

# Feather River Coordinated Resource Management

PLUMAS CORPORATION

550 Crescent St., P.O. Box 3880 Quincy, CA 95971 (530) 283-3739

## 2010 Annual Report to Signatory Agencies



Feather River Coordinated Resource Management partners celebrate 25 years of successful watershed partnerships rafting the East Branch of the North Fork Feather River.

**February 2011**

- California Department of Conservation •California Department of Fish and Game •California Department of Forestry and Fire Protection •California Department of Parks and Recreation
- California Department of Transportation •California Department of Water Quality Control Board •California Department of Water Resources •Feather River College •Feather River Resource Conservation District •Natural Resource Conservation Service, USDA •North Cal-Neva Resource Conservation and Development Area •Pacific Gas & Electric •Plumas Corporation
- Plumas County •Plumas County Community Development Commission •Plumas National Forest USFS, USDA •Plumas Unified School District •University of California Cooperative Extension
- Salmonid Restoration Federation •Sierra Valley Resource Conservation District •Trout Unlimited
- U.S. Army Corps of Engineers •USDA Farm Services Agency •U.S. Fish & Wildlife Service

## Introduction

In 2010 the Feather River Coordinated Resource Management group (CRM) celebrated its twenty-fifth anniversary. Over the last quarter century the CRM has implemented a total of 116 projects. Of this total, 67 projects have been on-the-ground restoration, 13 studies/strategies, 19 planning/coordination projects, and 17 education projects. On-the-ground projects have treated approximately 47 miles of stream, directly restoring approximately 4,100 acres of meadow/floodplain and riparian habitat within the Feather River watershed. Although participation and levels of involvement of the CRM's twenty-four signatory partners have varied over the years, without them we would not be successful in implementing watershed restoration in the upper Feather River Watershed. All restoration efforts are possible only with the participation of partners and willing landowners. In these difficult economic times we acknowledge the difficulty for partners to be involved, but it is of utmost necessity during such times that we continue working together to protect and restore the upper Feather River Watershed.

This report summarizes the Feather River CRM's 2010 accomplishments, program activities and projects planned for 2011-2013. This is the sixth annual report to all signatory agencies of the Feather River CRM and interested stakeholders. This report serves as an account of accomplishments to all our participants. Your continued support has made all of these collaborative achievements possible. These are your accomplishments, contributing to and advancing your agency's mission. Please include CRM projects in your organization's progress reports. The Feather River CRM exemplifies what can be achieved by public and private entities supporting local communities to achieve mutual goals. For more detailed information, please visit our website at [www.feather-river-crm.org](http://www.feather-river-crm.org).

All projects, as well as general program outreach and coordination, have been funded from a variety of federal, state and local sources. Current state and federal budgets affect these funding sources in different ways. The 2009 state freeze on all bond funded grants resulted in a six month period in which CRM had no funding sources to maintain the program; however, through perseverance and partner support, new funding sources were secured for 2010-2012. We are hopeful that the CRM will be able to continue to secure new funding sources to support watershed health into the future. Other potential changes in 2012 to the organizational structure of Plumas Corporation, the non-profit fiscal agent for the CRM, may also impact future program budgets and funding.

### Budget Table:

Year	Total Program Expenditures <sup>1</sup>	State/Federal Funding	County Cooperative Grants <sup>2</sup>	Non-program Match <sup>3</sup>
2004	\$690,000.00	\$640,000.00	\$50,000.00	\$135,000.00
2005	\$990,000.00	\$740,000.00	\$250,000.00	\$135,000.00
2006	\$1,393,000.00	\$1,000,000.00	\$190,000.00	\$203,000.00
2007	\$1,089,394.00	\$806,870.00	\$247,828.00	\$34,696.00
2008	\$1,158,669.00	\$848,287.00	\$253,577.00	\$56,805.00
2009	\$415,903.00	\$303,580.00	\$85,197.00	\$27,126.00
2010	\$1,263,171.00	\$992,841.00	\$79,643.00	\$190,687.00
2011-12 (est.) <sup>4</sup>	\$3,773,579.00	\$870,320.00	\$2,528,456.00	\$374,803.00

Note: 2007 figures were slightly amended for adjustments in 2008.

<sup>1</sup>Does not include funds expended through partner contracts (i.e. PC Public Works Prop. 204 construction contracts)

<sup>2</sup>Collaborative Grants/Participating Agreements (Prop.50 IRWM, CalTrans, Plumas Watershed Forum, etc.)

<sup>3</sup>Direct partner project match contributions (private landowners, PG&E, QCSO, NFWF).

<sup>4</sup>Includes secured out-year funds and project applications awarded, but not yet contracted.



## Summary of Projects Completed in 2010

**Red Clover/Poco Creek Restoration Project (USFS)** - This project, located on Plumas National Forest (PNF) Beckwourth Ranger District, is adjacent to the CRM's 2006 Red Clover/McReynold's Creek and 1985 Red Clover Creek Demonstration projects, resulting in seven miles of contiguous restoration.

**Red Clover-Poco above Chase Bridge pre-project,  
April 17, 2009**



NEPA and CEQA analysis and permitting was completed in spring and early summer. Project construction began in early August and was completed the first week of November. Environmental analysis work was funded by Plumas Watershed Forum (\$12,600) and USFS/PNF (\$26,000). Implementation funding was provided through the State Water Resources Control Board by the Proposition 50 CalFed Watershed Protection Grant Program for \$1,169,650. Actual project construction costs were \$704,362.

