

# Tehama County Resource Conservation District



Bi-Annual Report  
July 1, 2005—June 30, 2007





## **Board of Directors**

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Vicky Dawley, District Manager  
Tom McCubbins, Watershed Coordinator/Project Mgr  
Laurie Kehrer, Watershed Specialist  
Lisa Miller, Watershed Technician  
Cathie Benjamin, GIS Analyst  
Randy Cousineau, GIS Analyst  
Stacey Goggin, Controller

## **Office**

2 Sutter Street, Suite D  
Red Bluff, California 96080  
Phone: 530.527.3013 x3  
Fax: 530.527.7451

## Introduction

The Tehama County Resource Conservation District (TCRCD) is a legal subdivision of the State of California, governed by Division 9 of the Public Resources Code. TCRCD's responsibility is conservation of the natural resources within its borders. It is governed by five Directors, appointed by the Tehama County Board of Supervisors; and non-voting Associate Directors, appointed by the District's Board of Directors. The board members are all local landowners who volunteer their time to represent the land users in the district, thus ensuring a local voice in natural resource issues. **The District is wholly funded by grants, donations and contracts. It receives no general tax revenues.**

By means of a Memorandum of Understanding with the Natural Resources Conservation Service, the District receives assistance carrying out its mandated responsibilities. Working together, and as needed with other agencies and groups, a coordinated effort is made to conserve and improve the natural resources of Tehama County.

### TCRCD Vision

A balanced use of the county's natural resources, where all land use decisions are socially acceptable, environmentally sound and economically feasible.

### TCRCD Mission

To assist citizens with managing, conserving and improving the natural resources of Tehama County.

## History

On May 26, 1987 the Tehama County Resource Conservation District was officially formed from the consolidation of the Corning (formed July 1945), Lassen View (formed May 1961) and Cottonwood (formed April 1956) RCDs. At the time of the consolidation, any parts of the Cottonwood or Corning RCDs that were in Shasta or Glenn Counties were detached from the new Tehama County Resource Conservation District. In September 2005, the Tehama County RCD merged with the Vina Resource Conservation District, located in the southeastern corner of the County. At the time of the merger, the small section of the Vina RCD that was in Butte County was detached and the Tehama County RCD became a county-wide district, excluding only the incorporated cities of Red Bluff, Corning and Tehama.

## Physical Description

The District contains approximately 1.7 million acres (92% of the county's acreage) and 36,930 people (63% of the county's population). There are various land uses in the district, including: irrigated and non-irrigated cropland, orchards, vineyards, dry cropland, rangeland, brushland and forestland. The district also covers a rapidly growing acreage containing rural housing. Many parcels of this type are developed, but large numbers remain approved but undeveloped.



Elder Creek in Western Tehama County

Land Use	Acres in District	% of District
Rangeland	800,000	42%
Forestland	550,000	28%
Brushland	185,000	10%
Cropland, irrigated	108,000	6%
Cropland, dry farmed	85,000	4%
Rural housing	27,500	2%

Agricultural land uses comprise the majority of the Tehama County acreage total. All major land uses have numerous natural assets: soil, wildlife, water, trees, vegetation, and air. Rural living, recreation, hunting, fishing and fuel harvesting can be integrated uses of the same base acreage.

The Sacramento River runs through the heart of the District, bringing with it issues of water quantity, quality and anadromous fish habitat. Most of the district is comprised of watersheds that flow into the Sacramento River. The District believes that the management, conservation and improvement of the county's natural resources are best achieved when approached at a watershed level.



