BLM lands.
- Met with the Technical Advisory Group and presented Draft weed management strategies for Eurasian watermilfoil. Portions of the draft management plan have been initiated.
- Researched funding opportunities for noxious weed management projects and began developing a funding list.

# Friends of Deer Creek

## Upper Yuba Watershed



**Amount Funded:** \$196,385

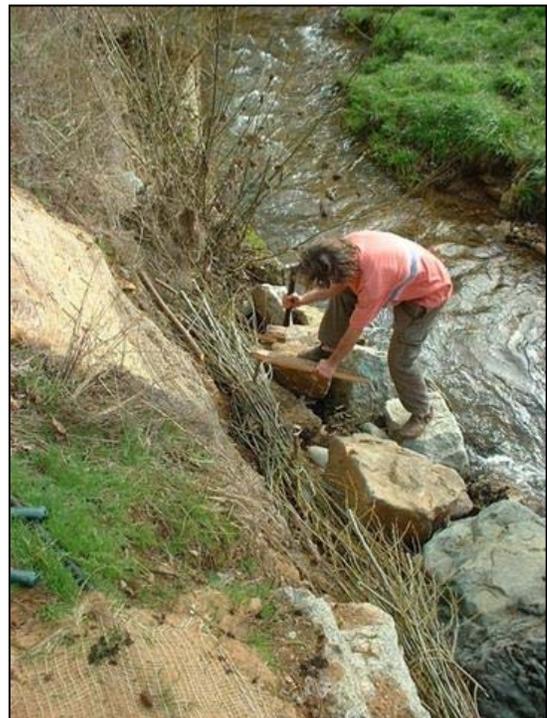
**Additional Funding Obtained to Date:** \$37,335

### Background

Deer Creek is a major tributary within the Upper Yuba Watershed and provides water to the Bay-Delta system. Rapid population growth is causing dramatic changes to the environment and exerting tremendous pressure on the region's natural resources. Past mining practices, increased fertilizer and herbicide runoff, erosion, and sedimentation from residential development have contributed to the creek's degradation. The area's high fuel loads and rural setting makes it very susceptible to fires. Due to mercury contamination from decades of gold mining, the State posted a fish consumption advisory for mercury.

### Benefits to the Watershed

- ◆ Led storm-based mercury sampling to assess mercury loads in the watershed under different flow conditions. The sampling data provides foundational information for the required TMDL and any remediation activities.
- ◆ Designed an upgraded mercury and TSS sampler to be used from bridges in high-velocity mountain streams. The sampler has the potential to improve accuracy of heavy metal sampling in watersheds throughout the Sierra foothills by making it feasible to sample from the faster-moving main current, which carries the greatest concentrations of suspended metals and sediment.
- ◆ Trained and involved volunteers in mercury sampling, flow data collection, and restoration techniques such as willow wattling.
- ◆ Facilitated the installation of three new staff gauges on Deer Creek and its tributaries, and a flow sensor and data logger on the main stem of Deer Creek, which collects data at 15-minute intervals. The new equipment will help characterize flow patterns in Deer Creek and provide detail about the timing and level of flows on tributaries needed for calculating mercury loads.
- ◆ Drafted Best Management Practice (BMP) summary documents for construction and grading that will help strategically address long-term erosion prevention. The documents are designed to increase stakeholder knowledge of Erosion Control Codes, BMPs that meet them, and



*A volunteer staking willow wattles on Deer Creek*

improve Erosion Code enforcement.

- ◆ Led bank stabilization efforts on the Little Deer Creek. The work helped stop additional erosion of banks scoured during the 12/31/2005 flood. The installed measures successfully prevented further erosion during another flood in March.
- ◆ Drafted a Restoration Strategy, which outlined issues to be addressed by restoration efforts on Lower Deer Creek.
- ◆ Wrote 4 grant proposals that would provide funding for strategic watershed improvement projects, and continue long-term work underway. Projects include mining contamination assessment and remediation; technical capacity building, BMPs, education, collaboration with community affiliates, strategic actions for water quality and habitat on Deer Creek, and flow and lower Deer Creek Salmonid habitat restoration. Additionally, the coordinator submitted a proposal in partnership with local stakeholders to obtain funding for a project that would prioritize and plan for the clean up of mercury-laden tailings identified as hotspots by FODC's mercury synoptic survey currently underway.
- ◆ Sampled sediment loads in dirt road runoff and conducted inventories of selected problem roads in the Deer Creek watershed.
- ◆ Developed a mercury sampling plan and protocols for the Regional Water Quality Control Board (RWQCB) sponsored mercury study on Deer Creek.
- ◆ Developed erosion control and non-point source pollution outreach materials for residents.

### **Benefits to CALFED Program**

**Watershed Management** – The coordinator completed activities to increase citizen knowledge of the watershed and promoted watershed partnerships. This year the coordinator: Trained and involved citizen volunteers in mercury sampling, flow data collection, and restoration efforts such as willow wattling. Collaborated with community partners to submit grant proposals for mining contamination assessment and remediation, technical capacity building, BMP education efforts, habitat restoration, and planning water quality and habitat improvement projects. The coordinator also held meetings with local stakeholders, conducted outreach to neighborhood associations, and met with landowners of an historic mine site.