**Red Clover-Poco above Chase Bridge post-project,  
February 20, 2011**



Due to higher than normal precipitation and snowfall following project construction, extended high flows throughout the spring, and the lack of time for vegetation to become well established before winter, the project sustained damage to 14 of the 31 plugs in early 2011. CRM staff have identified part of the problem was a failure to fully cut out a downstream pond edge for flood release adjacent to plug 25. This resulted in high flows over the plug at a lower

**Red Clover-Poco above Chase Bridge post-project,  
April 6, 2011**



stage than designed. Without a concurrent increase in downstream pond elevation this initiated a cut in the plug, which occurred during the January high flows. The flood release elevation for the pond adjacent to plug 23, which is the interface between Poco Creek and the main branch of Red Clover,

**Red Clover-Poco above Chase Bridge post-project,  
May 5, 2011**



could have been designed to a lower elevation. This elevation was designed and constructed conservatively to account for the complexity of the confluence zone between the two channels. Poco Creek delivered a very large surge of flood flow in the mid-March high flows and, exacerbated by the plug 25 cut, was able to cut through plug 23. The

combination of the two cuts generated an approximate 3 foot headcut, that under the very long duration of overland flows from mid-March continuing into May, was able work on and cut successive plugs. Prior to the headcutting, monitoring photos showed seamless flow across ponds and plugs regardless of depth of flow, as designed. It is expected that implementing the repairs and corrective actions agreed to by the Technical Advisory Committee this upcoming summer will prevent a recurrence of this damage. Sufficient funds remain in the grant contract to conduct these repairs, estimated at \$69,200.

The CRM has requested the SWRCB to amend the contract to use a portion of any remaining funds after the repair work is completed to help construct the Upper Dotta Canyon Restoration Project, located upstream of the Red Clover/ Poco project. A decision has not yet been made by the SWRCB. PNF will construct the headcut treatments on Poco Creek in 2011. Fencing, post-project monitoring and maintenance repairs will also be completed in 2011 by the CRM.

**Red Clover-Poco gully pre-project, April 17, 2009**



**Red Clover-Poco gully post-project, April 6, 2011**



**Red Clover-Poco gully post-project, May 5, 2011**



**Tertiary treatment project area, March 2011**

#### **Quincy Community Services District Wetland Project-**

This Proposition 50 project was funded through Plumas County's Integrated Regional Water Management Plan grant with the Department of Water Resources for \$253,561. Quincy Community Services District (QCSD) subcontracted out the project to the Feather River CRM. The project purpose was to expand their tertiary treatment capability. All planning, design, environmental analyses, and permitting work



were completed in 2008. Construction of berms within the emergency pond area to increase surface area for tertiary treatment was completed in the fall of 2009. In 2010, installation of a gate on the tertiary treatment pond area with a piped outlet to Spanish Creek with a diffuser was completed. Due to lack of reimbursement from Plumas County via DWR, remaining treatment of headcuts on Clear Stream has been postponed. QCSO had to move forward utilizing other funds on the expansion of tertiary treatment area and installation of the piped outlet and diffuser due to mandatory requirements by the State Water Resources Control Board for their National Pollution Discharge Elimination System (NPDES) permit.

**Sierra Nevada Range-wide Meadow Restoration Coordination-** In 2009 CRM staff, as well as others throughout the Sierra Nevada, were requested to provide input to the National Fish and Wildlife Foundation's (NFWF) Sierra Nevada Meadow Restoration Initiative Business Plan. The Foundation's Plan is to contribute \$10 to \$15 million over the next decade to meadow restoration projects, with a goal

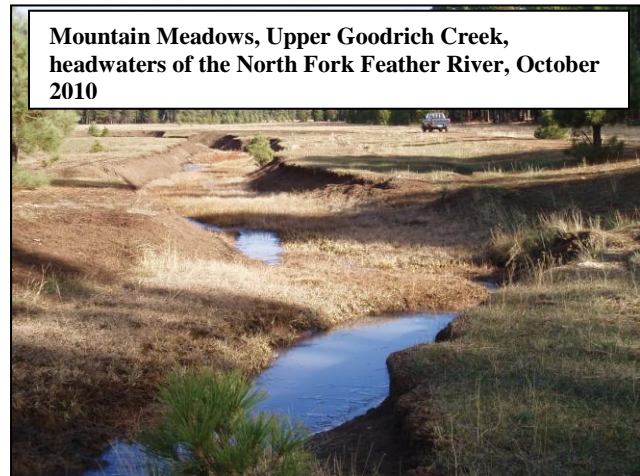


**El Dorado NF Indian Valley meadow restoration project area (north meadow), July 2010**

of improving water storage and wildlife habitat in Sierra Nevada meadows at a rate of 20,000 acres per year by 2014. Ultimately, the foundation hopes to leverage \$200 million for meadow restoration, which is an element in the State Water Plan. In helping to spread the technology of meadow restoration up and down the Sierras, NFWF approved re-directing \$51,000 from the CRM's Last Chance Phase II grant to assist in coordinating their efforts range-wide in 2010. This includes educating private and public landowners about meadow restoration methods and incorporating new funding sources, such as NRCS Wetland Reserve Program (WRP). To this end, the Feather River CRM has

given presentations to the Susan River Watershed Group, Central Sierra RC&D, and stakeholders within the Mokelumne River watershed; provided technical consultation services for meadow restoration

projects on the Tahoe NF with the Truckee River Watershed Council, Shasta-Trinity NF/McCloud Ranger District, and El Dorado National Forest; met with two landowners on three potential meadow restoration projects in the North Fork Feather River watershed at Mountain Meadows; and conducted a tour of the Red Clover Valley projects for Environmental Defense Fund staff working on the NFWF program to promote meadow restoration to private landowners. To facilitate greater access to existing and/or new funding sources CRM staff provided geomorphic, engineering and hydrologic calculation methods to local, area and state engineers with the USDA Natural Resources Conservation Service (NRCS), and hosted a two-day field workshop with NRCS engineers to discuss and exemplify design requirements of the several meadow restoration techniques. These efforts resulted in the California State Office of NRCS issuing interim Field Office Technical Guidelines for pond and plug restoration design in August 2010.