Bend Ferry, Sacramento River at Bend -  
9 miles North of Red Bluff ca. 1910  
Special Collections Dept.  
Merriam Library, CSU, Chico.  
Donor Jeffrey Gans



Catching salmon for spawn hatchery,  
Los Molinos  
From the Berkeley Geography Collection,  
Magic Lantern Slides

On the east side of the District, along with numerous smaller watersheds, are the Battle, Paynes, Antelope, Mill and Deer Creek watersheds. These watersheds are in relatively healthy condition and several support significant populations of native anadromous fish. The Battle, Mill and Deer Creek watersheds also have active landowner groups in place and completed watershed assessments. TCRCD has funding for a Fire Plan for all of the watersheds on the east side of the county and a combined watershed assessment and management plan for those eastern watersheds with no active landowner group.

On the west side, the geology and soils together produce watersheds that contribute excessive sediment to the Sacramento River. The Cottonwood Creek watershed to the north has a completed watershed assessment and an active landowner group. South of Cottonwood Creek are the Reeds, Red Bank, Elder and Thomes Creek watersheds, along with numerous smaller watersheds. TCRCD is active in the southwestern watersheds with grants that fund a fire plan, a watershed assessment and a watershed management plan of these "Tehama West" watersheds.

In the summer of 2003, the TCRCD board, staff and agency partners undertook a comprehensive strategic planning process to develop a five-year plan. Five areas of concentration were identified in this planning process that were incorporated into its Annual Workplans for 2005-2006 and 2006-2007 : Land Use and Planning, Watershed Management and Health, Applied Assistance, Education and Outreach and Administration and Operation. The District's accomplishments in 2005-2007 in each area follow.

## Workplan Accomplishments

**Land Use and Planning** – TCRCDD recognizes the increasing pressures of urbanization and the potential loss of agricultural, ranch and open space lands in Tehama County. In order to address this issue, in 2005-2007:

- ◆ A member of the TCRCDD Board of Directors participated in the Tehama County General Plan Revision committee and presented regular reports on the committee’s activities at TCRCDD Board meetings.
- ◆ TCRCDD staff and directors attended the meetings hosted by the Tehama County Planning Commission for public input on the Draft General Plan. They made comments at the meetings and staff prepared written comments that included maps.
- ◆ The Board of Directors and staff reviewed plans, and made comments on proposed projects from the Tehama County Planning Department.

**Watershed Management and Health** – TCRCDD believes that natural resource management and conservation are best accomplished at a watershed level, where decisions are based on the interrelationship of soil, water, plants, animals and people. In order to maintain and improve the health of the upper watersheds and riparian corridors in Tehama County in 2005-2007, TCRCDD:

- ◆ **Hosted meetings** to present the final draft of the Tehama West Watershed Assessment and staff and board members attended local watershed group meetings.
- ◆ **Hosted 12 workshops** with a total attendance of 497 people. A new business was started in downtown Red Bluff as a result of the “Ag Tourism” workshop.

Workshop Title	Description	Attendance
Successful Composting	How to create and use compost	17
Healthy Trees	Cause of and solutions for diseases in oaks	33
Horse Keeping	Managing horse health and grazing	24
Ag Land Preservation	Tools for preserving ag land and open space	28
Profit for Small Acreage	Management and marketing strategies for small acreage landowners	34
Ag Tourism	Practical training for landowners to create new revenue sources for ag properties	18
Native Uses of Native Plants	Identification and uses of native plants	41
Solar & Wind Power	Use of alternative energy sources	40
Pondering Ponds	Planning, designing and construction of ponds	100
Landscape Design	Energy friendly landscape design	70
Organic Gardening & Fruit Trees	Growing and marketing organic products	72
Vernal Pools	How to identify and manage vernal pools	20
Total attendance		497



Profit for Small Acreage



Pondering Ponds



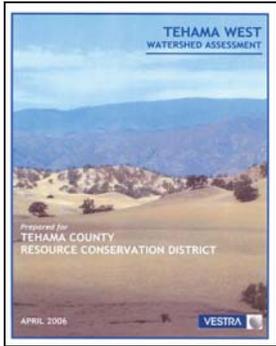
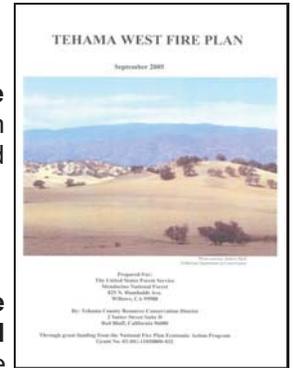
Landscape Design