**Ecosystem Restoration** – This year the watershed coordinator completed several activities in support of the ecosystem restoration program. The coordinator: Drafted Best Management Practice documents to help increase stakeholder knowledge of Erosion Control Codes, BMPs that meet them, and improve Erosion Code enforcement; Led bank stabilization efforts on Little Deer Creek to stop erosion banks scoured by the 12/31/05 flood; Drafted a Restoration Strategy to start planning for restoration efforts on Lower Deer Creek; Led storm-based mercury sampling efforts to assess mercury loads in the watershed under different flow conditions; Completed an ecological study at four sites along Deer Creek to help prioritize future restoration sites; and, involved high school students in hands-on educational activities at two restoration sites;

**Science** – In support of the CALFED Science program the coordinator designed an upgraded mercury and TSS sampler that can be used from bridges to conduct sampling in high-velocity mountain streams. The coordinator also facilitated the installation of three new staff gauges on Deer Creek and its tributaries, and a flow sensor and data logger on the main stem of Deer Creek, which collects data at 15-minute intervals. The new equipment will help characterize flow patterns in Deer Creek and provide detail about the timing and level of flows on tributaries needed for calculating mercury loads.

### **Performance Measures**

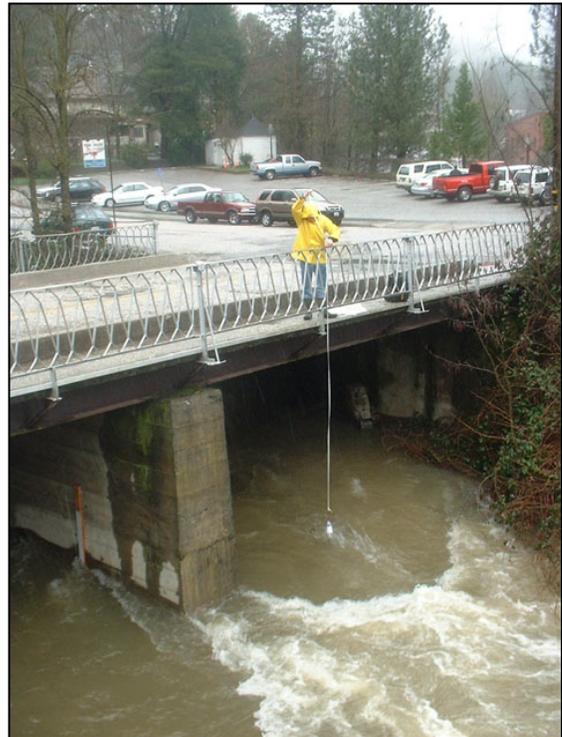
**Goal:** Improve the water quality of Deer Creek by increasing stakeholder participation in watershed conservation, protection, and restoration.

**Objective # 1:** Develop and implement a long-term restoration plan for mitigating the impacts of mercury deposition, transportation, and transformation in the Deer Creek watershed.

**Performance Measure:** 10% decrease in mercury bioaccumulation and transport into the Bay-Delta region.

#### **Progress:**

- Developed a mercury working group that was subsequently divided into two sub-groups to better reflect their purposes. The Mercury Advisory Group consists of scientists and researchers with technical expertise. The Mercury Community Affiliates includes local stakeholders and partners. The coordinator acts as a liaison to ensure cooperation between the two groups.
- Designed and revised a synoptic survey. The coordinator also updated the synoptic survey plan and procedures and, trained staff and volunteers in mercury and TSS storm sampling procedures.
- Developed a plan for measuring flow at various points in the watershed. Staff gauges were installed and data was collected. A flow data logger was installed at a downtown Nevada City site and data is now being recorded at 15-minute intervals. The coordinator set up a database for the mercury and TSS data.
- Continued to compile historical and current data on mercury contamination.
- Submitted eight grant proposals to secure funding for projects identified in the restoration plan.



*A volunteer uses the new mercury sampler.*

**Objective # 2:** To develop a sediment control program for the Deer Creek watershed focused on systematic ways of preventing future erosion and sedimentation problems to Deer Creek.

**Performance Measure:** 20% decrease in sedimentation into the Deer Creek watershed from roads.

**Progress:**

- Met with the Mattole Restoration Council to help develop a plan for the Deer Creek Watershed.
- Contacted local residents of large and private parcels to solicit input and held a meeting with the USFS.
- Conducted photo documentation and road inventories. As a result, three problem roads were identified and Total Suspended Sediment data is now being collected.
- Submitted three grant proposals to secure funding for public education on erosion and sediment control. The grants would provide funding for workshops and the development of educational resources.
- Submitted the final drafts of the Best Management Practice guidelines to the City of Nevada City for their review.

**Objective #3:** To develop a restoration plan that includes the evaluation, development, and implementation of alternative tertiary wastewater treatment facilities in the Deer Creek watershed.

**Performance Measure:** 40% decrease in nutrients entering the Deer Creek watershed from wastewater treatment plants.

**Progress:**

- Worked with Nevada City to develop a plan for implementing effective tertiary treatment of wastewater below the Nevada City Wastewater Treatment Plant.
- Submitted a proposal to obtain funding for project implementation.

**Objective #4:** To develop and implement a restoration plan for the Deer Creek watershed.

**Performance Measure:** The restoration of three sites in the Deer Creek watershed.

- Developed a restoration plan and continue to update and refine the plan as necessary.
- Conducted an ecological study at four sites along Deer Creek to help prioritize future restoration sites identified in the restoration plan.
- Submitted five proposals to obtain funding to implement the projects identified in the restoration plan.
- Restoration work has begun at two sites.

## Georgetown Divide RCD

### South Fork American



**Amount Funded:** \$123,386

**Additional Funding Obtained to Date:** \$880,193

### **Background**

The watershed is located within the fastest growing region of the Sierra Nevada. Water quality is affected by many factors including timber and mining operations, agricultural runoff, industrial facilities, and recreational use. The threat of catastrophic fires is of paramount concern. Urban pockets are scattered throughout the area, often surrounded by thick vegetation. Fuel loads are growing rapidly. Structures, habitat, animals, and people are threatened. Although numerous reservoirs provide water for local use, hydroelectric production, and agricultural purposes, it is insufficient to meet everyone's needs. Competing demands create conflicts, which can only be resolved through collaboration and cooperation.