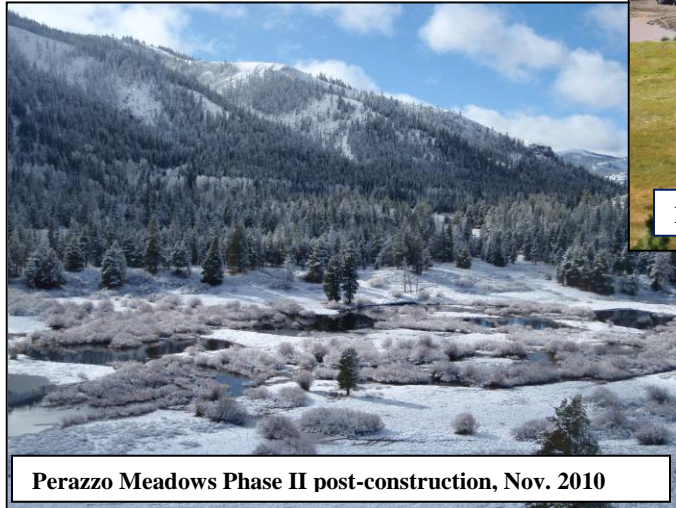


**Mountain Meadows, Upper Goodrich Creek, headwaters of the North Fork Feather River, October 2010**

Another \$15,000 was awarded to the CRM from Ducks Unlimited through the Intermountain West Joint Venture to focus similar efforts in the larger northeastern California region. This region includes Siskiyou, Shasta, Modoc, Lassen, Plumas and Sierra counties. The CRM has also subcontracted with the Pit River Resource Conservation District to facilitate meadow restoration outreach in this region.

**The following two projects are not FR-CRM projects; however, CRM staff assisted with design and construction in 2009 and 2010.**

**Perazzo Meadows Restoration Project (USFS, Tahoe National Forest)-** While this project was not a Feather River CRM project, CRM staff have assisted with design and construction. This three phased project on the Tahoe National Forest is a collaborative effort between multiple partners, including the Tahoe National Forest (TNF), Truckee River Watershed Council, Truckee



**Perazzo Meadows Phase II post-construction, Nov. 2010**



**Perazzo Meadows Phase II construction, August 2010**

Donner Land Trust, and Trout Unlimited. The first phase entailed restoration of about three miles of channel on the Little Truckee River, restoring 130 meadow acres in 2009. Randy Westmoreland, TNF Soil Scientist and Project Manager, helped alleviate CRM's budget shortfalls in 2009 by requesting construction supervision assistance from

CRM staff. Two CRM staff, Jim Wilcox and Leslie Mink, both provided added construction oversight while operating the re-vegetation heavy equipment during Phase I. In 2010, the second phase was constructed restoring another 155 meadow acres and about two miles of channel directly and several miles of secondary meadow channels immediately downstream of Phase I. Total project costs to date were approximately \$600,000 including planning and layout. Funding was provided by a Proposition 40 grant, which evolved into American Recovery and Reinvestment Act funds through the SWRCB and US Forest Service. Funding was also provided from the Herger-Fienstein Quincy Library Group Act (QLG) through the US Forest Service.

**Davies Creek Restoration Project (USFS, Tahoe National Forest)-** CRM Project Manager, Terry Benoit, supervised project construction on this meadow restoration project on the TNF in 2010. Requested by Randy Westmoreland, TNF Project Manager, Terry provided technical assistance to TNF Hydrologist, Sharon Falvey during project implementation. This project restored approximately 10 acres and a ½ mile of channel along Davies Creek. Project funding was provided by American Recovery and Reinvestment Act funds through the US Forest Service including funds from the QLG for about \$80,000.



**Davies Creek construction, September 2010**



## On-going Feather River CRM Programs and Projects:

**Watershed Monitoring Program-** A watershed-wide continuous monitoring program to examine effects of watershed restoration efforts at varying watershed scales was started by the Feather River CRM in 1998, collecting twelve years of data to date. The data are reviewed annually, and appear to show some increase in base flows and decrease in summer water temperature at some sites. The data will undergo preliminary statistical review in 2011. A direct link to restoration may be difficult, but the trends appear promising.

Data have been used by a variety of local entities to assess watershed trends and the effects of projects. With recently released information from Pacific Gas & Electric on climate change effects on air temperatures and precipitation patterns in the North Fork Feather River watershed, the continued monitoring efforts may help address larger concerns for all stakeholders, both within and below, the upper Feather River Watershed.

Eight continuous recording monitoring stations that collect streamflow and temperatures are located in the eastern two-thirds of the Feather River Watershed on public and private lands. One site (Indian Creek at the Taylorsville Bridge) also collects turbidity measurements.

Two stations have been removed from the CRM's monitoring program over the last few years. The Spanish Creek Station failed in 2009 and was replaced with an USGS station installed with funding from the Quincy Community Services District. The Sulphur Creek Station in the Middle Fork Feather River Watershed, was removed in 2006, and will be replaced in 2011 with funding from Plumas National Forest. The new station will be moved upstream to Sulphur Creek in the Whitehawk Ranch subdivision. Two other stations are to be installed in 2011 in partnership with the Plumas National Forest: Spanish Creek in Meadow Valley, and Rowland Creek. In collaboration with the Almanor Basin Watershed Advisory Committee, one station will also be installed in the North Fork Feather River Watershed when funding is secured. Additionally, project specific data are collected on numerous project sites throughout the watershed.

