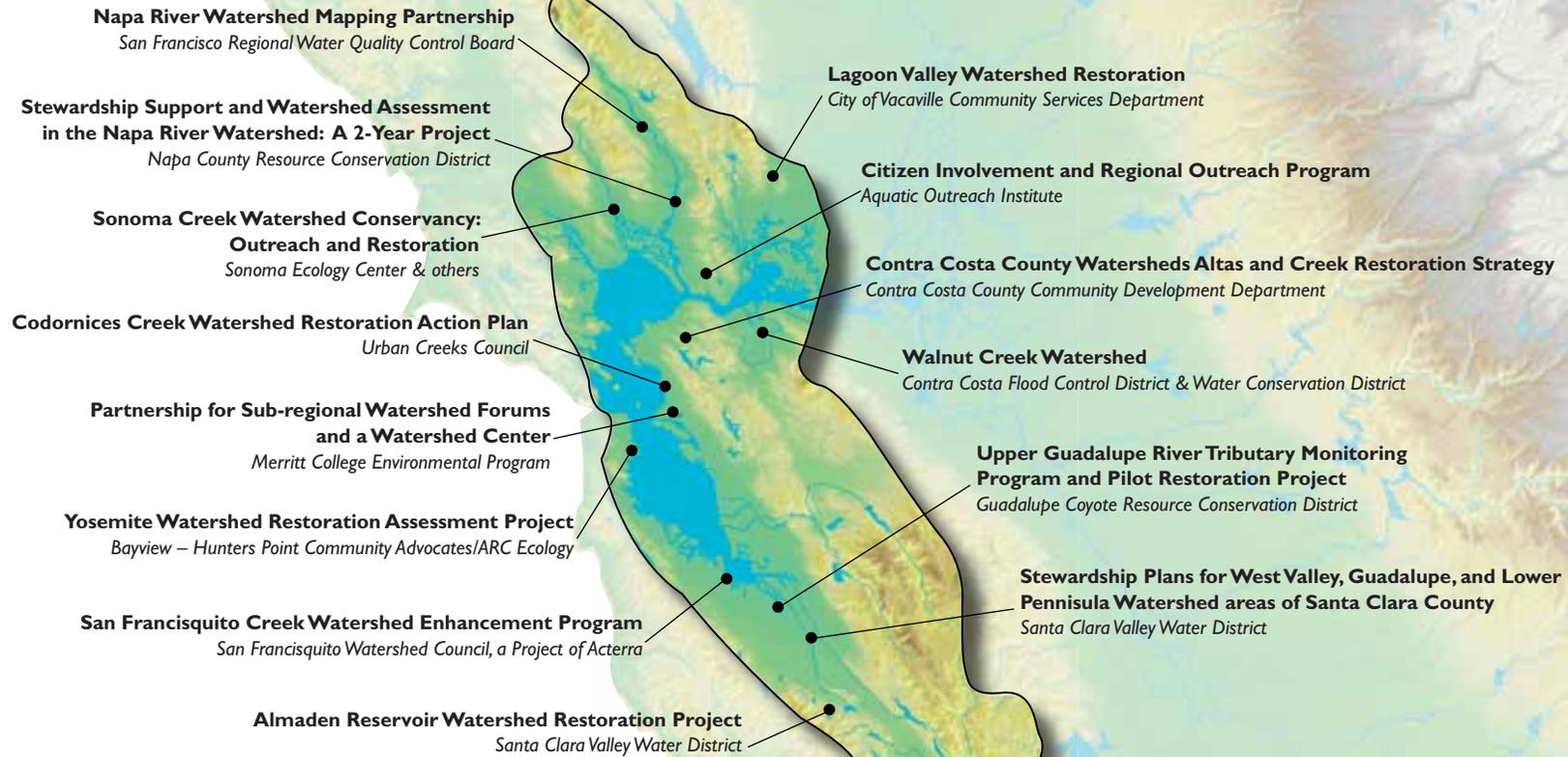




Bay Region



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Picturesque Lagoon Valley is situated between the Vaca Mountains to the west and the Laguna Hills.

Award Amount
\$431,000

Watershed
Lagoon Valley Watershed

County
Solano County

CALFED Region
Bay Region

Legislative Districts
US Congress: 7
State Assembly: 8
State Senate: 2

Purpose

Reduce sediment production into Lagoon Valley and associated waterways affecting the Bay-Delta.

Project Goals

- Initiate a localized sediment capture system.
- Improve water quality in the lake, drainages, and downstream areas.
- Restore wetland/riparian areas.
- Initiate remedial actions for a quality watershed.
- Educate and inform watershed stakeholders.

Benefits to the CALFED Program

The Lagoon Valley encompasses a number of watersheds that drain to the Bay-Delta, including Putah Creek—a priority stream for the Ecosystem Restoration Program. This project contributes to the goals of the Water Quality Program by helping to reduce sediment and eliminate negative impacts on beneficial uses of the surface water, including ecosystem benefits and municipal uses. The anticipated outcome of this project is the immediate and long-term reduction of sediment production into the Lagoon Valley and associated waterways eventually affecting the Bay-Delta. This project also seeks to reduce erosion and soil loss, improve water quality, restore vegetative cover, and improve education of public and private entities about watershed restoration.

Project Overview

Resource conditions in Lagoon Valley Watershed include a lake, wetlands, and riparian areas that are in degraded states. Fisheries in the lake, streams, and other riparian areas have declined because of extensive sedimentation from the surrounding watershed. The upper watershed appears to be a major source of sediment. Many drainages are incised and lack stabilizing vegetation along channel slopes. Hillside slump areas are also found, and evidence of the degree of sedimentation in the drainages can be seen in the upper storm collection system, where large volumes of sediment collect annually.

The Lagoon Valley Watershed Restoration project improves water quality in the watershed by implementing an integrated watershed management program in the upper watershed. This integrated program includes drainage stabilization, trail/fire road assessment and maintenance, and grazing management. Additionally, the project includes grant/project administration, monitoring, and public education programs.