### **Benefits to the Watershed**

- ◆ Facilitated the development of a Citizen Water Quality Monitoring program. The program is now fully operational and data is being collected on a monthly basis at strategic monitoring locations.
- ◆ Developed El Dorado County Agricultural Watershed Group Technical Advisory Committee Signatory of Participation document to set and define the responsibilities of each member.
- ◆ Developed a GIS template to provide landowners and partnering agencies with maps of their property at no cost. Maps will be used to plan best management practice implementation.
- ◆ Held a "Protecting Your Home and Land from Wildfire" workshop for stakeholders including private property owners and agency representatives.
- ◆ Worked with the County of El Dorado and the CVRWQCB to provide private landowners with technical assistance to implement erosion and sediment control best management practices. Over 25 Vegetation Establishment Guidelines Manuals, created by the coordinator, have been distributed.
- ◆ Coordinated permit applications and documentation required for the Finnon Lake Dam Reconstruction project. Permit applications completed include CEQA, US Army Corps Nationwide 404 permit, US Fish & Wildlife Endangered Species Survey and Biological Opinion, California Department of Fish & Game Stream Alteration Permit – 1600, Division of Safety of Dams (DSOD) engineering and specifications approval and permit, Central Valley Water Quality Control Board 401 Certification permit, and development of a Storm Water Pollution Prevention Plan (SWPPP) pertinent to local grading ordinance permit requirements. Completion of these documents was expedited through coordination with

partnering agencies including the Mosquito Volunteer Fire Department, Department of Conservation, International Union of Operating Engineers, Department of Water Resources, and the USDA Natural Resources Conservation Service. The proposed repair involves the complete removal and reconstruction of the embankment to bring the lake back to its original capacity of 350 acre-feet. The project will ultimately benefit the fisheries, wetland and upland habitats within the project area.

- ◆ Finalized a grant contract with the State Water Resources Control Board. The grant will fund creation of an Agricultural Stewardship Strategy for the South Fork American River.
- ◆ Worked with Indian Education Alliance, El Dorado Irrigation District, University of California Cooperative Extension, and the local fire safe council. Workshops included: Floods and watershed disasters attended by 15 participants; an Irrigation Efficiency Workshop that 25 participants attended; and, Protecting your Home and Land from Wildfire that 30 participants attended.
- ◆ Completed a Big Canyon Creek restoration plan for the Gold Bug Park Committee and the City of Placerville. The plan describes strategies to remove invasive species, revegetation recommendations, and erosion control management practices. Implementation will include partnership with the California Conservation Corps and USFS.
- ◆ Participated in the CABY (Cosumnes, American, Bear, and Yuba) Integrated Regional Watershed Management Planning (IRWMP) process.
- ◆ Helped the community of Chrome Ridge complete an evacuation route proposal in coordination with the USDA Natural Resources and Development Council. The coordinator completed maps and evacuation route design for the final proposal that was subsequently awarded in March 2006.
- ◆ Managed pre-fire fuels reduction programs on the Auburn Lakes Trails Evacuation Route and the Sly Park/Uncle Tom's fuel load reduction activities.

### **Benefits to CALFED Program**

**Watershed Management** – In support of the CALFED Watershed Management program the watershed coordinator: Worked with El Dorado Irrigation District and UC Cooperative Extension to host an irrigation efficiency workshop. Over 25 people attended this workshop, which focused on water conservation and water quality management practices. The coordinator also: coordinated the El Dorado County Agricultural Watershed group; and, participated in the Cosumnes, American, Bear, and Yuba Integrated Regional Watershed Management Planning (IRWMP) process.

**Ecosystem Restoration** – The coordinator facilitated the completion of environmental permitting and application documentation required for the Finnon Lake Dam Reconstruction project. Permits completed included CEQA, US Army Corps Nationwide 404 permit, US Fish & Wildlife Endangered Species Survey and Biological Opinion, California Department of Fish & Game Stream Alteration Permit – 1600, Division of Safety of Dams (DSOD) engineering and specifications approval and permit, Central Valley Water Quality Control Board 401 Certification permit, and development of a Storm Water Pollution Prevention Plan (SWPPP)

pertinent to local grading ordinance permit requirements. The coordinator expedited the completion of these documents through coordination with partnering agencies including the Mosquito Volunteer Fire Department, Department of Conservation, International Union of Operating Engineers, Department of Water Resources, and the USDA - Natural Resources Conservation Service. The project will involve reconstructing the dam and returning the lake back to its original capacity. As a result, native fish populations critical to sport and recreational uses will be enhanced.

Additionally the coordinator provided landowners with erosion and sediment control inspections and information about management practices aimed at protecting water quality and the natural hydrologic functioning of the watershed. And, helped the El Dorado County Noxious Weed Group to develop a noxious weed priority list to reduce their impacts and prevent additional introductions that compete with and destroy native species.

### **Performance Measures**

**Goal:** To promote and improve the health and condition of the South Fork American River watershed through stewardship and education to a measurable extent.

**Objective # 1:** Facilitate and improve coordination, collaboration, and assistance among government agencies, other organizations, and local watershed groups.

**Performance Measure:** Development of an MOU for the SFARWG, agendas, meetings minutes, attendance records, Signatory of Participation Document for TAC, comprehensive mailing list, GIS database, Resource/Agency Review Binder, monthly, quarterly, annual, and final reports required.

### **Progress:**

- Developed El Dorado County Agricultural Watershed Group Technical Advisory Committee Signatory of Participation document to define the responsibilities and services to be provided by each member of the committee.
- Completed agendas, minutes, and correspondence for El Dorado County Agricultural Watershed Group.
- Completed a comprehensive mailing list of all landowners participating in the El Dorado County Agricultural Watershed Group.
- Updated the resource/agency review binder on a monthly basis.
- Participated in the CABY (Cosumnes, American, Bear, and Yuba) Integrated Regional Watershed Management Planning (IRWMP) process.