Lastly, the program monitors twenty-two stream condition inventory (SCI) sites that have been established throughout the watershed. Data collection on these reaches is targeted every two years pending available funding; however, they have not been re-surveyed since 2003. Funding awarded by the Plumas County RAC in 2010 will fund continuous station operation and SCI surveys in 2011. Plumas County was awarded a Proposition 50 Integrated Regional Water Management grant in 2007 (contract was not signed until 2009) administered by the Dept. of Water Resources that is supposed to fund program watershed monitoring and Last Chance Phase II project monitoring; however, the CRM has not yet seen reimbursement for any work accomplished to date. Securing monitoring funds has always been problematic, but the CRM has managed to keep the program afloat through a variety of sources over the years, including in-kind contributions from partners and citizen volunteers. A Citizen Monitoring component of the program works with local resident and student volunteers to collect data in Indian, Spanish, and Sulphur Creek watersheds. All program and project monitoring results can be found on the Feather River CRM website [www.feather-river-crm.org](http://www.feather-river-crm.org).

**Terry Benoit, CRM Project Mgr., measuring high flows on Indian Creek at Fournoy Bridge, March 16, 2011**



**CRM Education Program-** Established in 2004, the Feather River CRM Watershed Education Program focuses on two components: public outreach and school-based education. Seed money for the program was provided by the Department of Water Resources from 2004 through 2006. Subsequent funding has come from a variety of sources including the Plumas Water Forum (\$33,668), Plumas County RAC (\$34,290), Plumas County Board of Supervisors Title III funds (for 6th grade Plumas to the Pacific field trips), and the Sierra Nevada Conservancy (\$99,544). Similar to monitoring efforts, sustaining education

funding has been especially difficult in these challenging economic times. The CRM continues to seek and develop sustainable sources of funding through collaboration with partners. “WATERS” (Watershed Awareness through Education, Recreation, and Stewardship) is the committee that oversees the regional and collaborative educational efforts in the Upper Feather River Watershed.

In 2010, the CRM Watershed Education Program was a catalyst for a myriad of watershed-based learning opportunities. Local 6-12th grade students took part in the 2nd annual Youth Environmental Stewardship Summit (YESS) conference sponsored in partnership with Feather River College. More than 150 sixth graders followed the Feather River from its source to the San Francisco Bay and participated in monthly field trips that focused on their local sub-watershed. Led by CRM staff, over 20 Plumas and Sierra County teachers attended a Project WILD and Project WET workshop highlighting lessons intended to enhance their involvement in the Trout in the Classroom program.



**Students from FRC's Environmental Studies program investigate macro-invertebrates as part of World Water Monitoring Day with FRCRM Outreach Coordinator, Kristy Hoffman, November 2010**

Public outreach efforts included coordinating the Great Sierra River Cleanup with sites in Quincy, Greenville, Taylorsville, Portola, Graeagle, Lake Almanor, and Westwood; leading a World Water Monitoring Day effort with Feather River College Environmental Studies students, and hosting the Wild & Scenic Environmental Film Festival in Quincy. Additional public outreach support was provided by CRM staff in the form of classroom presentations and watershed-themed lessons for the Digging In gardening program, Girls Rite youth program, Feather River Outdoor School, Chester Public Library, and Chester Middle School's Natural Resources Field Day. CRM staff also contributed hands-on activities at the following community events: the Pioneer Quincy Elementary School Family Science Night, Quincy Earth Day celebrations, Homegrown Festival, Trail Daze Festival, and the Blackhawk Solar Cook-Off in Taylorsville.

**FRC Community Greenhouse-** Focused on re-vitalizing the community greenhouse located on the Feather River College campus, the CRM sought funding in 2007. With monies awarded by the Plumas County Board of Supervisors (\$14,000 under Title III of the Secure Rural Schools Act), and the Forest Service (\$5,000), and through collaboration with existing partners, including Department of Water Resources, U.S. Forest Service, Trout Unlimited and Feather River College the greenhouse became operational in 2008. In addition, native plant outings, native grass seed collections, and a Native Plant



**Jeanene Hafen leading the Edible and Medicinal Plant Walk, May 2010**

Workshop were held. In 2009, Greenhouse Manager, Terri Rust, successfully secured RAC funding for FRC to continue the greenhouse operations with match support from the Forest Service and CRM. Over 5,000 native plants were propagated in 2009 and used for watershed restoration projects.

In 2010, the Feather River College native plants propagation program continued and expanded greenhouse efforts with remaining RAC funds. Accomplishments in 2010 included: Collaborating with the USFS to propagate several thousand alders for four Plumas National Forest project sites, and successfully propagating two USFS-sensitive native plant species; growing nearly 5000 native plants, consisting of approximately 30 different species, used for various watershed projects; hiring an assistant Greenhouse Manager to help oversee all aspects of greenhouse operation and maintenance; holding a one-day workshop for local teachers in collaboration with the Feather

