



Consumnes River Watershed Inventory and Assessment
Sloughhouse Resource Conservation District

Murphy Creek Restoration Project
San Joaquin County Resource Conservation District

Lower Mokelumne River Watershed Education Project
City of Lodi – Lodi Lake Nature Area Docent Council

Calaveras River Watershed Management Plan Implementation Program (Phase II): Baseline Water Quality Monitoring
Calaveras County Water District

Delta Region Projects

Calaveras River Watershed Management Plan Implementation Program (Phase II): Base line Water Quality Monitoring	
Calaveras County Water District.....	87
Murphy Creek Restoration Project	
San Joaquin County Resource Conservation District.....	89
Cosumnes River Watershed Inventory and Assessment	
Sloughhouse Resource Conservation District.....	91
Lower Mokelumne River Watershed Education Project	
City of Lodi-Lodi Lake Nature Area Docent Council.....	93

Calaveras River Watershed Management Plan Implementation Program (Phase II): Baseline Water Quality Monitoring

Calaveras County Water District



An Adopt-a-Watershed program field trip is conducted on the Calaveras River at Monte Vista Recreation Area, just below New Hogan Dam.

Award Amount
\$300,000

Watershed
Calaveras River Watershed

County
Calaveras and San Joaquin Counties

CALFED Region
Delta Region

Legislative Districts
US Congress: 3
State Assembly: 25
State Senate: 1

Purpose

The purpose of this project is to conduct water volume and water quality monitoring that will lead to improvements in the Calaveras River Watershed.

Project Goals

- Design and implement a baseline water quality, stream condition, habitat, and best management practice (BMP) monitoring program.
- Coordinate development of watershed management policies and oversee project implementation.
- Continue public outreach programs aimed at building a more informed and involved stakeholder group.
- Use data collected during baseline monitoring to identify protective and restorative measures.

Benefits to the CALFED Program

The Calaveras River Watershed is a component of the Ecosystem Restoration Program Plan's Eastside Delta Tributaries Ecological Management Zone and supports fall-run Chinook salmon and other fish, wildlife, and plant resources. Rapid growth and land use changes are threatening water quality and ecosystem resources in the watershed, as well as water supply to the San Joaquin River and the Bay-Delta. The Ecosystem Restoration Program's vision for the Calaveras River watershed is to restore and maintain important ecological processes that support a sustainable migration corridor for fall-run Chinook salmon. This project conserves and protects water volumes and water quality in the Calaveras River, which aids in restoring instream flows and makes the area less dependent on alternative sources of water.

Project Overview

The Calaveras River is located in Calaveras, Stanislaus, and San Joaquin Counties and flows downstream directly into the San Joaquin River System and then on to the Bay-Delta. The Calaveras River watershed is experiencing degradation of water quality and impairments to the ecosystem because of increased population and land use intensity.

It is the responsibility of the Calaveras County Water District (CCWD) to provide clean, contaminant-free drinking water for residents and visitors to the CCWD service district. To do this and also ensure that the Calaveras River remains in a state that supports the beneficial uses of the Bay-Delta system, this project addresses future availability of sufficient water supply and water quality by monitoring baseline water quality and supply volumes to ensure they are adequate and of high quality. To do this, the project monitors baseline water quality and monitors water supply volumes to ensure they are adequate and of high quality. Conducting monitoring now will help avoid the need for expensive treatment in the future and ensure there is enough water for human consumption as well as for fish and wildlife. The project uses citizen monitoring groups to conduct much of the water quality monitoring.

The project will help manage water supply and water quality in the watershed, which is critical to the health of the Calaveras and San Joaquin Rivers and the Bay-Delta system.



The Calaveras River just below New Hogan Dam at the Jenny Lind Water Treatment Plant intake.

Contact Information

Kristin Coon
Calaveras County Water District
PO Box 846
San Andreas, CA 95249
Telephone: (209) 754-3543
E-mail: kristinc@ccwd.org



View above a livestock dam that will be breached in the Murphy Creek project.

Award Amount
\$282,500

Watershed
Murphy Creek Watershed

County
San Joaquin and Amador Counties

CALFED Region
Delta Region

Legislative Districts
US Congress: 11
State Assembly: 26
State Senate: 14

Purpose

This project improves fish passage for salmonids and restores ecosystem processes, along with aquatic and terrestrial habitats in the Murphy Creek Watershed.