Water bodies affected by the Lagoon Valley Watershed include Alamo, Putah, Laguna, and Ulatis Creeks. This project, therefore, will also improve water quality in these creeks as well as in the Bay-Delta system.



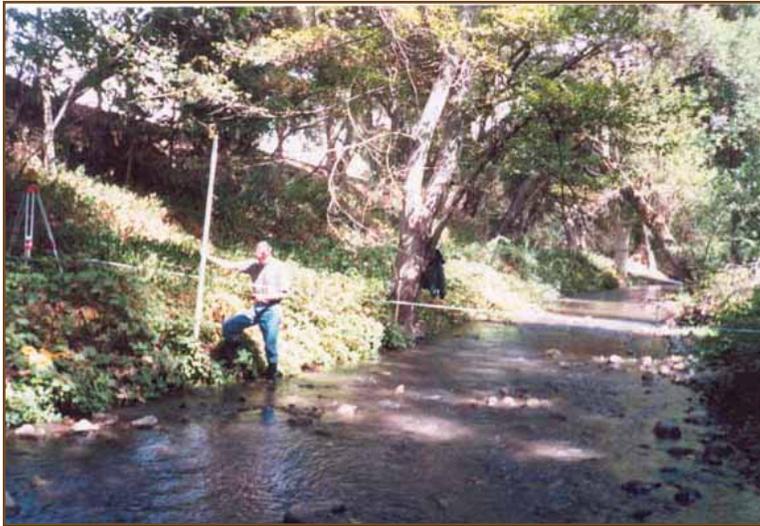
Parkland space in Lagoon Valley.

Contact Information

Scott Sexton
City of Vacaville Community Services Department
40 Eldridge Avenue, Suite 14
Vacaville, CA 95688
Telephone: (707) 449-5360
E-mail: ssexton@ci.vacaville.ca.us

Upper Guadalupe River Tributary Monitoring Program and Pilot Restoration Project

Guadalupe Coyote Resource Conservation District



A volunteer performs monitoring work on Guadalupe Creek.

Award Amount
\$47,000

Watershed
Guadalupe River Watershed

County
Santa Clara County

CALFED Region
Bay Region

Legislative Districts
US Congress: 14, 15, and 16
State Assembly: 27 and 28
State Senate: 11 and 15

Purpose

To develop and implement a comprehensive monitoring program for 12 upper Guadalupe River tributaries. The monitoring data will be used to select and develop a pilot restoration project for one section of degraded channel.

Project Goals

- Establish 12 permanent monitoring sites along upper Guadalupe River tributaries.
- Monitor flow conditions regularly and resurvey sites annually.
- Enhance data collection efforts with GIS and GPS computer equipment.
- Design a pilot restoration project at one selected stream site.
- Develop a proposal to implement the pilot restoration project.

Benefits to the CALFED Program

Establishing baseline conditions is a critical first step in developing local watershed management efforts. Only then can improvements in the watershed be quantitatively measured for success. By engaging the community in these data-gathering efforts, the Guadalupe Coyote Resource Conservation District is promoting local community involvement in the CALFED Program, enhancing local skills in watershed management, and building community capacity to assess and effectively manage a watershed that affects the Bay-Delta system. Overall, the project is building a foundation for improved watershed stewardship, including improved ecosystem quality, water quality, and water supply, and initiating the process of adaptive management in a watershed that contributes directly to the Bay-Delta system.

Project Overview

The Guadalupe River and its tributaries flow from the Santa Cruz Mountains and Santa Teresa Hills through the Santa Clara Valley and into San Francisco Bay. The US Environmental Protection Agency lists this watershed as severely impaired. A number of factors have contributed to this overall impairment, including urban development, pollution, erosion, flood control projects, water diversions, and land use practices.

The Guadalupe Coyote Resource Conservation District (GCRCD) is implementing the Upper Guadalupe River Tributary Monitoring Program and Pilot Restoration Project to gather comprehensive data on the current stream characteristics and health of 12 Guadalupe River tributaries as well as to monitor trends in the tributaries' conditions over time. Students and community volunteers collect cross-section measurements and flow data at both undisturbed "reference sites" and at selected degraded "monitoring sites." This data collection effort will culminate in the design of a pilot restoration project and proposal for one of the degraded channels monitored by the GCRCD.

The data collected by the GCRCD and community volunteers are shared with the CALFED Program and other regional, national, and international databases. Data obtained from established reference sites also are used to support watershed assessment efforts and restoration project designs for disturbed and degraded areas of the watershed. This information is also useful to the Santa Clara Basin Watershed Management Initiative's Watershed Assessment work and the efforts of local environmental educational organizations.



Golf Creek, a tributary to the Guadalupe River, during a no-flow season.

Contact Information

Lawrence M. Johmann
Guadalupe Coyote Resource Conservation District
40 Redding Road
Campbell, CA 95008
Telephone: (408) 288-5888
E-mail: gcrcd@pacbell.net



Walnut Creek Watershed

Contra Costa Flood Control and Water Conservation District



A portion of the Walnut Creek drainage with State Route 4 and Mount Diablo in the background.

Award Amount

\$260,000

Watershed

Walnut Creek Watershed

County

Contra Costa County

CALFED Region

Bay Region

Legislative Districts

US Congress: 7

State Assembly: 8

State Senate: 2

Purpose

Restore and revegetate the lower Walnut Creek Channel by reducing point and non-point source sedimentation into the Walnut Creek drainage.

Project Goals

- Restore riparian areas in the Walnut Creek Watershed.
- Reduce excessive erosion and soil loss.
- Improve water quality.

Benefits to the CALFED Program

Walnut Creek flows to the Bay-Delta via the Suisun Bay and is a component of the Ecosystem Restoration Program Plan's Suisun Marsh Ecological Management Zone. Implementation of this project addresses multiple CALFED Program objectives. Ecosystem benefits include improvements in aquatic and terrestrial habitat. Water quality improvements include reductions in pollutant loads and control of point and non-point source pollution. This project also contributes to water supply reliability by enhancing the watershed's ability to absorb, store, and release water.