Vernal Pools

In order to serve the watersheds in the District that have no local watershed group to represent them, TCRCD has been pursuing funding for projects in those watersheds. Those watersheds on either side of the Sacramento River that TCRCD is working in are collectively called either "Tehama West" or "Tehama East." In 2005-2007, TCRCD hired 2 GIS Analysts to assist with completion of projects in Tehama East and West, and:

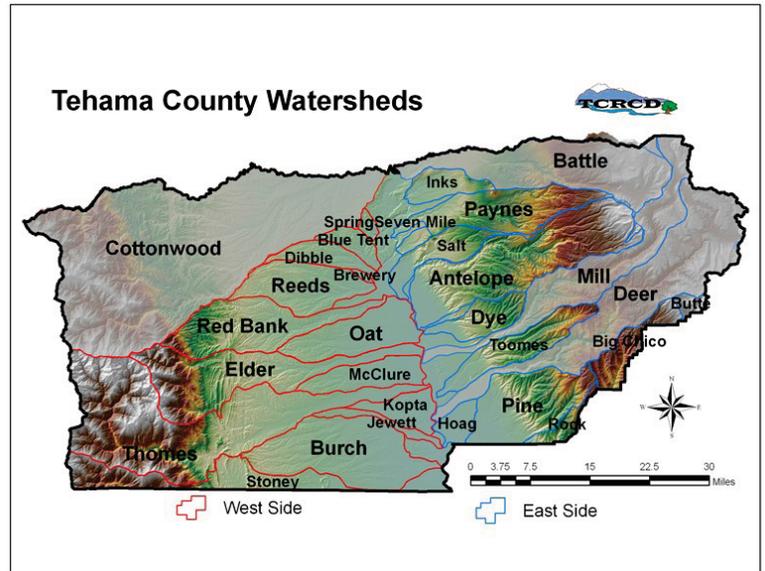
- ◆ **Completed the Tehama West Fire Plan and received funding to begin the Tehama East Fire Plan.** These plans document wildland areas within the County that are at considerable risk from catastrophic wildfire and identify current infrastructure that protects both developed areas and watershed resources.



- ◆ **Completed the Tehama West Watershed Assessment, started the Tehama West Management Plan and received funding for a combined Tehama East Watershed Assessment and Management Plan.** Once completed, these watershed assessment and planning documents will identify resource issues and problems found within the grasslands, chaparral and forestlands of the Tehama East and West watersheds. The management plan will be used to develop recommended management practices, project work and other initiatives that will improve both the environmental functioning and water quality of those watersheds. All completed plans are posted on the District's website: <http://tehamacountyr cd.org/>

**Further Watershed Management and Health Accomplishments:**

- ◆ **Conducted water quality sampling in the Tehama West watersheds,** including macroinvertebrate sampling, temperature, pH, conductivity, turbidity, settleable solids, total suspended solids and flow.
- ◆ **Monitored vernal pool health and Residual Dry Matter (RDM) in the Coyote Creek Conservation Area in the Tehama West watersheds.**
- ◆ **Coordinated the Tehama-Glenn Fire Safe Council,** which provided opportunities to develop and promote coordination and collaboration on fire related environmental issues that impact local watersheds.