Project Goals

- Restore rearing and/or spawning habitat for Chinook salmon and steelhead.
- Restore native riparian vegetation to encourage the reestablishment of neotropical migratory birds and other special-status wildlife species.
- Improve water quality and improve water flows within the creek.
- Promote sustainable agricultural practices that continue to support livestock and vineyard production within the watershed.

Benefits to the CALFED Program

Benefits of this project include greater collaboration and coordination between landowners and agencies. Improved coordination is leading to better management of the Murphy Creek Watershed and lower Mokelumne River Watershed. This project contributes directly to CALFED Program goals, including recovery of at-risk species through restoration of rearing and spawning habitat for salmonids, rehabilitation of ecosystem processes by restoring in-channel flow, gravel recruitment to the Mokelumne River, and restoration of native riparian vegetation. This project restores a free-flowing stream and improves water quality by controlling erosion and improving the riparian environment. These actions provide direct benefits to the Murphy Creek Watershed, the Mokelumne River, and the Bay-Delta system.

Project Overview

Murphy Creek is a 5-mile-long tributary of the Mokelumne River that traverses Amador and San Joaquin Counties, entering the Mokelumne River immediately below the Camanche Dam. The Murphy Creek Watershed encompasses approximately 3,100 acres and forms the northernmost boundary of the lower Mokelumne River Watershed. The Mokelumne River is an important tributary of the Bay-Delta System and provides valuable habitat for Chinook salmon and steelhead. Restoration of Murphy Creek will provide the opportunity for landowners, agencies, and other interested parties to implement elements of the Lower Mokelumne River Watershed Stewardship Plan, developed in 2002. Implementation activities include measures to:

- remove barriers to fish passage,
- increase canopy cover to improve habitat for coldwater fish species,
- remove nonnative plant species and replace with native vegetation,
- reduce livestock access to riparian zones,
- repair minor erosion/bank instability to reduce creek sedimentation, and
- promote sustainable agriculture within the watershed through the use of best management practices.

Expected outcomes of the project are the restoration of historical salmon and steelhead spawning and rearing habitat in Murphy Creek with an associated increase in populations of neotropical migratory birds and other special-status species through the maintenance of sustainable agricultural practices, increased water flows, and improved water quality.



A portion of Murphy Creek located below a dam and in need of riparian restoration and removal of invasive plant growth.

Contact Information

John Brodie
San Joaquin County Resource Conservation District
1222 Monaco Court, Suite 23
Stockton, CA 95207
Telephone: (209) 327-2823
E-mail: rvranglr@hotmail.com



A geomorphologist classifies an eroding area at the head of Clear Creek.

Award Amount
\$556,325

Watershed
Cosumnes River Watershed

County
Amador, El Dorado, and Sacramento Counties

CALFED Region
Delta Region

Legislative Districts
US Congress: 3 and 4
State Assembly: 4 and 10
State Senate: 1

Purpose

Gather information necessary to develop a long-range management plan for the Cosumnes River Watershed.

Project Goals

- Inventory and characterize stream channel erosion by subwatershed.
- Develop a map of unsurfaced roads in the entire watershed.
- Estimate relative sediment yield by subwatershed and land-cover/land-use type.
- Monitor and characterize sediment transport.
- Assess watershed conditions and identify resource problems.
- Prepare a watershed assessment report.
- Develop an extensive community outreach program.

Benefits to the CALFED Program

The Ecosystem Restoration Program has targeted the Cosumnes River Watershed for restoration of seasonally flooded habitat, tidal wetlands, splittail and Chinook salmon rearing habitat, sandhill crane habitat, and riparian plant communities. The inventory produced by the Cosumnes River Watershed Inventory and Assessment will be used to promote the CALFED Program's mission to restore ecosystem health by identifying problems in the Cosumnes River Watershed and by providing an information base for future watershed planning efforts. This project also supports water quality improvement and fish and wildlife habitat enhancement by prioritizing and recommending areas and resources for treatment to reduce erosion, sediment, and flood damage.

Project Overview

The Cosumnes River extends upstream from the marshes and valley oak riparian forests of the Delta to the coniferous forest at Plummer ridge in the Sierra Nevada above 7,600 feet. The Sloughouse Resource Conservation District (RCD), in coordination with the Cosumnes River Task Force (CRTF), is completing a resource inventory of the Cosumnes River watershed. The inventory will be used to develop a watershed management plan. The resulting watershed management plan will guide resource planning, restoration, enhancement, and water quality improvements in the watershed.