Project Overview

The 180-square-mile Walnut Creek Watershed is located in central Contra Costa County and is a tributary to the Suisun Bay. Major cities in the watershed include San Ramon, Lafayette, Danville, Walnut Creek, Pleasant Hill, and Concord. Water quality in Walnut Creek and its tributaries is degraded owing to excessive erosion and sedimentation associated with stormwater runoff from construction sites, pesticide and fertilizer runoff from agricultural and residential areas, storm drain contamination owing to improper oil and grease disposal, illegal dumping of toxic fluids, and accidental spills of contaminants. These water quality problems result in accidental fish kills, degraded aquatic habitat, and potential public health hazards.

This project develops an integrated watershed plan for Walnut Creek. The plan addresses a number of issues, including sedimentation, re-vegetation, fish migration barriers, toxic pollutant contamination, non-point source pollution, restoration, and information sharing. The anticipated outcome is immediate and long-term reduction in point and non-point sediment production into Suisun Bay. Other expected outcomes include reduced erosion and soil loss, improved water quality, enhanced ecosystems along the corridor, restoration of vegetative cover, and continued education of public and private entities about watershed restoration.



Water flows through revegetated areas in the lower Walnut Creek channel.

Contact Information

Kevin Emigh
Contra Costa County Flood Control District
255 Glacier Drive
Martinez, CA 94553
Telephone: (925) 313-2333
E-mail: kemigh@pw.co.contra-costa.ca.us



Pre-project erosion at the edge of a local road.

Award Amount
\$300,000

Watershed
Guadalupe River Watershed

County
Santa Clara County

CALFED Region
Bay Region

Legislative Districts
US Congress: 15 and 16
State Assembly: 27 and 28
State Senate: 11 and 15

Purpose

Restore approximately 2 acres of aquatic and riparian habitat in the Guadalupe River Watershed to support sensitive and endangered species.

Project Goals

- Restore 2 acres of riparian habitat in the Guadalupe River Watershed.
- Reduce sedimentation to the Almaden Reservoir.
- Reduce loadings of mercury to the Almaden Reservoir and the San Francisco Bay ecosystem.
- Assess watershed habitat restoration as a means of sedimentation control.
- Engage local community members in citizen monitoring efforts.

Benefits to the CALFED Program

One of the CALFED Program's objectives for water quality is mercury and sediment reduction to levels that do not adversely affect aquatic organisms, wildlife, or human health. This project helps to meet this objective by restoring habitat in the Guadalupe River Watershed to reduce the amount of sedimentation and mercury entering the watershed. In doing so, this project restores valuable habitat for sensitive species and improves water quality. By engaging local community members in monitoring efforts, this project increases local capacity to assess conditions and to make informed watershed management decisions.

Project Overview

The Almaden Reservoir sits in the southern portion of the Guadalupe River Watershed within the eastern foothills of the Santa Cruz Mountains. The watershed is 170 square miles and spans a range of rural, suburban, and urban land uses. The Guadalupe River is on the Regional Water Quality Control Board's 303(d) list as an impaired waterbody for mercury and diazinon.

This project restores two sites that are degraded as a result of historical mining activity that caused excessive sedimentation. The areas are downcut and eroding into the Almaden Reservoir. The sites are located in a northwestern drainage to the reservoir on public land under the management of the Santa Clara County Parks and Recreation System. The County will take responsibility for maintenance upon completion of the restoration.

Elements of this restoration project include conducting an assessment to evaluate existing conditions, conducting soil stabilization practices, and rehabilitating streambanks with biotechnical measures. The primary intent of the biotechnical measures is simultaneous reduction of streambank erosion and improved riparian and stream habitat. Restoration of the two sites provides multiple benefits, including the restoration of habitat for sensitive and endangered species and reduction of sedimentation and mercury into the watershed.



Eroding masses in this stream contribute heavy metal contamination to the system.

Contact Information

David Drury
5750 Almaden Expressway
San Jose, CA 95118
Telephone: (408) 265-2607
E-mail: DDrury@valleywater.org



A group of local youth at a water quality sampling location.

Award Amount
\$771,000

Watershed
Yosemite Creek/Slough/South Basin Watershed

County
San Francisco County

CALFED Region
Bay Region

Legislative Districts
US Congress: 12
State Assembly: 12
State Senate: 8

Purpose

Conduct an assessment for the Yosemite Watershed to serve as a model for other urban watersheds.

Project Goals

- Identify and address conditions that have an impact on water quality in the Yosemite Creek/Slough/South Basin.
- Improve water quality for the Bayview–Hunter’s Point community and the portion of the San Francisco Bay Delta affected by Yosemite Slough.
- Improve access to restored habitats and natural areas in the Bayview–Hunters Point community.

Benefits to the CALFED Program

This project may serve as a model for other urban communities to conduct watershed assessments, particularly in those communities with environmental justice issues. Environmental justice means that all people, regardless of race, culture, national origin, or income, are able to enjoy equal environmental protection and to benefit from environmental improvements. The CALFED Program is committed to addressing environmental justice challenges related to the management of water in the Bay-Delta. By integrating environmental justice into this community-based watershed assessment, this project is helping the CALFED Program achieve this commitment as well as its watershed health goals.

Project Overview

Yosemite Creek/Slough/South Basin is located in the heavily urbanized Bayview-Hunters Point community in the City and County of San Francisco. Bayview-Hunters Point is a low-income community largely comprising people of color. Cumulative air, land, and water pollution affect the community; it has some of the highest rates of breast and cervical cancer, asthma, and respiratory illnesses in California. The watershed has experienced significant loss of ecological function and habitat for aquatic and avian species and presents a health hazard for those who use it for recreation and subsistence. To date, the land use planning and development processes in the Bayview-Hunters Point have not included any watershed-level analysis or management approach.