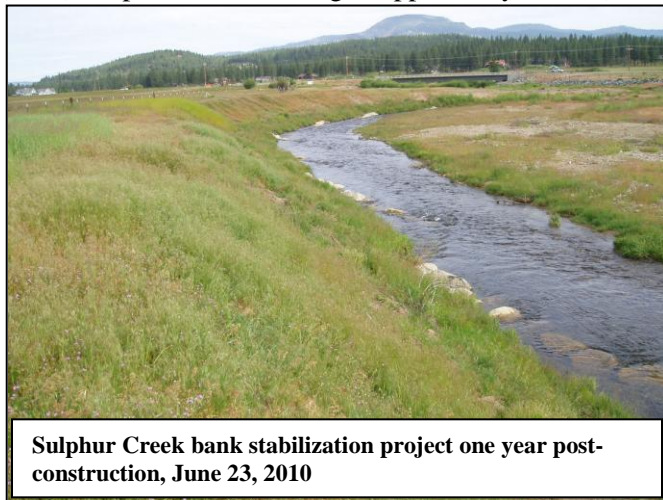


River Land Trust Learning Landscapes program, focusing on propagation of native plants and greenhouse logistics; sponsoring a walk/talk led by Jeanene Hafen on Edible and Medicinal Plants, identifying local native plant uses, traditional and modern; working with young women from Womens' Mountain Passages Girls Rite program teaching about native plants in the greenhouse and planting 18 black cottonwood saplings in a campus riparian area for wildlife habitat enhancement; hosting a day at the greenhouse for Womens' Mountain Passages summer youth program, Diggin' In where the girls made native wildflower seed balls and learned how different plants use various seed strategies to survive in nature; implementing a pilot project to work with local nursery, Gray's Flower Garden, providing them with native plants to sell to the community; and integrating use of the greenhouse with FRC classes involving students from FRC's Environmental Studies program. For example, the Watershed Protection and Restoration class planted 170 young riparian tree and shrubs from the greenhouse to create a wildlife corridor through the FRC campus to Spanish Creek, and the Intro to Wildlife and Fisheries class flagged and inventoried all the planted natives.

The FRC Community Greenhouse continues to seek and pursue ways to make the native plant propagation program self-sustaining. Improvements and expansion of the greenhouse facility was included in a proposal submitted to California State Parks and Recreation (Prop 84), expanding nursery capacity and adding interpretive native and medicinal plant gardens.

## Update of Projects Completed in 2009:

**Sulphur Creek Bank Stabilization Project-** In support of other restoration efforts in the Sulphur Creek watershed, this project was initiated upon landowner request in 2006 when the bank receded nearly 12 feet undermining the fence during high flows in the December 31, 2005 flood event. The project area, immediately upstream of the Highway 89 Bridge, is grazed by landowners on either side of the creek. The project area landowners, Gordon DePaoli and Tom Seeliger, worked with the Natural Resource Conservation Service to construct a fence in 2005 to restrict cattle access to the channel. They also funded environmental surveys (\$5,040) for the CEQA analysis. The adjoining landowner across the creek fenced their cattle from the creek in 2008. In 2008, the FRCRM received a Sierra Nevada Conservancy (SNC) Proposition 84 Strategic Opportunity Grant (SOG) for \$7,500 to complete the CEQA analysis and



**Sulphur Creek bank stabilization project one year post-construction, June 23, 2010**

obtain all required permits for construction. In 2009, \$50,000 was awarded to the CRM for implementation as part of an American Recovery and Reinvestment Act (ARRA) grant that funded the completion of the Prop 40 Middle Fork Feather River Complex suite of restoration projects. Construction along a 0.13 mile reach of channel was completed in September 2009 by Feather River Materials of Quincy, CA and entailed laying back approximately 500 feet of vertical bank to a 1:1 slope, reducing 200 feet of over-steepened terrace slopes upstream of the cut slope, building a floodplain bench, constructing eight boulder vanes to direct flows away from the

newly sloped banks, and planting the project area with willows and other native shrubs and seeds. In 2010, the project area was monitored for noxious weeds, and a small headcut in an irrigation runoff channel east of the creek was stabilized with vegetation (i.e. willow brush box).

Other Middle Fork projects that had some additional maintenance work and monitoring completed in 2010, included Long Valley Creek, Boulder Creek, Haskell Creek, Smith Creek, and Poplar Creek in Poplar Valley. Maintenance and monitoring involved noxious weed removal, re-vegetation (willow staking and/or seeding), headcut repairs using equipment on Long Valley and hand constructing willow brush boxes and willow staking on others, and measurement of water temperatures.

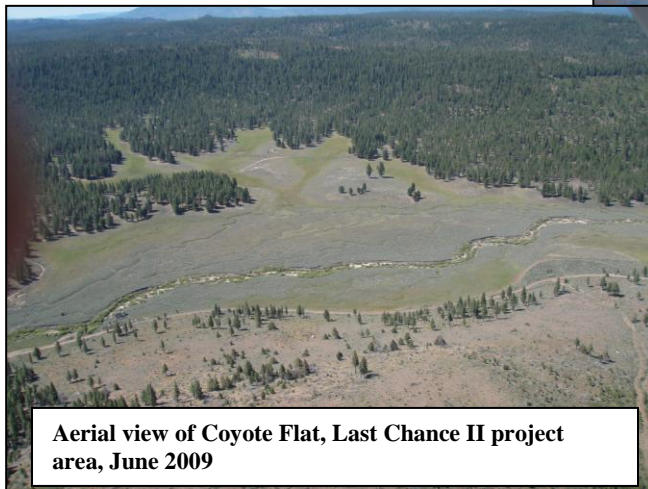
## **2011 Planned and Proposed Projects:**

Changes in project implementation funding mandates have altered our ability to fund and complete projects through a single funding source. Due to this shift, much of 2009 and 2010 have been spent on project development, completion of environmental analyses and review, and obtaining required permits, so projects may be eligible for implementation funds. Increasing and additional permit fees, as well as a disproportionate amount of time necessary to satisfy all regulatory agency requirements, have caused many projects started in 2009 to be underfunded for completion of the environmental processes. Some of these projects will require additional funds to complete the environmental review processes in 2011.