- ◆ **Developed an on line map and database of fire and fuels management projects located within Shasta, Tehama and Glenn Counties.** Included are projects that are in the planning phase, in process, or have already been completed. In addition to protecting rural communities from catastrophic wildfire, the direct result of these projects include reductions in impacts to water quality, air quality and biodiversity within those watersheds of the Sacramento River located within Tehama County. <http://tehamacountyr cd.org/frppage.htm>
- ◆ **Worked with over 50 rain gauge volunteers** spread throughout the county. The information collected by these individuals has been incorporated into a database and map of rainfall amounts throughout Tehama County.
- ◆ **Surveyed elderberries in the Bend Area of Critical Concern for the Bureau of Land Management.**
- ◆ **Surveyed in the Red Bank Creek watershed for egg masses of the Foothill yellow-legged frog (*Rana boylei*).**

**Applied Assistance:** TCRCDD believes the health of our natural resources begins with the ability of private land stewards to apply conservation practices on their land. In order to support land stewards in the management and protection of their lands, in 2005-2007 TCRCDD:

- ◆ **Funded 12 cost-share projects** on private property throughout the District for a wide variety of projects. The table below describes the projects and their benefits to water quality in Tehama County.

Description	Potential Water Quality Benefit
Created shaded fuel break to protect timber from potential catastrophic wildfire in chaparral.	Reduced sediment load into Elder and Red Bank Creeks.
Purchased and set-up digital tape recorders to monitor bird songs as an indicator of the health of treated chaparral.	Reduced sediment load into Elder and Red Bank Creeks.
Fenced livestock out of reservoir and provided alternative water source.	Decreased nitrates, coliforms and phosphorus in reservoir in Red Bank Creek watershed.
Planted 2.63 acres of native grass.	Reduced sediment load into Red Bank Creek.
Converted irrigation system from flood to micro system.	Reduced pesticide and fertilizer use and water savings in Burch Creek watershed.
Constructed a rainwater catchment system for garden irrigation, planted native grasses and developed manure and grazing management strategies with fencing and compost piles.	Decreased nitrates, cryptosporidium and phosphorus into waterways in Reeds Creek watershed.
Applied essential mineral mixture to soil and bark of ailing oak trees and a prune orchard.	Reduced sediment load into creeks in various watersheds.
Installed rain gutters to direct runoff away from corrals and a compost system for horse manure.	Decreased nitrates, cryptosporidium and phosphorus into Grasshopper Creek.
Installed weather station in orchard to better gauge pesticide application and irrigation scheduling.	Reduced pesticide, fertilizer and water use in Elder Creek watershed.
Converted irrigation system from flood to micro system. Project located on non-level ground in Burch Creek watershed – identified as critical for Ag Waiver monitoring.	Reduced pesticide, fertilizer and water use .
Increased size of tailwater pond, fenced out riparian area, leveled drainage ditch and leveled field to plant perennial crop on dairy.	Decreased sediment, nitrates, coliforms and phosphorus into Rodeo Creek.
Fenced livestock out of riparian area and reservoir, installed windmill for alternative water source.	Decreased nitrates, coliforms and phosphorus into reservoir and into Brannan Creek.



Creating fuel break.



Installing windmill.



Planting native grasses with a no-till drill.

**Applied Assistance continued...**

◆ **Operated the Mobile Irrigation Lab:** Completed over 66 free evaluations of irrigation systems on approximately 2,441 acres. Systems evaluated were mostly micro-drip and micro-sprinkler with some flood and sprinkler systems. The crops evaluated were largely walnut, prune, almond and olive with some irrigated pastures included.



TCRCD staff completing irrigation evaluation .



Map of a section of Red Bank Creek showing treated *Tamarix*.

◆ **Completed an *Arundo* and tamarisk removal project** in cooperation with CSU, Chico in the Red Rank and Reeds Creek watersheds. The tamarisk project worked on 34 parcels on Red Bank Creek covering 16.7 km of stream channel and approximately 627 acres of streambed and banks. Total *Tamarix* eradicated was approximately 11 acres.

