



Through the Ringer and Back Out Again: Annual Report 2009-10

The RCD's mission is to support others' natural resource conservation efforts, always in partnership with other organizations and agencies. This year, we were only able to do this because many other organizations supported US, demonstrating the blessing of good partnerships, especially in hard times. The Fiscal Year started with all of the pains of recession, with the loss of staff and programs precipitated by the freezing of state grants in late 2008. While we prepared for the worst we conducted basic work, found new opportunities and managed to accomplish quite a bit with less than two full-time equivalent staff positions, thanks to our partners. Here's a short list of activities:

- Removed over 25 tons of waste from four rural dumping sites and installed nearly two miles of fencing to prevent future illegal trespassing and dumping.
- Supported and conducted weed management work for Cape ivy and French broom control on over 100 acres of riparian land and oak woodland in Carmel Valley and Big Sur.
- Prepared for renewal of the Monterey County Livestock and Land Program...now up and running!
- Started conducting irrigation evaluations for Santa Clara, Santa Cruz, and Monterey County growers
- Initiated an Integrated Watershed Restoration Program for Monterey County thanks to the RCD of Santa Cruz County and the State Coastal Conservancy

What's Inside:

- Forest & Ranch Roads Assistance Program
- Irrigation Evaluation Services
- Integrated Watershed Restoration Program
- Livestock and Land Program Returns!
- Vegetated Treatment Systems update
- Weed Management Projects

Education and Outreach:

- Updated the food safety co-management literature review and grower handbook
- Coordinated and led three 'firesafe' workshops in Big Sur, Pebble Beach and Prunedale
- Coordinated one rural road grading demonstration workshop south of Carmel
- Submitted grant proposals for Salinas River arundo treatment, Carmel Valley roadside fuel load reduction, and Big Sur River watershed planning.
- Co-led five community workshops for the Greater Monterey County Integrated Regional Water Management Plan
- Multiple presentations on water management and food safety co-management
- Presentations and letters to the Regional Water Quality Control Board regarding the Ag Waiver update process

Administrative and Public Accountability:

- Closed the books on over 5 years of grant-funded work
- Completed our 2008 and 2009 biennial audit
- Transitioned RCD bookkeeping to an in-house QuickBooks accounting system
- Developed our 2010-15 Strategic Plan
- Recruited four potential new directors and associate directors...three of whom are now on board.

We started the year wondering if we'd be closing shop and ended with new programs and new lines of work ahead for the district. Much of this was made possible by committed partners: the RCD of Santa Cruz County, the Natural Resources Conservation Service, the Monterey County Agricultural Department, the Big Sur Land Trust, and the Central Coast Ag Water Quality Coalition along with individual grant funders. See inside for updates on just a few of them, and see the back page for a summary of annual district finances for the number-crunching part of this report. For more information, please contact us for copies of our strategic plan and check out our website for program information and educational materials.

Assistance for Forest and Ranch Road Erosion and Drainage Problems

Unpaved rural road systems are now widely recognized throughout California as being one of the most significant and easily controlled sources of erosion resulting in sediment delivery into waterways. Excessive erosion and sediment delivery to stream channel systems reduces channel flood conveyance capacity and compromises wildlife habitat and water quality.

The most common and disconcerting problem encountered on dirt roads is the potential of erosion to close roads, cause injury, and compromise the health of terrestrial and marine habitats. Highly erosive soils, large winter rain events and the steep terrain of our watersheds combine to make our roads susceptible to high rates of erosion. Inadequately constructed and maintained roads within this environment continually add sediment to the waterways of Monterey County and the Monterey Bay National Marine Sanctuary.

The Resource Conservation District of Monterey County (RCDMC) has been assisting landowners with erosion and sediment issues on private properties in



Monterey County for decades, and has recently received funding to begin implementation of a Rural Road Technical Assistance Program. The program provides funding to provide private landowners with technical and cost share assistance to facilitate road maintenance and drainage assessments, as well as assist in the costs of implementing and constructing road improvement projects.

Working in partnership with the Natural Resources Conservation Service (NRCS) and private roads specialists, the RCDMC is now in the initial stages of assisting rural landowners with verbal and written assessments of dirt roads at no cost. The free professional assessments help identify problem areas and recommend cost-effective treatments.