In the first phase of a long-term effort to restore this urban watershed, this project conducts a community-based watershed assessment aimed at identifying the water quality impacts on, and ecological conditions of, Yosemite Creek/Slough. It includes:

- community skills training, education, capacity-building, and technical assistance targeted to youth, seniors, and unemployed/underemployed local residents, landowners, and organizations;
- community-based watershed planning process to design a restoration and management plan for the watershed;
- gathering of baseline watershed data to inform ongoing redevelopment plans;
- examination of the impact of sewage treatment plant outflow and the effectiveness of urban water quality best management practices;
- identification of the extent of impervious surfaces that increase non-point source pollution runoff;
- and evaluation of the opportunities for restoration of surrounding wetlands.



The Yosemite Creek inlet.

Contact Information

Saul Bloom
Arc Ecology
833 Market Street, Suite 1107
San Francisco, CA 94103
Phone: 415-495-1786
E-mail: saulbloom@mindspring.com



Assessing steelhead population health in Sonoma Creek.

Award Amount
\$270,541

Watershed
Sonoma Creek Watershed

County
Sonoma County

CALFED Region
Bay Region

Legislative Districts
US Congress: 6
State Assembly: 1
State Senate: 2

Purpose

Address needs for community dialogue, conduct assessment of at-risk species, and implement restoration projects in the Sonoma Creek Watershed.

Project Goals

- Conduct public outreach and education regarding watershed issues and expand public participation.
- Provide environmental education for primary classes.
- Conduct an assessment of existing steelhead populations in Sonoma Creek.
- Implement restoration projects on Sonoma Creek tributaries.

Benefits to the CALFED Program

Watershed conditions in Sonoma Creek and the North Bay contribute to the function of the Bay-Delta system because all Central Valley anadromous fish pass through the North Bay and depend on the North Bay and marshes for some critical part of their life cycle. Investing in restoration projects in the North Bay is a highly efficient way to leverage benefits to the entire CALFED Program area. The Ecosystem Restoration Program Plan states that major factors limiting steelhead populations in Sonoma Creek include agricultural and urban development, barriers, and other water quality impacts from urban and agricultural runoff. This project develops better understanding of steelhead populations in the Sonoma Creek Watershed and enhances fish survival by removing barriers and stabilizing streambanks.

Project Overview

The Sonoma Creek Watershed is tributary to San Pablo Bay, arguably the least developed watershed of any size that drains directly to San Francisco Bay. This project's focus is to improve coordination, expand public outreach, assess watershed conditions for steelhead, and implement restoration projects in the Sonoma Creek Watershed. This collaborative project consists of six primary elements:

Provide public outreach and education. The Conservancy provides a forum for agricultural, environmental, scientific, residential, educational, and governmental sectors to discuss watershed issues and seek mutually acceptable solutions to improve management.

Provide environmental education. The project provides environmental and science education classrooms, including lessons and field trips to local assessment and restoration projects. Activities are compatible with California State science education standards.

Conduct an assessment of the steelhead population. This assessment quantifies the locations, age distribution, and year-to-year survival rates of Sonoma Creek's steelhead population and will be used to guide restoration of a self-sustaining steelhead population.

Improve fish passage. Plans are underway to remove a barrier to fish passage on Carriger Creek, a tributary to Sonoma Creek to improve access to several miles of high-quality steelhead habitat.

Stabilize streambanks. The project stabilizes a 1,000-foot stretch of Carriger Creek, a high quality habitat for steelhead.

Restoration planning. This project develops a restoration plan for the Nathanson Creek Preserve and Trailway, an urban greenway in Sonoma that supports steelhead and Chinook salmon.



A local geologist teaches Sonoma Valley students about water quality and stream health.

Contact Information

Caitlin Cornwall
Sonoma Ecology Center
205 First Street West
Sonoma, CA 95476
Telephone: (707) 996-9744
E-mail: sec-cornwall@vom.com



A group of volunteers stand near a pile of invasive plants they pulled near Manhattan Avenue in East Palo Alto.

Award Amount
\$250,225

Watershed
San Francisquito Creek Watershed

County
San Mateo and Santa Clara Counties

CALFED Region
Bay Region

Legislative Districts
US Congress: 14 and 15
State Assembly: 21, 22, and 24
State Senate: 8, 11, and 15

Purpose

To update the Watershed Management Plan and conduct an education and outreach program for the San Francisquito Creek Watershed.

Project Goals

- Update the Draft Watershed Management Plan for San Francisquito Creek.
- Expand the community education, outreach, and monitoring program.
- Produce a Creek and Watershed Map of Palo Alto and South Peninsula.

Benefits to the CALFED Program

The San Francisquito Creek watershed is located in Palo Alto and drains to the San Francisco Bay. This project provides multiple benefits to the CALFED Program including improving water quality, controlling invasive species, protecting endangered species and their habitat, and expanding public outreach. San Francisquito Creek supports one of the South Bay's last viable runs of steelhead, a species of concern to the Ecosystem Restoration Program. Implementation of this project helps to ensure steelhead survival in the watershed. The project addresses constituents of concern to the Water Quality Program by controlling urban runoff and conducting creek clean-ups. The project's education and outreach component educates citizens about watershed processes and encourages them to make responsible land use decisions.

Project Overview

The San Francisquito Creek Watershed is located in the South Bay, runs through the city of Palo Alto, and drains to the Bay-Delta. The watershed is home to several important species, including red-legged frogs, and is one of the last viable steelhead runs in the South Bay. The San Francisquito Creek Watershed Enhancement Program is a three-step process to more effectively educate and engage citizens in the watershed to make good decisions regarding watershed management and conservation.

The first step revises the Draft Watershed Management Plan for San Francisquito Creek, originally drafted in 1997, to address new issues. These include an infestation of Chinese mitten crabs in the creek and pollutants such as urban pesticides, manure from horse stables, and silt from development. The updated plan also outlines goals and priorities for pollution prevention, flood and erosion control, land use, social issues, and education and outreach.