**Last Chance Phase II-** This project involves meadow restoration to eliminate the channel incision and stabilize functional tributary meadows on Plumas National Forest lands. In 2010, the private landowner chose to opt out of the restoration project. The modified Phase II project proposal would restore 542 acres of



**Headquarters Flat, Last Chance II project area, November 2010**



**Aerial view of Coyote Flat, Last Chance II project area, June 2009**

relic meadow and 7.8 miles of channel along Last Chance Creek on public lands. The project, with a budget of \$3,700,000 was submitted as part of Plumas County's Proposition 50 IRWM application. The County was awarded 66% of the funding in 2007, but did not receive a final signed contract from the Department of Water Resources until 2009. Project surveys, environmental analysis, design development, technical reviews, and permit applications began

in 2008, but were suspended in 2009 due to the state bond freeze and lack of reimbursement for work completed to date. In 2010, \$400,000 was awarded by the National Fish and Wildlife Foundation (NFWF) to assist in completing the CEQA and NEPA processes, design development, permits, and pre-project monitoring. To date the CRM has completed all environmental surveys, design and layout, one technical review of the proposed design, archaeological and botanical reports, and on-going monitoring in the Last Chance watershed. An additional \$349,000 will be available from NFWF for implementation, tentatively scheduled to begin the summer of 2012 pending completion of the NEPA process and permitting requirements. Construction would span two seasons, with completion planned for the fall of 2013.



**Barry Creek @ Hwy. 89 culvert, December 31, 2005**

**Sulphur Creek at Barry Creek -** Ranked as the highest priority site in the Sulphur Creek Watershed Assessment, Sulphur at the Barry Creek confluence has been on the CRM's list of priority projects since 2006. In 2007 the CRM received \$10,000 from the Highlands Management Group of Whitehawk to complete field surveys and develop project design proposals necessary to begin the environmental analysis process for Barry Creek and Whitehawk

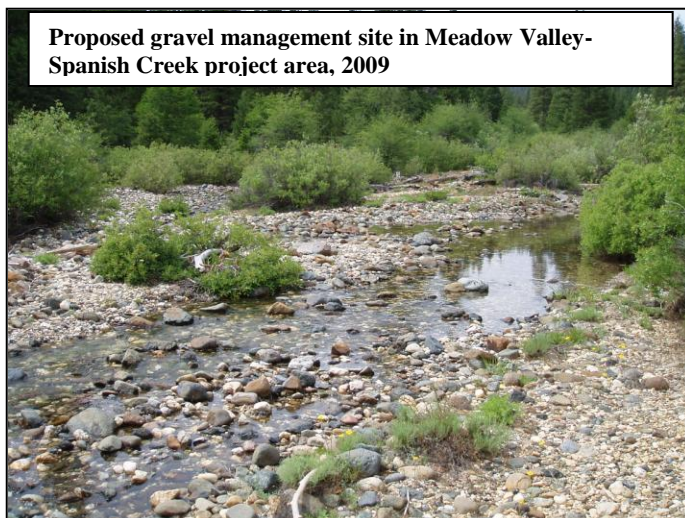


Ranch project areas. One year later, the CRM secured \$19,530 to complete the environmental surveys, CEQA and NEPA analyses, and permits for the Barry Creek project through a Sierra Nevada Conservancy (SNC) Proposition 84 Strategic Opportunity Grant (SOG). The CEQA and NEPA work and permit applications were started the winter of 2008/2009, but the state bond freeze stopped all work from December 2008 through September 2009. Completion of the environmental analysis was further delayed due to concerns with the project design by the Forest Service. In 2010, CRM staff worked with PNF hydrologists to develop a project design that satisfied everyone's concerns. The additional time to amend the design, increased permit fees, and remaining reports to be completed will exceed the remaining funds to complete the environmental process. Additional funding will be sought to complete the CEQA/NEPA process in 2011 to meet the SNC project funding agreement. Tentative project implementation is planned for August of 2012, pending approval of environmental documents and permits. Implementation funding was sought through the Caltrans Environmental Enhancement and Mitigation Program (EEM) in November 2008, but was not successful.

**Greenhorn Creek-** Restoration work along Greenhorn Creek by the Feather River CRM began in 1991. Two subsequent projects were implemented in the early 2000's. Responding to multiple landowner requests, current efforts were initially funded in 2007 through the Plumas County Board of Supervisors Title III funds. A total of \$19,550 was awarded for project development and preliminary data collection and analysis for a stream bank restoration project within American Valley. This effort included contacting other landowners (including the Forest Service), field data collection, data analysis, development of



conceptual designs, and coordinating with stakeholders. Due to multiple landowners along the channel, and the inter-connected irrigation systems, coordination with all landowners is a critical element in the development and conceptualization of this project. In 2009, RAC funding for CEQA/NEPA analysis, permits, and construction was awarded. Analysis work began in 2010, and a bank stabilization project reach on private and National Forest land is tentatively planned for 2011. A collaborative partnership between the CRM, Plumas County, and CC Myers (contractor for the Spanish Bridge replacement project on Hwy. 70) resulted in a donation of approximately 7,000 yards of fill and rock material, valued at \$98,000, for the proposed project. The material is currently being stored on County property near the Gansner Airport. Additional implementation funds will be sought for the remaining project reaches proposed for treatment.



### **Spanish Creek Restoration and Gravel Management-**

Following the completion of the Spanish Creek Assessment and Rehabilitation Strategy in 2006 (funded by Proposition 13 via State Water Resources Control Board), proposed sites identified for rehabilitation have been packaged into two project proposals. The first proposal focuses on upper Spanish Creek in Meadow Valley, primarily targeting passive gravel management techniques to deal with excess bedload that impacts channel function and stability downstream. The second proposal in

American Valley also deals with gravel management, but with greater emphasis on floodplain restoration and vegetation to stabilize eroding banks. Funding through the Plumas County Resource Advisory Committee PL106-393, Secure Rural Schools, Title II (\$67,000) provided implementation dollars for two demonstration projects, exhibiting bank stabilization techniques on the Dyrr property (constructed in 2006) and gravel management techniques, utilizing an instream vortex gravel sampler (operated between 2004-2006). Current efforts to move things forward have involved working with landowners to develop permanent monitoring cross-sections and secure site access for long-term gravel management. Plumas Watershed Forum funding in 2009 has provided \$82,400 for the project design and environmental analysis work for both the Meadow Valley and American Valley proposals. Environmental surveys and reports were completed for Meadow Valley in 2010. CEQA analysis and permit applications are currently being completed, as well as, the final design for the American Valley proposal. In 2008, an implementation proposal was submitted for Prop. 84 Urban Streams for the American Valley project, but was not selected. A second implementation proposal was submitted in early 2011 for the Meadow Valley project to the Army Corp of Engineers Sacramento Wetland Conservation Fund.