***An important part of TCRCD's annual accomplishments in the area of Applied Assistance comes from our partnership with the Natural Resources Conservation Service. Through this partnership TCRCD and NRCS:***

- ◆ Wrote 72 Conservation Plans for 29,763 acres.
- ◆ Applied conservation practices on 24,988 acres of grazing land.
- ◆ Applied conservation practices resulting in a savings of 607 acre feet/year.
- ◆ Applied conservation practices that reduced soil loss by 2,805 tons.
- ◆ Applied conservation practices to improve water quality on 9,025 acres.
- ◆ Applied conservation practices that improve irrigation efficiency on 901 acres.
- ◆ Applied brush management on 330 acres and forest stand improvement on 21 acres.
- ◆ Installed 68,197 feet of fence.
- ◆ Planted 137 acres of range, 33 acres of cover crops, 63 acres of pasture and 3,500 ft. of hedgerows.
- ◆ Installed 11,469 feet of pipe for livestock water and 9 watering facilities.
- ◆ Installed 3,690 ft. of irrigation pipe, micro-irrigation systems on 333 acres and 1 tailwater recovery system.
- ◆ Leveled 63 acres for irrigation and funded irrigation water management on 305 acres.
- ◆ Installed 2 wells, 2 pumping plants, 1 roof runoff structure and 1 grade stabilization structure.
- ◆ Installed 1 animal waste system on a dairy.
- ◆ Funded Integrated Pest Management on 10 acres.



A tailwater pond before excavation to increase its capacity.



Tailwater pond after excavation

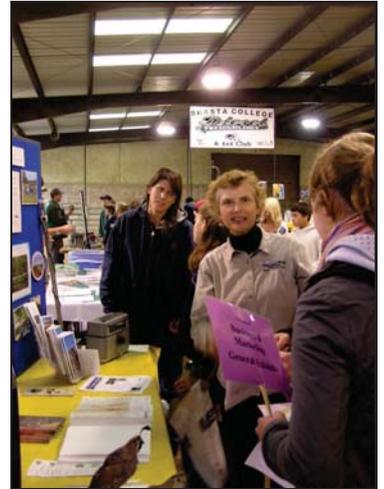
**Education and Outreach:** One of the most important services TCRCD has to offer is educational opportunities for the community. In order to increase community awareness of its programs and to offer a variety of educational programs, in addition to its 12 workshops, in 2005-2007 TCRCD:

◆ **Worked with schools on watershed education**

- ◆ Staff led Reeds Creek School in a greenhouse project and made presentations to the school's staff and board about TCRCD's willingness to assist the school in implementing a watershed education curriculum.
- ◆ Staff participated with the Student Landowner Education and Watershed Stewardship (SLEWS) program. With our help, students from Corning High School completed a restoration project at the Corning High School Farm along Jewett Creek.



- ◆ Participated in the Brickyard Creek cleanup along with students from Bidwell School.
- ◆ Participated in Education Day at the Tehama County Fair where all county 6th graders come to learn about science and natural resource issues.
- ◆ Hosted a booth at Career Day where county eighth graders learned about careers in natural resources and other fields.



Career Day for County Eighth Graders

Education Day at Tehama County Fair

- ◆ Worked with Tehama County 4-H on a "geo-caching" project.

◆ **Reached out to the community in a variety of ways:**

- ◆ Participated in the Salmon Festival, Watershed Awareness Day, the Dairyville Orchard Festival and the Sacramento River Discovery Center's Watershed Festival.
- ◆ Hosted a Day in the District at the New Clairvaux Winery where participants took a "virtual" tour of the District and its projects and feasted on locally grown products.
- ◆ Gave presentations to the Red Bluff Kiwanis Club and AARP about district activities.



4-H Geo-caching Project

- ◆ **Continually updated the website:** <http://tehamacountyrcd.org/>

◆ **Created a "GIS Services" program** for community groups and individuals to get mapping services.

- ◆ **Communicated with legislators regularly** on issues of importance to the District.

- ◆ **Produced 5 brochures** on a variety of topics useful to local residents and had them translated into Spanish by the Advanced Spanish class at Los Molinos High School.