The second task is the implementation of the Stewardship Program and Streamkeepers Program. Streamkeepers is a watershed-wide outreach program that educates the community about the importance of creek health, builds local involvement, increases watershed awareness, encourages stewardship activities, and expands public involvement in watershed management. The program centerpiece is Saturday workdays that invite citizens, local businesses, and schools to participate in creek clean-ups, removal of nonnative invasive plant species, and native plant revegetation.

The project's last step is the production and distribution of a Creek and Watershed Map of Palo Alto and South Peninsula, depicting the surface water and hydrology of the area. This easy-to-use map will provide public access information about the urban watershed and will be used for environmental education curriculum on school fieldtrips and in classroom presentations.



Volunteers hard at work planting vegetation along the riverbank.

Contact Information

Phil Chang
San Francisquito Watershed Council
3921 East Bayshore Road
Palo Alto, CA 94303
Telephone: (650) 962-9876 x304
E-mail: watershed@acterra.org

Stewardship Plans for West Valley, Guadalupe, and Lower Peninsula Watershed areas of Santa Clara County

Santa Clara Valley Water District



A segment of the restored Guadalupe Creek with a lowered floodplain, stabilized banks, and native plantings.

Award Amount
\$700,000

Watershed
West Valley, Guadalupe, and Lower Peninsula Watersheds

County
Santa Clara County

CALFED Region
Bay Region

Legislative Districts
US Congress: 14, 15, and 16
State Assembly: 27 and 28
State Senate: 11 and 15

Purpose

Develop a comprehensive stewardship plan to achieve protection, enhancement, and restoration of natural resources in each of the three watersheds within the Santa Clara Basin.

Project Goals

- Provide a strategic approach for watershed management.
- Pursue the District's stewardship responsibilities.
- Create a systematic and dynamic tool for project ranking and basis for budgeting.
- Identify high-priority projects requiring outside funding assistance.

Benefits to the CALFED Program

The Santa Clara Valley Water District (District) is demonstrating its commitment to a holistic watershed approach to its management activities. It is providing increased flood protection in a way that also protects and enhances local streams and is becoming more engaged in efforts to clean and protect riparian habitats. The District provides flood protection through maintenance of 700 miles of creeks and rivers and is involved in local public education. This project furthers CALFED Program goals by supporting stewardship of local streams and waterways to restore and enhance the local ecosystem, implementing programs to protect and improve water quality, and developing a multi-objective planning process for flood protection programs.

Project Overview

The Santa Clara Valley Water District (District) is Santa Clara County's wholesale drinking water supply manager. It coordinates flood protection for many of its 1.7 million residents and supports the stewardship of the county's more than 700 miles of streams. This project develops Stewardship Plans for three watershed areas within the District's jurisdiction—West Valley, Guadalupe, and Lower Peninsula Watersheds.

Each plan provides a strategic approach to achieve the District's responsibilities within a given watershed. The plans provide an opportunity to translate complex watershed management issues into coordinated, achievable, and acceptable measures to improve effectiveness and efficiency on a watershed-by-watershed basis. The plans involve:

- developing community-based visions, goals, and objectives;
- identifying and prioritizing projects and programs within a watershed;
- developing outreach strategies; and
- developing timelines for implementation of projects and programs.

The models for these stewardship plans are the Coyote Watershed Stream Stewardship Plan developed by the District and Santa Clara Basin's Watershed Management Planning process. The major elements of the plans are an outreach strategy, existing conditions description, vision, goals and objectives, programs and projects, policies, performance measures, prioritization criteria, resources and timelines, and feedback mechanisms. The tools developed in these planning processes foster coordination, collaboration, and cooperation among resource agencies, community groups, and landowners in each of the three watershed areas.



Coastal Cleanup Day, fall 2003.

Contact Information

Jim Fiedler or Sarah Young
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118
Telephone: (408) 265-2607
E-mail: jfiedler@valleywater.org or syoung@valleywater.org



Sediment source identification fieldwork in progress on Carneros Creek.

Award Amount
\$318,300

Watershed
Napa River Watershed

County
Napa County

CALFED Region
Bay Region

Legislative Districts
US Congress: 1
State Assembly: 7
State Senate: 2

Purpose

Create a “desktop watershed model” to help guide management decision-making in the Napa Basin.

Project Goals

- Provide tools to help resolve potential pollutant problems.
- Identify and prioritize stream/riparian habitat restoration programs.
- Collect high-resolution digital topographic data to develop a digital terrain model covering the entire watershed.

Benefits to the CALFED Program

This project addresses all of the primary CALFED Program objectives by demonstrating a powerful and cost-effective tool for analyzing physical and biological functions of watersheds. It allows prediction of likely responses to a variety of potential land and water management strategies. It also fills a need for a new approach to ecosystem quality assessment in a system such as the Napa River, which the Ecosystem Restoration Program has identified as a target watershed for restoration activities, yet where the cost of assessment is prohibitive and access to sampling sites is difficult. The modeling approach used in this project will lead to a better understanding of aquatic habitat characteristics and help determine how the system can best be restored to improve water quality, water supply, and ecosystem values.

Project Overview

This project advances ongoing watershed management and restoration efforts in the Napa River basin by using airborne laser altimetry to generate topographic maps and watershed data of much higher resolution than currently exists. It also demonstrates the application of desktop watershed models that take advantage of these higher resolution data to improve understanding of watershed processes, conditions, restoration opportunities, and constraints.

The desktop watershed model created by this project will provide a far more accurate and complete representation of watershed topography than is currently available. The added accuracy will allow the entire stream channel network and important hillslope features of the region to be accurately located and mapped. The data will become part of a spatial geographic information system (GIS), permitting combination with other GIS information. It will enable more robust physical and ecological analyses of the watershed.

This approach facilitates the development of hypotheses about expected resource conditions, the extrapolation of site-specific information to entire watersheds, and the modeling of causal linkages between land use impacts and resource conditions. This project creates a spatially explicit information database of sufficient resolution to allow rapid yet comprehensive watershed analysis and restoration planning.