**Objective # 2:** Significantly reduce the risk to life, property, and watershed health from wildfire through support of fuel management education and outreach components of the Stewardship Plan.

**Performance Measure:** “Fire Safe Landscaping Plant Guide” and five community workshops, 400 residential services with 10,000 tons material chipped, Fuel Hazard Map.

**Progress:**

- Developed a “Fire Safe Landscaping Plant Guide” to be used as an educational tool within the watershed.
- Developed “Protecting Your Home and Land from Wildfire” workshop agenda.
- Helped the community of Chrome Ridge develop a grant proposal that will fund the establishment of fire hazard evacuation routes. The proposal was selected for funding.

**Objective # 3:** Restore more natural hydrologic function and reduce rates of accelerated erosion and sedimentation through adaptive management and monitoring strategies.

**Performance Measure:** 500 homeowner erosion control guides produced and distributed; three years of water quality data, five citizen monitoring groups developed.

**Progress:**

- Provided technical assistance to private landowners on erosion and sediment control best management practices. Over 25 Vegetation Establishment Guidelines Manuals have been distributed.
- Completed a resource conservation brochure to provide landowners with information about the watershed and available assistance from the RCD.
- Developed a citizen water quality monitoring program that is now fully operational. Data is being collected on a monthly basis at strategic monitoring locations.

**Objective #4:** Maintain a set of principles that promote watershed stewardship, ecosystem restoration, water quality, and provides the basis for setting criteria for watershed management activities.

**Performance Measure:** Funding secured to ensure sustainability of Coordinator position, Implementation of Upper Hangtown Creek Watershed Restoration Plan, Development of a SFAR Watershed Management Plan

**Progress:** The coordinator submitted proposals to sustain the coordinator position, implement projects, and develop watershed management plans. This resulted in \$880,193 in secured funding to date. This performance measure is complete. However, the coordinator will continue to pursue funding opportunities as they become available.

**Objective #5:** Maintain a set of principles that promote watershed stewardship, ecosystem quality, water quality, and provides the basis for setting criteria for funding watershed activities.

**Performance Measure:** Hangtown Creek Watershed Plan Complete, Implementation of Upper Hangtown Creek Watershed Restoration Program, A minimum of five grant applications

submitted to implement priority projects, Watershed Management Implementation Plan developed for SFAR.

**Progress:** Participated in the CABY (Cosumnes, American, Bear, and Yuba) Integrated Regional Watershed Management Planning (IRWMP) process. The coordinator is currently a member of the Planning Committee and Co-chair of the Water Quality Working Group.

## **Glenn County RCD**

### **Upper Stony/Sacramento- Lower Thomes Watersheds**



**Amount Funded:** \$78,292

**Additional Funding Obtained to Date:** \$0

### **Background**

The Stony Creek Watershed encompasses approximately 700 square miles of public and private land in Glenn, Colusa and Tehama Counties, and is the second largest Sacramento River tributary on the west side of the Sacramento River. *Arundo donax* and *Tamarix* have colonized much of the lower reach of the creek, and three dams built in the upper watershed have disrupted channel morphology. Natural gravel flow and recruitment has been blocked causing greater channel scouring and bank erosion. Access of anadromous salmonids to the upper reaches of the creek has also been blocked. In addition, water quality sampling by DWR has detected elevated levels of mercury in the sediment.

The watershed coordinator position is currently being funded through the CBDA Costa-Machado Water Act of 2000. The DOC grant will be used to sustain the position from June 2006 through June 2007.

### **Benefits to the Watershed**

- ◆ Worked with California State University Chico students to map approximately 200 acres of *Arundo donax* in the lower Stony Creek watershed.
- ◆ Held seven watershed tours for government agencies and environmental scientists.
- ◆ Helped four landowners complete environmental permitting applications.
- ◆ Held a Stony Creek watershed tour as part of the California Invasive Plant Council Annual Conference.
- ◆ Helped write an Ecosystem Restoration Program proposal for developing a coordinated permit and Safe Harbor Agreements for Glenn County.
- ◆ Submitted a \$400,000 proposal to DWR to fund the development of a Stony Creek watershed management plan.
- ◆ Wrote and distributed a request for proposals to find a subcontractor for work on the watershed assessment and demonstration site projects. The coordinator also created a selection committee and facilitated the selection process. The committee selected the River Partners to complete the work.
- ◆ The coordinator created a landowner agreement for the demonstration project. The agreement was subsequently adopted by the RCD.

- ◆ Held a stream ecology and range management workshop for 30 teachers.
- ◆ Negotiated a contract with the River Partners for their sub-contract work on the demonstration project.
- ◆ Submitted a CEQA letter of exemption and began the permitting process for the demonstration site.
- ◆ Created and distributed a newsletter to help keep the public informed about watershed activities.

### **Benefits to CALFED Program**

**Watershed Management** – In support of the CALFED watershed management program goals, the coordinator held five watershed tours, conducted outreach to landowners and government agencies, started a watershed assessment, developed a monitoring program, and held LAC and TAC meetings.

**Ecosystem Restoration** – In support of the Ecosystem Restoration program goals concerning noxious weeds, the coordinator started an *Arundo donax* mapping project and started a demonstration project that exhibits *Arundo donax* and Tamarisk removal techniques.

**Science** - Began a remote sensing mapping research project that will identify plant species by their physical characteristics.

### **Performance Measures**

At the time of the second annual report, the grant had not yet started. As a result, progress on performance measures was not reported.