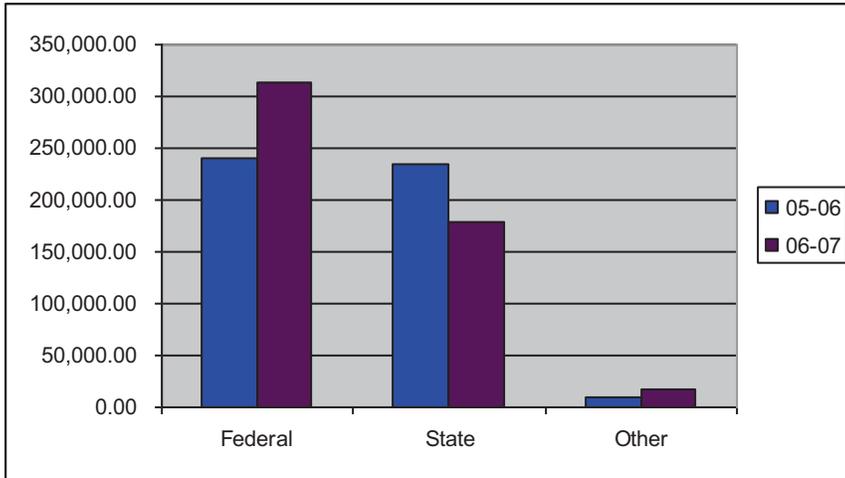
Day in the District at New Clairvaux Winery

Demonstrating the Watershed Model at the Salmon Festival



**Administration and Operation:** TCRCDD believes that in order to effectively serve the community, we must use responsible, economically feasible business practices. To accomplish this, in 2005-2007 TCRCDD:

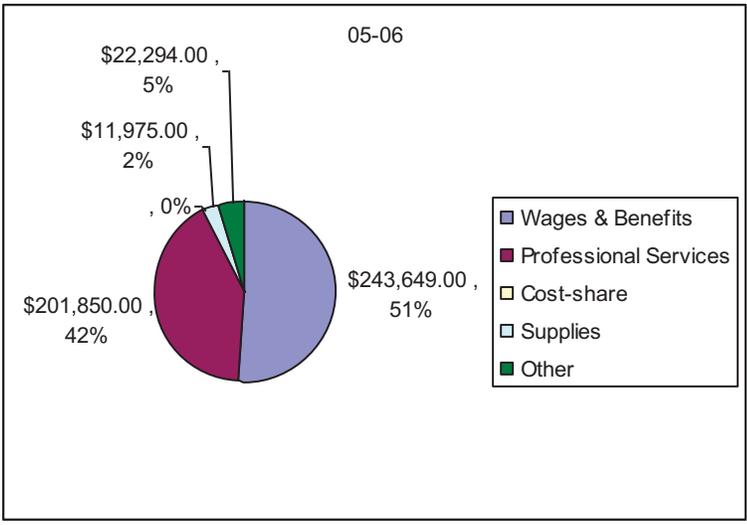
- ◆ Continued use of proper accounting procedures to maintain its books, revenues and expenses detailed below.



Revenues FY 2005-2006 \$486,494  
 Revenues FY 2006-2007 \$510,250

As noted earlier, the District is wholly funded by grants, contracts and donations and receives no general tax revenues. In the 2006-2007 fiscal year, the revenue from federal contracts increased with the addition of new funding for the Tehama East Fire Plan and increased funding from the Natural Resources Conservation Service and the Bureau of Reclamation for operation of the Mobile Irrigation Lab. Funding from the State of California stayed relatively constant with grants for preparation of the Tehama West Management Plan and the Tehama East Watershed Assessment and Management Plan.