**Yellow Creek in Humbug Valley-** The Feather River CRM has been assisting PG&E and the Humbug Valley Subcommittee of the Ecological Resources Committee (ERC) in development of a potential

restoration project on Yellow Creek in Humbug Valley since 2006. The area upstream (north) of the county road is currently subjected to gully widening and active head-cutting on both the main stem of Yellow Creek and irrigation ditches that have captured perennial stream flow. PG&E ERC provided \$20,000 to complete initial field surveys and monitoring in 2006, and funded an additional \$77,000 in 2008 to develop conceptual project design alternatives, complete resource surveys, continue site monitoring, facilitate stakeholder meetings and seek implementation funding. In 2010 the developed conceptual design alternatives were presented to the ERC. A consensus decision could not be reached by the ERC due to concerns from



**Yellow Creek in Humbug Valley, March 2009**

California Dept. of Fish & Game (CDFG) over the potential spread of whirling disease. A whirling disease study funded through the U.S. Forest Service Storrie Fire settlement monies, with in-kind contributions from CDFG and UC Davis, has been approved and is scheduled to begin in 2011. In late 2010, PG&E provided another \$14,000 to resolve the project design issues and complete the CEQA and permitting processes. Implementation funding has been requested from the Army Corps of Engineers Sacramento Wetland Conservation Fund, with potential match funding from PG&E to use part of the project as mitigation for their Rock Creek and Cresta drum gate sediment excavation project.

**Upper Dotta Canyon-** This 253-acre headwater meadow on Red Clover Creek encompasses the

**Aerial view of Red Clover Creek- Dotta Canyon project area, June 2007**



ranchlands of the Goodwin Ranch and public lands managed by the Plumas National Forest. The Goodwin Ranch worked with the CRM in 2006 to implement the Red Clover-McReynolds project about 5 miles downstream of Dotta Canyon. The increase in forage production and re-establishment of a healthy trout fishery prompted the Goodwins to seek further assistance in restoring their property holdings in Dotta Canyon. Current channel conditions in Dotta Canyon are downcut six to eight feet below the meadow/floodplain surface. The project proposes to reconnect the channel to the



floodplain using the “plug-and-pond” technique. In 2009/2010, the CRM received \$109,700 for design development, environmental surveys, CEQA/NEPA analysis, and permit application work on Red Clover Dotta and Meadowview/Rowland Creek projects from the Plumas County RAC (called the Eastside Meadows Project). Environmental surveys, reports, draft NEPA/CEQA documents, permits, and implementation funding applications were completed in 2010/11. NEPA documents have been reviewed by the PNF-Beckwourth Ranger District and the CEQA document has been reviewed by Plumas County Planning Department. Pending incorporation of lessons learned from the Red Clover-Poco project per request from Beckwourth Ranger District, all documents should be available for public review and comment by mid to late summer 2011. Pending the final approval of environmental documents and permits, and the successful acquisition of implementation funding, the project is planned for construction in 2012. An implementation funding request was submitted to Army Corp of Engineers Sacramento Wetland Conservation Fund in January 2011. Other funding sources were sought, without success, in 2009 and 2010 through the North American Wetland Conservation Act, NRCS Conservation Innovation Grants, and National Fish and Wildlife Foundation Sierra Nevada Meadow Restoration Initiative.

**Rowland/Meadowview-** Located in a contiguous meadow system that straddles the watershed divide between Last Chance Creek, tributary to the North Fork Feather River (NFFR) and Rowland Creek, tributary to the Middle Fork Feather River (MFFR), these two projects cover both private and public lands. Rowland Creek has historically been a tributary to both watersheds through natural channel migration, and currently contributes the majority of its flow to the MFFR drainage, with flood flows contributing discharge to the NFFR.

Meadowview is the uppermost meadow on Last Chance Creek. Both channels, including tributaries, are currently downcut six to eight feet below the surface of the floodplain. The proposed projects would reconnect the channel to the floodplain using the “plug-and-pond” technique, restoring functionality to 256 acres of montane meadow floodplain and improving 2.9 miles of channel stability along Last Chance Creek, Rowland Creek and tributaries. The CRM received \$109,700 for design development, environmental surveys, CEQA/NEPA analysis, and permit application work on these projects and Red Clover Dotta (Eastside Meadows) in 2009/2010. Preliminary design work was completed in 2009, and environmental surveys and reports were done in 2010. Currently CRM staff is working with PNF staff and the landowner on final project design, NEPA & CEQA, and permits. Current RAC funding is not sufficient to complete the environmental analysis and cover all permit fees, in addition to pending efforts on Dotta Canyon. Additional planning funds will need to be secured, in addition to implementation funding to complete this project.