# Los Angeles & San Gabriel Rivers Watershed Council

Los Angeles / San Gabriel Watersheds



**Amount Funded:** \$249,854

**Additional Funding Obtained to Date:** \$136,747

## **Background**

The watersheds of the Los Angeles and San Gabriel Rivers cover 1,513 square miles, from the San Gabriel Mountains in the north to the Pacific Ocean at Long Beach. The two have been prehistorically linked as a single-braided channel system, and they share two major aquifers (Central Basin and Main San Gabriel Basin). The Los Angeles and San Gabriel watersheds are among the most heavily impacted by urbanization in Southern California. Imported water needs range between 55 and 65 percent. Water conservation is a significant challenge with the focus on reducing outdoor water consumption.

## **Benefits to the Watershed**

- ◆ Completed and published the Plant Profiler to help facilitate a new understanding of the conservation values of native plants. The online database contains information and photos of native water use efficient plants recommended for restoration and sustainable landscaping projects along the Los Angeles and San Gabriel Rivers.
- ◆ Secured funding and in-kind donations for a Sustainable Landscape Design Seminar. The coordinator then planned the implementation of the seminar. Twenty-six (26) landscape architects and five graduate students attended the one-day seminar. Seminar speakers included a native plant botanist, ecologist, nurseryman, landscape architects, and horticulturists. Feedback was extremely positive. Proceeds from registration fees will be used to conduct two additional seminars for landscape architects and project managers.
- ◆ Created a weed watch card. The card lists invasive plant species and non-invasive alternatives. Users can keep the card in their wallet or purse for easy access when shopping for plants. Over 50,000 copies will be distributed throughout southern California.
- ◆ Worked with the University of California Cooperative Extension on a proposal for funding a firewise landscaping research and education program.
- ◆ Participated in the LADPW LA River master plan meetings.
- ◆ Conducted outreach to the city of Long Beach concerning the planning of a residential demonstration project.
- ◆ Further developed the “Watershed Wise Gardening” outreach program. This program encourages municipal officials and elected representatives to use water use efficient native and Mediterranean plant materials for municipal landscaping needs.
- ◆ Worked with partners to develop a program to help facilitate sustainable landscape planting that consists primarily of native plants. The coordinator wrote an initial proposal to fund seed

mapping, collecting, banking and distribution. This will provide locally native plant propagules to growers for watershed restoration and landscaping efforts.

### **Benefits to CALFED Program**

**Watershed Management** – The coordinator worked with partners on a variety of educational efforts that have helped build local capacity to address watershed issues. Specifically the coordinator: 1) Developed a nonnative weed card that provides the user with information about weeds used in landscaping and native alternatives. 2) Worked with University of California Cooperative Extension to plan a firewise landscaping and education program. 3) Worked with California Native Plant Society (CNPS) and RSABG to plan outreach activities. 4) Collaborated with a variety of agencies on grant proposals and outreach activities. 5) Worked with partners to plan and seek funding for a native seed resources program. 6) Wrote educational newsletter articles.

**Water Use Efficiency** – A Landscape design seminar was held for landscape architects. The seminar focused its curriculum on techniques to conserve water in the landscape. The seminar included presentations on native plant materials for drought tolerant gardening and stormwater reduction best design practices. The coordinator's effort to develop the Plant Profiler website have also supported the goals of the water use efficiency program. The website provides decision makers, landscape architects, landowners, and others with information necessary to make water use efficient planting decisions.

### **Performance Measures**

**Goal:** A new understanding of the habitat and water conservation values of native plants.

**Objective 1:** Relevant educational outreach to groups such as youth, home gardeners, opinion leaders, design professionals, and public officials.

**Performance Measure:** A new understanding of the habitat and water conservation values of native plants.

#### **Progress:**

- Continued the development and organization of the Sustainable Landscape Program resource library.
- Planned joint outreach efforts with California Native Plant Society and RSABG.
- Planned a joint weed education and outreach effort with University of California Extension.
- Held a sustainable landscape seminar for landscape architects.
- Created and published a Plant Profiler website at <http://www.theplantprofiler.com>. The Plant Profiler includes images and information for native plants.

**Objective 2:** Promotion and implementation of the landscape ethic among agencies and organizations.

**Performance Measure:** A distinctive Southern California style of sustainable landscape planting, in which native plant communities have first priority, particularly in sensitive areas such as adjacent to extant native habitat and along river corridors.

**Progress:**

- Coordinated the planning of the sustainable landscape program workshop. The coordinator developed a speaker list and curriculum for the workshop, which targeted ASLA members.
- Further developed a “Firewise” landscape resource library.
- Researched low fire risk plant taxa. Fire resistance is a plant attribute included in the Plant Profiler database.
- Initiated research into infiltration BMPs and demonstration projects in the watershed.
- Conducted outreach to the city of Long Beach concerning the planning of a residential demonstration project.

**Objective 3:** Adoption of appropriate agency policies and landscape ordinances by local jurisdictions, and development of urban forestry programs with emphasis on native plants and weed management.

**Performance Measure:** Wide use of appropriate locally native plants, and selective use of well-adapted native cultivars, native hybrids and Mediterranean species.

**Progress:**

- Sent letters in support of AB1881, the draft water conservation in landscaping law.
- Sent support letter for SB 1608 which requires the use of native and Mediterranean plant materials in publicly funded transportation corridor landscapes.
- Reviewed landscape task force report and distributed it within the Landscape Ethics Committee. The report was submitted to the Governor.

**Objective 4:** Propagation, planting and maintenance of native plants and elimination of noxious exotic weed species by appropriate parties such as growers, nurseries, landscape contractors, and maintenance workers.

**Performance Measure:** Wide use of appropriate locally native plants, and selective use of well-adapted native cultivars, native hybrids, and Mediterranean species.

**Progress:**

- Supported the development of an Invasive Weed Management System to compile invasive weed maps for the Los Angeles County Weed Management Area.
- Developed an invasive plant card that lists invasive plants and non-invasive alternatives.
- Supported a planning effort to develop a native seed bank for watersheds within Los Angeles County. Funding is currently being sought for this effort.
- Gathered native and Mediterranean plant availability lists from local specialty nurseries.