The RCD uses information collected from previous studies, ongoing studies, and new data collection efforts to develop a watershed conditions assessment identifying resource problems throughout the watershed. Based on stakeholder meetings led by the CRTF, there is a strong local desire to complete a comprehensive watershed plan for the Cosumnes River Watershed. Other ongoing studies are collecting some, but not all, data necessary to specifically support a watershed planning effort. This project provides the additional information needed to fully support the development of a watershed management plan.

To ensure extensive stakeholder involvement, the RCD and the CRTF conduct extensive public outreach and education with continued coordination and facilitation by CRTF. CRTF has demonstrated successful integration of watershed efforts over the past 5 years. Outreach activities include coordination with related watershed organizations, such as the Mokelumne-Cosumnes Watershed Alliance, monthly updates on the CRTF website regarding project progress, a quarterly newspaper, and public meetings to present preliminary and final conclusions and to get public input.



These well-vegetated banks provide bank stability on the Cosumnes River.

Contact Information

Tina Lunt
Sloughouse Resource Conservation District
9701 Dino Drive, Suite 170
Elk Grove, CA 95624
Telephone: (916) 714-1104 extension 112
E-mail: tina-lunt@ca.nacdnet.org



Local high school students participate in the "Storm Drain Detectives" program.

Award Amount
\$70,140

Watershed
Lower Mokelumne River Watershed

County
San Joaquin County

CALFED Region
Delta Region

Legislative Districts
US Congress: 11 and 18
State Assembly: 17 and 26
State Senate: 5 and 14

Purpose

This project will establish the Lower Mokelumne River Watershed Education Project to expand and enhance monitoring and community outreach activities of the Lower Mokelumne River Citizen Monitoring Program.

Project Goals

- Continuation of Citizen Monitoring work on the Mokelumne River and the City of Lodi stormwater system, staffed by high school students and the general public.
- Research and painting of two Mokelumne River Watershed murals at the Lodi Lake Park.
- Feasibility study of the Lodi Lake Park area for a larger building to house environmental studies work.

Benefits to the CALFED Program

The Mokelumne River is the largest eastside Delta tributary and, therefore, an important element of the CALFED Program. The Ecosystem Restoration Program has targeted this watershed for habitat improvements, and the Water Quality Program is working toward improvements in dissolved oxygen levels and sedimentation in the Mokelumne River. This education project improves coordination and collaboration among agencies, organizations, and groups in the watershed. It validates and strengthens existing monitoring protocols, which aid decision-makers in making informed choices for water management. The project also expands an existing education and outreach program and helps define the relationship between watershed processes and the goals and objectives of the CALFED Program.

Project Overview

Funds were awarded in 2000 to the Lodi Lake Nature Area Docent Council for start-up activities of the Lower Mokelumne River Citizen Monitoring Program (Program) and to refurbish a part of the Lodi Lake Discovery Center for office space. This project will continue and expand on the work of the Program. The Program is a collaborative effort of the City of Lodi Public Works Department, the California Regional Water Quality Resources Board, Central Valley Region, and the Lodi Lake Nature Area Docent Council. It trains local students and citizens to serve as monitoring team members and also trains local high school science teachers to serve as monitoring team leaders. The Program established protocols and began regular sampling and testing of river, lake, and storm drain waters for certain physical and chemical parameters. Students use their field experiences to augment their classroom education and to satisfy their senior project requirements. The water quality data collected by the monitoring teams are made available to educators, agencies, and the public on a web site.

This project will expand the Program to augment the capabilities and activities of the Program to:

- Continue and expand storm drain and river water monitoring activities, including recruitment, training, and deployment of four additional monitoring teams.
- Diversify and expand Lodi Lake Nature Area Docent Council activities related to water quality and stewardship education, including the creation of two watershed murals and the initiation of a feasibility study for remodeling the current Lodi Lake Discovery Center.



Student volunteers clean the storm drain path to enhance water quality.

Contact Information

Kathy C. Grant
City of Lodi, Lodi Lake Nature Area Docent Council
PO Box 3006
Lodi, CA 95241-1910
Telephone: (209) 339-8722
E-mail: kcgrant@sbcglobal.net