**Main Rowland Creek gully, October 2009**



**Red Clover Confluence Project-** Clover Valley Ranch was purchased by Beartooth Capital Investments in 2009. It is one of the largest tracts of private land in Red Clover Valley and takes in portions of Red Clover Creek, Dixie Creek, Horton Canyon, and Crocker Creeks. It is located between two parcels of Goodwin Ranch property, and if restored, would create 12 contiguous miles of restored channel with 3,200 acres of floodplain meadow in Red Clover Valley. In January 2010, Beartooth requested CRM assistance to develop a restoration plan on their property, providing \$75,000 to

**Red Clover Creek on Clover Valley Ranch, July 2010**



complete resource surveys and reconnaissance cross-sections. Neighboring landowners were asked if they wished to participate. All agreed, and surveys and cross sections were completed in 2010 on approximately 2,400 acres. A successful application for \$50,000 to the RAC was submitted and awarded and will be used in 2011 to fund project design, environmental permitting, as well as to seek additional project development and construction funding. Funding applications for permitting and construction were unsuccessfully submitted to the North American Wetland Conservation Act and National Fish and Wildlife Foundation Sierra Nevada Meadow Restoration Initiative in 2009/2010.

## **Coordination:**

Program coordination is vital to the CRM's ability to carry out restoration projects. With the assistance and contributions of our partners, CRM staff have coordinated and implemented over 80 restoration projects and watershed studies in the last twenty-five years, sharing this experience with other restoration practitioners. Every project requires coordination and collaboration between private landowners, regulatory and funding agencies, as well as other stakeholders. Project development typically involves up to two years of outreach, data collection, and analysis to develop the project goals, objectives, and design concepts. The majority of current funding sources available for project implementation require a project to be "shovel ready" before monetary support for construction will be awarded; meaning all state and federal environmental requirements must be met (i.e. CEQA- California Environmental Quality Act; NEPA- National Environmental Quality Act, and numerous permits) before the CRM can apply for implementation funding. Due to the inadequate financial resources available for completion of these regulatory environmental processes, the CRM's ability to efficiently complete a project from the planning phase through implementation has been substantially impacted over the last few years. Duplication of processes to satisfy both state and federal regulators, as well as increased permit fees and requirements have all amassed into considerably higher costs and required staff time to complete the project planning and development phase. To this end, the Feather River CRM has begun seeking Programmatic Agreements with regulatory agencies to streamline the environmental and permitting practices in relation to restoration activities.

Acknowledging that expanding outreach and restoration efforts increases visibility of watershed issues and helps build watershed understanding both locally and regionally, the need for effective and efficient coordination is essential. Landowner requests for assistance demand significant resources to provide quality service. All members of the staff, as well as agency partners, have responded to assistance requests as available; however, limited monetary support for these services strains existing budgets. Watershed monitoring of restoration efforts also continues to expand, as the breadth of understanding restoration effects grows and more projects are implemented. This is particularly relevant given recently expressed concerns from local water users that these projects should not harm existing water rights.

Coordination funding for the last two years has been limited to Proposition 84 Watershed Coordinator grant funds administered by the Department of Conservation, which only provide direct support to the Watershed Coordinator position, and Proposition 40 monies which were reauthorized under an American Recovery and Reinvestment Act grant in 2009 covered the remaining staff time for coordination efforts. Proposition 50 IRWMP grant funds for the Last Chance II project was expected to provide coordination dollars in 2010-2011, but the state's lack of reimbursement for work completed to date has made this an unavailable funding source at this time.

Direct project funding from state and federal entities has historically been a reliable source to secure project funding; however, given the on-going state budget crisis, and current federal funding woes, we have learned that maintaining a diverse funding pool is critical to sustaining program work. Several local/federal sources that have funded past projects have, or are completing their final funding cycles (i.e. Plumas Watershed Forum and PL 106-393 Secure Rural Schools Title II). Feather River CRM is continually in search of potential funding sources for coordination, monitoring, and project resources. The successful acquisition of funding from the National Fish and Wildlife Foundation (NFWF) in 2010 has been the sole source of reliable support for staff coordination in 2010-2011.



After the 2009 state bond freeze and continual decline in funding opportunities, Feather River CRM was forced to lay-off a total of five staff members for six months from January to June 2009. Monitoring work continued through that difficult funding period with the assistance of an AmeriCorp volunteer. Fortunately, with the NFWF funding secured in early 2010, CRM staff was able to bring the Monitoring Coordinator position back on board in January 2010. Request of two staff members to work outside of the watershed during the summer of 2010, in conjunction with increased volumes of field work resulted in the hiring of a temporary watershed technician (six months) during the field season (June-December) of 2010. Current staffing is projected to remain the same through 2011-2012.

2010/11 FRCRM staff consists of (5) full-time positions. These positions are as follows:

1- Project/Program Manager- Wilcox	80% Project funded/20% Coordination
1- Program Coordinator- Martynn	95% Coordination/05% Project funded
1- Project Manager - Mink	90% Project funded/10% Coordination
1- Project Manager- Benoit	90% Project funded/10% Coordination
1- Monitoring Coord.- Rockett	90% Project funded/10% Coordination

### Unfunded Project Requests:

Proposed Projects with no current funding	Potential Funding Sources
Fitch Canyon, upper Cottonwood Creek	NRCS Wetland Reserve Program (WRP); Landowner
Mountain Meadows Tributaries	NRCS Programs; North American Wetland Conservation Act; Landowners
Last Chance Charles-North (The Nature Conservancy, Lessee, Matley)	NRCS Conservation Innovation Grants (CIG)
Thompson Valley	Landowner; Natl Fish and Wildlife Foundation; North American Wetland Conservation Act
McReynolds Creek	“
Upper Dixie Creek	“
Humbug Creek @ Rick Joy's	Landowner; unknown
Sulphur Creek Complex - McKenzie Creek, McNair Meadow	unknown
• Sulphur Creek Roads/Plumas County Rd 114	unknown
• Yarrington Meadow, Wash Creek, Sulphur below	unknown
• Whitehawk, Calfpasture Creek, Mowhawk/Chapman	unknown
• Road Closure	unknown
• Poplar Valley	Landowner and Title II RAC
Spanish Creek at Bengard, Breschiani, & Pourcho	Landowners; unknown