The technical science team meets in Napa to discuss the project.

Contact Information

Mike Napolitano
San Francisco Regional Water Quality Control Board
1550 Clay Street
Oakland, CA 94612
Telephone: (510) 622-2397
E-mail: MBN@rb2.swrcb.ca.gov



Whitney Dotson leads a field workshop at Pt. Pinole in North Richmond.

Award Amount
\$496,122

Watershed
Multiple Bay Area Watersheds

County
Alameda and Contra Costa Counties

CALFED Region
Bay Region

Legislative Districts
US Congress: 7, 9, and 13
State Assembly: 14, 16, and 18
State Senate: 9

Purpose

Improve awareness of, and capacity for, local watershed stewardship and management within the northeast San Francisco Bay area.

Project Goals

- Develop databases and conduct watershed forum discussions on policy, science, education, and participation.
- Create a watershed center and subset of riparian centers.
- Build watershed group organizational capacity.
- Include underrepresented communities in watershed planning.
- Develop a field program in watershed awareness and organization, monitoring, project implementation, fire, and watershed vegetation management.

Benefits to the CALFED Program

Alameda County is located in the primarily urban San Francisco Bay Area, for which the Water Use Efficiency Program has identified objectives for improved water supply. One of the goals of the regional watershed center program is to educate citizens about landscaping with native species to reduce urban landscape irrigation demand. This program builds a durable, self-sustaining infrastructure that combines technical assistance, collaboration, monitoring, adaptive management, outreach and education, and funding assistance to build the capacity of local watershed groups. The regional watershed center concept facilitates a flow of information between neighboring watershed groups, local stakeholders, and the CALFED Program, ultimately increasing the scale and effectiveness of local watershed projects.

Project Overview

This 3-year capacity-building program creates an accessible prototype watershed center that lays the groundwork for expansion into a network of locally led watershed centers throughout the state. This prototype serves Alameda County, a part of the CALFED Program Solution Area. The goal of this project is to improve the awareness of, and capacity for, local watershed stewardship and management by citizen groups, schools, planners, landowners, businesses, and elected officials. These groups already execute or oversee many small projects that cumulatively affect streamflow, water quality, habitat, and human use benefits.

This network of locally led watershed centers is designed to fill a gap between regional resources and local needs and to increase communication among neighboring watersheds' groups. The prototype watershed center builds on the well-developed experience of several partner organizations with field programs, outreach, technical skills, and websites. The watershed center makes it possible for fragmented local watershed groups to better connect for a healthier, more stable, and cleaner watershed ecosystem with increased communication. Groups benefit from connection to new and existing regional, state, and federal watershed resources from varying locations and in various formats. Watershed centers modeled on this prototype will aid with collaborative funding efforts that will enhance long-term sustainability. Support for infrastructure connections will increase the scale and effectiveness of local individual watershed projects.

The strategy is to include underrepresented communities in watershed planning and outreach and conduct science-based watershed assessment through these tasks. Learning to assess and plan within these urban watersheds provides a large population with direct experience of watershed values and of the impacts of various planning alternatives.



A breakout group discusses citizen involvement at an East Bay Watershed Forum meeting at the Oakland City Hall.

Contact Information

Robin Freeman
Merritt College Environmental Program
12500 Campus Drive
Oakland, CA 94619
Telephone: (510) 434-3840
E-mail: rffreeman@merritt.edu



Volunteers get their feet wet during a watershed monitoring training exercise.

Award Amount
\$50,000

Watershed
Multiple Contra Costa County Watersheds

County
Contra Costa County

CALFED Region
Bay Region

Legislative Districts
US Congress: 7 and 10
State Assembly: 11 and 15
State Senate: 7

Purpose

Development of a countywide planning document consisting of baseline data for all 20 primary watersheds in Contra Costa County.

Project Goals

- Harness grassroots citizen volunteer energy for a Global Positioning System (GPS) inventory of creek resources and unique watershed features.
- Expand citizen involvement in the development of restoration strategies and priorities for each watershed.
- Facilitate local leadership to develop educational outreach.
- Expose the hidden value of creeks to our communities.
- Identify the potential benefits of enhancing these resources.

Benefits to the CALFED Program

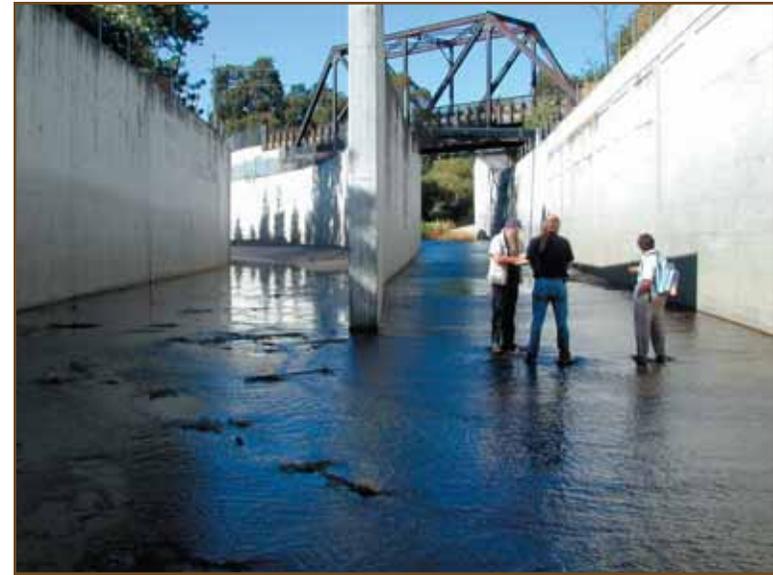
The Watershed Atlas project demonstrates the key role that locally driven watershed groups can play in the CALFED Program's larger effort to restore the Bay-Delta system. The more informed and involved communities and agencies are about local watershed issues, the better they can work together to protect and restore the land that drains to the Bay-Delta. The Watershed Atlas provides comprehensive baseline data, including topography, hydrology, planned land use, detailed GPS data, and social/political boundaries and enhances local capacity by providing a practical and powerful resource for the public, policy-makers, community groups, and resource professionals. It also presents restoration opportunities that demonstrate how local support is essential for long-term success and sustainability.