## Mariposa RCD Upper Merced River Watershed



**Amount Funded:** \$155,654

**Additional Funding Obtained to Date:** \$2,776,382

### **Background**

The Upper Merced River Watershed is generally considered to be in good condition; however, there are no systematic studies supporting the watershed's status. The economic vitality of local communities is uniquely dependent on the watershed's good health; recreation and tourism to Yosemite National Park are the basis of the county's economy. Downstream users of the river are also dependent on its water quality. Collection of baseline data is needed to help formulate future land use decisions and actual conditions in the watershed.

### **Benefits to the Watershed**

- ◆ Coordinated volunteer water quality monitoring efforts. Twelve new volunteer monitors were trained bringing the total number of volunteers to 33. Water quality readings were collected at 14 separate sites three times during the year.
- ◆ Published the completed watershed management plan, *A Collaborative Action Strategy for the Upper Merced River Watershed*, in cooperation with agency representatives and stakeholders. The plan is being distributed to 10 agencies and 2 libraries.
- ◆ Worked with the Bureau of Land Management to lease a Waipuna Hot Foam System to attack invasive species along 5 miles of the Briceburg Road, a road directly adjacent to the river.
- ◆ Trained 8 docents for the Hites Cove Trail wildflower season visitors. The docents meet hikers at the busy trailhead where they pass out a descriptive flyer and answer questions.
- ◆ Established a Watershed Portal as part of the Digital Library. Resources and research publications were posted to the Watershed Portal to provide watershed stakeholders with easy access to the information.
- ◆ Worked with a field technician to monitor thistle growth along the Wild and Scenic Merced River Trail on a monthly basis.
- ◆ Worked with the Lower Merced River watershed coordinator to create the Merced River Watershed Alliance. The alliance includes upper and lower Merced River watershed groups and stakeholders.
- ◆ Planned and coordinated a South Fork Trail clean-up day that involved 14 volunteers who cleared seven miles of overgrowth and brush.
- ◆ Worked with partners to create solutions to problems caused by visitors using the watershed for recreational purposes. New trash cans were placed near popular swimming holes to reduce trash left on watershed beaches.

## **Benefits to CALFED Program**

**Watershed Management** – The coordinator produced and published a watershed management plan, *A Collaborative Action Strategy for the Upper Merced River Watershed*. This plan was produced in cooperation with representatives from a variety of agencies and other stakeholders. The coordinator also helped build the capacity of the community to address watershed issues, by posting existing watershed publications and research to an internet watershed portal. In addition, the coordinator facilitated the monitoring of recreational impacts on the watershed on a quarterly basis.

**Ecosystem Restoration:** Monitored invasive species growth along the Wild and Scenic trail to assess growth. In partnership with BLM, the coordinator leased a Waipuna Hot Foam system to control invasive species growth. The coordinator met with County officials and representatives from other agencies to develop an invasive species removal plan for the watershed. As a result of the coordinators work, invasive species removal has occurred on over 10 miles of trail next to the Merced River.

**Drinking Water Quality:** The coordinator facilitated quarterly volunteer water quality monitoring at 14 different sites to assess water quality.

## **Performance Measures**

**Goal:** Protect and improve the health of the Upper Merced River Watershed.

**Objective 1:** Reduce impact of visitors' recreational uses on the Upper Merced River Watershed.

**Performance Measure:** Reduce littering and vandalism at three BLM recreational sites by 25%.

### **Progress:**

- Impacts were monitored throughout the year with photo monitoring and visual inspection.
- Garbage containers have been placed at several recreation sites that were previously without garbage receptacles.
- Prepared informational materials for BLM to use with rafting companies: "Merced Wild & Scenic River 2006 Commercial Rafting Stipulations." The coordinator also prepared a presentation to be used with rafting companies about leaving the watershed as they found it, "leaving no trace."
- Worked with BLM to create an action plan for recreational impacts.

**Goal:** Improve coordination among public and private interests in the Upper Merced River Watershed.

**Objective 1:** Extend outreach to underserved areas of the watershed.

**Performance Measure:** 50% increase in funded projects (from 2 to 4).

**Progress:**

- Obtained a Prop. 13 CALFED grant for the Merced River Alliance.
- Submitted a proposal for a South Fork Trail rehabilitation project and another for funds to obtain legal expertise on nonprofit articles of incorporation.
- Meet with Stanislaus National Forest personnel to discuss invasive species issues and the protection of sacred areas.

**Objective 2:** Establish membership organization with 100 charter members.

**Progress:**

Working to obtain nonprofit status. Nonprofit status is necessary before members can be recruited.

# Mojave Desert/Mountain Resource Conservation & Development Council

Upper Kern / South Fork Kern Watersheds



**Amount Funded:** \$216,236

**Additional Funding Obtained to Date:** \$6,121

## Background

The area provides tremendous recreational opportunities for millions of Californians and others. Visitors kayak, boat, fish, hike, ride motorcycles, or simply relax. As the population increases so do the challenges. Trash is thrown into the rivers and along riverbanks while unwary visitors spread non-native and noxious weeds. Over the past several years, major fires have burned hundreds of thousands of acres contributing to sedimentation, erosion, and the destruction of habitat. Not only are the spawning areas for the Golden Trout threatened, but also so is the largest cottonwood-willow riparian habitat in the Western United States. This provides habitat to many important animal and plant species. The demand for water downstream is immense and can only be resolved if the diverse communities cooperate and work together to resolve local issues.