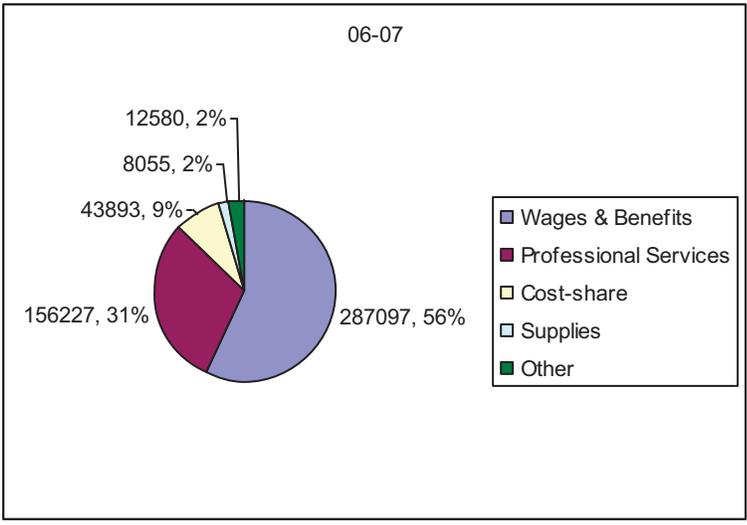
Roughly half of District expenses are for wages and benefits. TCRCDD maintains a staff of 6-7 part-time and full-time employees. The Professional Services category generally covers legal fees, audit and consultants the District engages to complete tasks that staff cannot complete. Expenses found in the Cost-share category are for the projects discussed on page 8 of this document.



Expenses FY 2005-2006 \$479,767

**Agencies/Organizations Funding TCRCDD Projects**

- ◆ CA Department of Conservation
- ◆ CA Department of Water Resources
- ◆ CA State Water Resources Control Board
- ◆ CA Fire Safe Council
- ◆ USDA Forest Service
- ◆ USDA Natural Resources Conservation Service
- ◆ USDI Bureau of Reclamation
- ◆ USDI Bureau of Land Management
- ◆ American Forests
- ◆ Resources Legacy Fund Foundation
- ◆ Sacramento River Watershed Program
- ◆ CA Association of Resource and Development Councils
- ◆ Tehama County Resource Advisory Council



Expenses FY 2006-2007 \$507,851

**Administration and Operation continued**

- ◆ Prepared monthly financial reports for the Board, adopted annual budgets in June and completed audits of each fiscal year.
- ◆ Reviewed Associate Directors and elected officers of the Board of Directors each year in July.
- ◆ Staff attended training in administrative issues including personnel policies.
- ◆ Developed workplans each year.
- ◆ Installed new internet connection and a server.
- ◆ Updated computer work stations on a 3-year cycle.
- ◆ Pursued and received funding for a variety of projects detailed below.

Funding Source	Purpose	Awarded Amount	Date Received
U.S. Bureau of Reclamation	Funding of the Tehama County RCD's Mobile Irrigation Lab	\$25,000	September 2005
Tehama Resource Advisory Council/ Lassen National Forest	Preparation of the Tehama East Community Wildfire Protection Plan	\$42,340	November 2005
California Fire Safe Council	Additional funding for the preparation of the Tehama East Community Wildfire Protection Plan	\$30,000	March 2006
CalFed	Preparation of the Tehama East Watershed Assessment and Management Plan	\$398,820	August 2006
Bureau of Land Management	Task order for the eradication of invasive plants and development of eradication strategies	\$23,000	September 2006
American Forests	Conifer and oak tree species planting	\$187,150	March 2007
Resources Legacy Fund Foundation	Lassen Foothills Fire Vegetation Mapping and Modeling Project	\$100,000	June 2007
Natural Resources Conservation Service	Funding of the Tehama County RCD's Mobile Irrigation Lab	\$34,000	April 2006 and 2007
Natural Resources Conservation Service	Assistance with Farm Bill administration	\$42,000	April 2006 and 2007
TOTAL		\$882,310	





For more information call 530.527.3013 x.3 or  
[www.tehamacountyrcd.org](http://www.tehamacountyrcd.org)



Tehama County Resource Conservation District