Project Overview

The Contra Costa Watershed Forum is a partnership organization of nonprofit groups, local governments, environmental education groups, and regulatory agencies called the Contra Costa Watershed Forum. The purpose of the Watershed Forum is to coordinate countywide discussion of, and planning for, creek and watershed issues. The Forum also seeks to identify opportunities for multi-objective enhancements of creeks and watersheds. To that end, the Watershed Forum is developing a countywide planning document called the Contra Costa County Watersheds Atlas and Creek Restoration Strategy (Atlas).

The Atlas project is gathering, assessing, and cataloging existing map-based and statistical data on watersheds and creeks in the county; compiling an inventory of creek restoration projects in the county; developing GIS data for watersheds in the county; and creating both online and paper versions of the Atlas document. The Atlas contains separate chapters on each watershed containing maps, statistics, charts, and text and will ultimately serve as a tool for making watershed management decisions, initiating formal watershed-specific planning processes, and implementing actual restoration projects.

The grant provided by the Watershed Program was used to develop a community GPS creek data collection program to augment the Atlas' baseline data. Implementation of the program entailed training citizen volunteers to follow collection and data evaluation protocols using GPS units to inventory creek resources and unique watershed features. The GPS data collection program not only provided important information on local creeks, but it also expanded citizen involvement in the development of restoration strategies within each watershed. It also facilitated local leadership in educational outreach efforts. Samples of the data are displayed in the Atlas.



Information is gathered for the GPS inventory of watershed features.

Contact Information

John Kopchik
Contra Costa County Community Development Department
651 Pine Street
4th Floor, North Wing
Martinez, CA 94553
Phone: (925) 335-1227
Email: jkopc@cd.co.contra-costa.ca.us

Stewardship Support and Watershed Assessment in the Napa River Watershed: a 2-Year Project

Napa County Resource Conservation District



A young student participates in a Carneros Creek stewardship group activity.

Purpose

This project addresses environmental stressors and enhances resource conservation, management, and restoration using collaborative planning, monitoring, and outreach approaches that encourage broad stakeholder participation in the Napa River Watershed.

Project Goals

- Carry out physical and biological watershed assessments that involve community group volunteers in data-gathering.
- Incorporate stakeholders in writing watershed management plans that include conservation, maintenance, and restoration strategies based on the assessments.
- Share data with multiple agencies interested in comparative analyses and linked projects.

Award Amount
\$360,900

Watershed
Sulphur Creek and Carneros Creek Watersheds

County
Napa County

CALFED Region
Bay Region

Legislative Districts
US Congress: 1
State Assembly: 1
State Senate: 2

Benefits to the CALFED Program

Development of watershed assessments for the Sulphur and Carneros Creek Watersheds serves as the foundation for multiple-interest groups to better manage the Napa River Watershed. This project provides support for development of watershed management plans promoting community-based watershed monitoring efforts to address a broad range of ecological, biological, and social values. These plans will result in coordination of restoration activities to improve water quality and ecosystem habitat of the Napa River Watershed, a watershed that has been identified by the Ecosystem Restoration Program as in need of enhanced riparian vegetation. Progress monitoring will result in efficient and long-term coordination of restoration activities and ensure sustainability of the watershed and benefits to the Bay-Delta System.

Project Overview

The Napa River flows directly into San Pablo Bay. The ecological health and water quality of the Napa River Watershed have a direct linkage to the Bay-Delta system. The Napa River Watershed provides important habitat for many CALFED Program species of concern.

The focus of the Napa County Resource Conservation District has been development of local watershed stewardship groups that are broad-based, multi-interest groups open to all who live or work in a local tributary watershed. This project works with two watershed groups to conduct baseline watershed assessments, create adaptive watershed management plans, and promote community-based watershed monitoring efforts to address a broad range of ecological, biological, and social values in the watersheds.

Sulphur Creek and Carneros Creek are important tributaries of the Napa River. By facilitating management of these two watersheds, the project is building a common base of understanding by assessing the physical, ecological, and social conditions of the watersheds and, using a scientific approach, defining priorities for restoration that are socially acceptable. In so doing, the project will improve the connection between watershed processes and land management in the Sulphur Creek and Carneros Creek Watersheds.



Technical fieldwork (fish habitat surveying) in progress.

Contact Information

Bob Zlomke
Napa County Resource Conservation District
1303 Jefferson Street, Suite 500B
Napa, CA 94559
Telephone: (707) 252-4188
E-mail: bob@naparcd.org



Steelhead captured and measured as part of CCWRAP's fish trapping and identification efforts.

Award Amount

\$200,000

Watershed

Codornices Creek Watershed

County

Alameda County

CALFED Region

Bay Region

Legislative Districts

US Congress: 13

State Assembly: 15, 16, and 18

State Senate: 9 and 10

Purpose

Assess conditions on Codornices Creek and the potential for restoration of salmonid passage and habitat, improve water quality, and promote community outreach and watershed education.

Project Goals

- Assess Codornices Creek's habitat and habitat restoration potential for salmonid recovery, particularly steelhead.
- Assess barriers and unstable bank sites and determine solutions and costs.
- Conduct community outreach and watershed education.
- Develop the Codornices Creek Watershed Restoration Action Plan.

Benefits to the CALFED Program

This project is focused on restoring habitat conditions for steelhead in the Bay Area's Codornices Creek. Steelhead is a species of high concern to the Ecosystem Restoration Program (ERP). The ERP Plan states that a major factor limiting steelhead populations in urban streams is development, including water diversions and barriers such as diversion dams, high water temperatures, and other water quality impacts from urban runoff. This project is working to address barriers such as these and seeking collaborative and locally driven solutions to overcome them. The project is providing benefits to both the local community and the CALFED Program.