## Benefits to the Watershed

- ◆ Planned and held an irrigation efficiency workshop in conjunction with a water efficient, fire resistant native plant sale. The plant sale promoted Xeriscaping landscaping principles.
- ◆ Organized three field trips with NRCS Engineers and Soil Conservationists to conduct a site evaluation of diversion and distribution structures and tailwater recovery/return systems for South Fork Kern River stakeholders on the South Fork Kern River.
- ◆ Held a meeting with Kern County General Services Agency staff and a representative from the Kern County Board of Supervisors regarding obtaining a permit to allow the Kern County Fire Department to remove woody vegetation from the South Fork Kern River channel between the Fay Ranch Road and Sierra Way bridges.



*Volunteers gather Pinyon Pine Seeds to be used in the restoration of the Manther Fire area.*

- ◆ Met with NRCS Geologists to discuss developing a return irrigation flow sediment monitoring program on the South Fork Kern River. As a result of the meeting the coordinator purchased sediment monitoring equipment for use during the 2006 irrigation season.
- ◆ Hosted a booth at the Whiskey Flats Day public event to distribute educational watershed material, and irrigation efficiency literature to a large number of community members.
- ◆ Worked with MD-M RC& D staff to submit a CALFED Watershed Program Prop. 50 Grant Concept Proposal.
- ◆ Participated in a community action committee to review the first draft of the Kern Valley Specific Plan. The coordinator submitted recommendations for including additional provisions regarding land use affecting the watershed.
- ◆ Met with CCC staff and staff from the US Forest Service, Bureau of Land Management, California Department of Fish & Game, Kern River Preserve, and Cerro Coso College to discuss employing a non-resident work crew to provide a low cost labor force for watershed protection and preservation projects.
- ◆ Organized a Lake Isabella's homeowners Irrigation Efficiency Workshop. Presenters included representatives from UCCE, Irrrometer Corporation, NRCS, and the Oasis Garden Club of Indian Wells Valley who presented information on soil moisture monitors, improving water application, and xeriscaping.
- ◆ After a recent water use efficiency workshop, Kern Valley Golf Course implemented techniques to reduce irrigation and fertilizer demand. Furthermore, the Golf Course is now conducting water sampling. The sampling results are being provided to USFS and the coordinator is adding them to a database.
- ◆ Organized a Pinyon pine seed gathering and planting day. 13 volunteers planted 40 pounds of Pinyon seeds in 20 plots. Gathered seeds will be stored for a long term restoration demonstration project in the Manter fire burn area.
- ◆ Worked with the Kern County Water Agency to provide water conservation education for students at three public elementary and middle schools in Kern Valley.

### **Benefits to CALFED Program**

**Watershed Management:** In support of the CALFED Watershed Management program the coordinator completed the following activities:

- Worked with private and public stakeholders along the South Fork Kern River to improve channel maintenance, irrigation diversions, and tailwater recovery to reduce erosion and improve water use efficiency.
- Worked with NRCS Geologists and an NRCS Soil Conservationist to conduct an assessment that will help establish a sediment monitoring program to measure sediment loads in return irrigation flows.
- Worked with MD-M RC&D staff to submit a CALFED Watershed Program, Prop. 50, Chapter 7 Grant Concept Proposal.
- Helped California Department of Fish and Game contact South Fork Kern River stakeholders about a meeting to discuss a proposed Purple Loosestrife noxious weed eradication project.

**Water Use Efficiency:** To help meet Water Use Efficiency program goals the coordinator:

Organized three irrigation efficiency workshops. As a result of one of the workshops, the Kern Valley Golf Course grounds manager has implemented the techniques learned at the workshop and reduced both water and fertilizer use at the golf course. Two other workshops were held to promote homeowner irrigation efficiency through Xeriscaping.

**Ecosystem Restoration:** In support of CALFED Ecosystem Restoration program goals the coordinator:

- Worked with MD-M RC&D staff and CRWA to conduct an arsenic compliance workshop for small mutual water systems.
- Identified Kern Valley water systems with compliance problems and confirmed their contact information. Worked with CDFG on invasive species eradication projects.
- Organized a volunteer pinon pine and seed planting day as part of an effort to restore the 2000 Manther fire burn area.

### **Performance Measures**

**Goal 1:** Reduce water demand and consumption in the Upper Kern River Watershed resulting in increases to “real water” volumes in the Lower Kern River, making more water available for ground water recharge in the San Joaquin Valley.

**Objective 1:** Increase Irrigation efficiencies for 3 sectors of water users: Home owners, Kern Valley Golf Course, Small Mutual Stock Companies in the Kernville Area.

**Performance Measure:** Improve water use efficiency by 15%.

### **Progress:**

- Obtained contact information for homeowner organizations and groups in order to organize homeowner water use efficiency workshops.
- Worked with Kern County Water Agency water education staff to obtain school water education materials.
- Organized and conducted an irrigation efficiency workshop for Kern Valley Golf Course. Following the workshop the golf course implemented some of the techniques learned at the workshop.
- Organized two homeowner irrigation efficiency workshops, which included presentations about irrigation efficiency and Xeriscaping. One workshop was held in conjunction with a MD-MRC&D native plant sale.
- Developed tri-fold Watershed coordinator informational brochures and worked with MD-M RC&D to print 175 copies. The brochures were distributed at community events.

- Provided and presented age appropriate watershed information, including information specific to the Kern River watershed, to 240 Kindergarten through 4th grade students from the three Kern Valley schools during Native American Heritage Days.
- Obtained irrigation efficiency educational materials from NRCS, California Rural Water Association, Kern County Water Agency, and Indian Wells Water District for use at the irrigation efficiency workshops and for distribution at community events.
- Worked with Oasis Garden Club of Indian Wells Valley to obtain a comprehensive list of sources for native and xeriscape plants and seed for distribution at the homeowner water use efficiency workshops.
- Organized three site evaluations by NRCS Engineers and Soil Conservationists to evaluate diversion and distribution structures and tailwater recovery/return systems of stakeholders on the South Fork Kern River. Following the evaluations, NRCS assessed the information and issued recommendations for potential improvements.
- Helped the Kern Valley Golf Course Grounds Superintendent evaluate water and fertilizer reduction as a result of relocating portions of their irrigation system.