Project Overview

Codornices Creek begins near the western edge of Tilden Regional Park in the heavily urbanized hills of Berkeley and flows downhill nearly 7 miles before entering San Francisco Bay just north of the Golden Gate Fields racetrack. The upper reaches of the stream are in the backyards of homes. Much of the lower reaches was paved over during the 1940s but has been re-exposed in the past two decades.

Restoration efforts by groups such as the Urban Creeks Council, the Friends of Five Creeks, and the Live Oak Codornices Creek Neighborhood Association have dramatically improved the health of the creek, to the point that the creek now supports a population of steelhead. However, much more work and restoration are still needed before steelhead can move up and down the stream with any annual certainty. There are old hanging culverts that can block migrating steelhead, and there are streambanks that are sloughing sediment and filling pools, which is smothering the stream's rocky substrate.

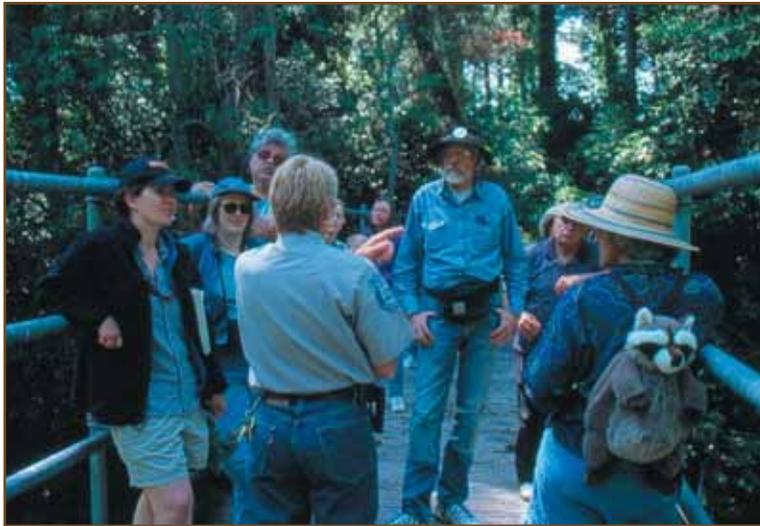
This project represents a collaboration of several community groups to assess the condition of Codornices Creek and to interest local government and other community members in the welfare of the creek and its steelhead population. This project assesses the stream's habitat and habitat recovery potential, including unstable bank sites and the current barriers to migration. Water quality impairment is also being assessed. The Codornices Creek Watershed Restoration Action Plan includes priority restoration actions to revitalize the creek. The project includes community outreach, watershed education, and a community monitoring program.



Volunteers conduct a depth survey along Codornices Creek.

Contact Information

Bill Kier
Urban Creeks Council
207 Second Street, Suite B
Sausalito, CA 94965
Telephone: (415) 332-8799
E-mail: wkier@pacbell.net



Participants at the Gardening for Wildlife Watershed tour.

Award Amount
\$608,132

Watershed
Multiple Bay Area Watersheds

County
Contra Costa, Alameda, and San Mateo Counties

CALFED Region
Bay Region

Legislative Districts
US Congress: 1, 7, 8, 9, 10, 12, 13 and 14
State Assembly: 7, 8, 12, 13, 14, 15, 16, 18, 19, 20 and 21
State Senate: 2, 3, 7, 8, 9, 10 and 11

Purpose

Develop and expand community watershed awareness programs to support informed watershed management decisions.

Project Goals

- Provide support for Bay Area citizen-based creek and watershed groups.
- Foster strong community watershed programs to support improved watershed management.
- Present watershed education material and workshops to develop community involvement in reducing adverse impacts on water quality and restoring the ecosystem.
- Implement Gardening for Wildlife workshops to provide residents with information on how to incorporate native plants into their home gardens, eliminate pesticides, conserve water, and reduce green waste.

Benefits to the CALFED Program

This project is achieving the Bay Delta Program's goals of improving water quality, increasing water use efficiency, and restoring habitat in the San Francisco Bay by creating partnerships with a wide variety of agencies, groups, and individuals interested in improving environmental health in the Bay Area, and by supporting outreach programs that lead directly to citizen involvement in the health of local watersheds. AOI's programs educate and involve citizens and local government in local restoration projects and water quality monitoring and engage the community in efforts to reduce water use and pesticide runoff by educating them about gardening with native species.

Project Overview

The Aquatic Outreach Institute (AOI) involves teachers and other members of the public in educating the community to encourage water quality and ecosystem protection and water conservation. AOI fosters partnerships and helps promote watershed awareness and stewardship. AOI's Citizen Involvement and Regional Outreach Program consists of four components, which involve outreach to educators, students, and the general public in Contra Costa, Alameda, and San Mateo Counties.

Support for Specific Creek Groups. AOI provides support for local Watershed Awareness Programs in the form of publicity, meeting organization and facilitation, newsletter publication, restoration project coordination, and other support.

Regional Support for Bay Area Citizen-Based Creek and Watershed Groups. The Regional Project Assistance Grant Program offers local groups service grants to support education, capacity building, and event coordination. AOI also coordinates regional events, publishes a regional newsletter "Creeks Speak," and is developing web-based resources.

Watershed Education Workshops. AOI provides additional support for teachers and students involved in "Kids in Creeks," "Kids in Gardens," and "Watching Our Watersheds" workshops; participants receive classroom visits, referrals, grant-writing assistance, and other resources. Through these workshops and follow-up, thousands of students each year learn about pollution prevention, organic gardening, watershed ecosystems, and other topics.

Gardening for Wildlife Program. This program includes workshops, restoration workdays, and watershed walks/plant collection events designed to interest gardeners in incorporating native plants into their gardens, reducing chemical inputs, and conserving water.



Volunteers work to clean up the area around Baxter Creek.

Contact Information

Sharon Farrell
Aquatic Outreach Institute
1327 South 46th Street, #155
Richmond, CA 94804
Telephone: (510) 231-9507
E-mail: sharon@aoinstitute.org