**Goal 2:** Improve water quality of the South Fork Kern River to the main Kern River by reducing sediment concentrations from farming activities and improving timing of release of ground and surface waters after fires.

**Objective 1:** Reduce sediment entering the South Fork Kern River from erosion caused by irrigation diversions by replacing damaged irrigation boxes in the field ditches to better control irrigation operations.

**Performance Measure:** Sediment reduced from these source sites reduced 20%.

**Progress:**

- Reviewed and compiled existing studies.
- Identified watershed stakeholders, developed a contact database, and began developing partnerships.
- Recruited the NRCS Soil Conservationist and NRCS engineers to perform evaluations of irrigation diversion structures on ranches.
- Organized a site visit to evaluate diversion and distribution structures on ranches in the upper two thirds of the watershed.
- Met with Kern County Services Agency and Kern County Board of Supervisors staff to discuss obtaining a permit for woody vegetation removal from the South Fork River channel.

**Objective 2:** Create an erosion/sediment mitigation plan for future fires affecting private lands to expedite protection and revegetation measures reducing the sediment loads in the North and South Fork of the Kern River.

**Performance Measure:** Final plan documents reach at least 30% of private landowners in the watershed.

**Progress:**

- Helped identify erosion and sediment problems and began developing an action plan and timetable for implementing corrective measures.
- Worked with NRCS Geologists to begin the process of establishing a South Fork Kern River sediment monitoring program to measure sediment loads in return irrigation flows at four locations.

**Goal 3:** Improve ecosystem health by increasing in-stream flow in the South Fork Kern River.

**Objective 1:** Improve Irrigation Water Management in the farming/ranching community of the South Fork Kern River Valley and find a solution to sediment build up in and around existing structures in the South Fork of the Kern River. These structures include bridges and main irrigation water take outs

**Performance Measure:** Improve Water use efficiency by 10%.

**Progress:**

Worked with NRCS to identify problems with irrigation diversion and distribution structure on ranches in the watershed. NRCS subsequently developed recommendations for measures to improve identified problems.

**Goal 4:** Watersheds restored improving Golden Trout habitat in the Upper Kern watershed. Water quality and quantity improved for Willow Flycatcher habitat in the South Fork Kern.

**Objective 1:** Include private ranching operations as partners in the Forest Service's Fisheries Management Plan

**Performance Measure:** 25% of ranchers in the area adopt BMP for improving water quality.

**Progress:**

- Developed a database with contact information for resident property owners in the watershed.
- Met informally with South Fork Kern River stakeholders regarding irrigation diversion and distribution systems. The coordinator met with different stakeholders on several occasions to develop a consensus of the kind and extent of assistance that would meet their needs and the needs of the watershed.
- Provided assistance to CDFG by notifying, identifying, and contacting private stakeholders on the South Fork Kern River about a proposed Purple Loosestrife noxious weed eradication project meeting.

- Attended Sierra Nevada–Cascade Conservation Grant Program Input Workshop to provide input regarding the importance of conservation easement grants. The coordinator also obtained application requirements and information for local stakeholders interested in participating in the easement program to preserve valuable watershed and unique habitat for several listed endangered and threatened species.

**Objective 2:** Improve and expedite revegetation activities in Manter burn area on both public and private lands.

**Performance Measure:** 10% reduction in sediment and optimum timing of release of water flows into the South Fork Kern from upper watershed.

**Progress:**

- Worked in cooperation with BLM, Tribal TANF, three Tribal groups and organizations, Kennedy Meadows Homeowners Association and other interested stakeholders to hold a volunteer Pinyon Pine seeds gathering day. Volunteers gathered 40 pounds of seed.
- Coordinated a volunteer Pinyon Pine seed planting and gathering day as part of a long-term restoration demonstration project in the Manter fire burn area. Forty pounds of Pinyon seeds were planted in twenty, one half to one-acre plots. GIS coordinates were recorded and entered into a database.
- Attended bi-annual Kennedy Meadows Property Owners Association to provide information about the revegetation of 2000 Manter fire burn area and recruit volunteers for the Pinyon Pine seed gathering and planting.

**Goal 5:** Improve and promote community-based collaboration efforts.

**Objective 1:** Bring the communities of Kernville, Lake Isabella, and Weldon together to understand their impacts on the Kern River, and the positive impacts they might have on the CALFED Bay Delta program.

**Performance Measure:** 50% increase in the awareness of problems concerning the Kern River Watershed.

**Progress:**

- Worked with Kernville Union School District and the South Fork Union School District have agreed to work a water education program into the curriculum.
- Provided watershed education to 240, K-4th grade students from the three Kern Valley schools during Native American Heritage Day. The coordinator provided students with age appropriate watershed information.
- Compiled materials and developed displays for watershed education at community events.
- Developed tri-fold Watershed coordinator informational brochures for distribution at community events.

- Attended Kern River Valley Pride Day to distribute literature and talked with over 50% of participants about watershed health.
- Presented update of watershed goals, objectives, and activities and offered support to the Kern Valley Fire Safe Council. The council to agreed to adopt and follow BMPs when undertaking fuel reduction projects to protect watershed.

**Objective 2:** Preserve water quality and quantity while promoting community based watershed efforts in new Developments.

**Performance Measure:** 50% of new developments sign on to the idea of using BMP in their projects.

**Progress:**

- Worked with Kernville Chamber of Commerce River Walk Committee to encourage the incorporation of BMPs into the River Walk Project.
- Participated in a community action committee and reviewed the first draft of the Kern Valley Specific plan. The coordinator submitted comments that strengthened draft provisions and provided recommendations for additional provisions regarding land use affecting the watershed.