Since its implementation in the fall of 2009, the Monterey County Rural Road Technical Assistance Program has hosted a rural roads workshop, met with landowners, and assisted the Garrapata Creek Watershed Council with completion of its 3-year-old road improvement project on Garrapatos Road.

In February of 2010, the RCDMC, Garrapata Creek Watershed Council, Pacific Watershed Associates, NRCS, and the Big Sur Land Trust hosted road maintenance crews/contractors, landowners, road association members, and rural road erosion assistance providers to a half-day workshop at Garrapatos Road off Palo Colorado Canyon. Attendees were given a rare opportunity to learn about the latest road management techniques and watch the practices being implemented step-by-step by a local grading contractor hired by the landowners from funds they received through a grant provided by the Dept. of Fish and Game. The workshop included an introductory session on road erosion/drainage management techniques followed by a tour of a private road that

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Who's Who

RCDMC Directors

Paul Binsacca, President
Benny Jefferson, Vice-President
Sherwood Darington, Director
Steve Cobb, Director
Melissa Duflock, Director
Rebecca King, Director
Traci Roberts, Associate Director
Joanna Devers, Associate Director

RCDMC Staff

Paul Robins, Executive Director
Rami Shihadeh, Program Manager
Dina Iden, Project Coordinator
Bryan Kriete, Weed Warrior

Natural Resources Conservation Service (NRCS)

Robert LaFleur, District Conservationist
John Warner, Soil Conservationist
Beau Schoch, Agricultural Engineer
Desideria Ramirez, Agricultural Engineer
Denis Rutenberg, Streams Engineer

Integrated Watershed Restoration Program (IWRP...not IRWMP)

IWRP's mission in Monterey County is to facilitate and coordinate projects to improve fish and wildlife habitat and water quality using a voluntary, non-regulatory approach. One of our primary objectives is to provide technical and financial assistance to local project leads to design and implement high priority projects selected by the IWRP agency Technical Advisory Committee.

In December 2008, the State Coastal Conservancy awarded a \$900,000 grant to the RCD of Santa Cruz County to work with the RCDs in San Mateo and Monterey Counties to establish an IWRP-type program in those counties as well as continue some of the IWRP work in Santa Cruz County (Phase 3). That work hit the ground in Monterey County in late 2009. IWRP Phase 3 in Monterey County includes two main components:

1) Work with local, state, and federal partners to establish a modified Monterey County IWRP program and provide technical and financial assistance for designs and

permits for 7-10 high priority restoration projects in San Mateo, Santa Cruz and Monterey Counties as identified by the IWRP TAC.

2) Initiate a local Rural Roads Erosion Control Technical Assistance Program based on the Santa Cruz Co. Model (see 'Roads' article, p. 2), conduct road assessments and design and permit 1-2 erosion control projects.

To this end, over the past year, we have started to compile master lists of priority restoration projects in Monterey county, developed and co-coordinated a Monterey County IWRP agency Technical Advisory Committee to discuss a number of high-level topics influencing restoration along

the Central Coast and to use this information to develop IWRP project priorities in order to select a few initial projects for IWRP Phase 3 design and permitting assistance, and develop a local technical advisory committee (TAC) for the Rural Roads Technical Assistance component and to prioritize areas for future road assessments.



Livestock and Land Program: Alive and Kickin'!

Livestock and Land has received additional funding and our program team is gearing up to start another round of fun filled, educational and community gathering activities.

Ecology Action has been awarded additional funding for the Central Coast through a California Prop 50 Ag Water Quality grant to continue and expand the Livestock and Land program through 2012. The program will continue in Santa Cruz, San Benito, South Santa Clara and Monterey Counties, with an additional focus of expanding the program throughout the Central Coast into areas such as San Mateo, Santa Barbara and San Luis Obispo Counties.

We've already hosted a 3-part workshop series in Monterey County in early November 2010 and will be offering a hands-on demonstration workshop in spring and are accepting applications for site improvement cost share.

Additional workshops will be held in San Benito, South Santa Clara and Santa Cruz counties. Stay connected and be on the lookout for upcoming dates and times!

Don't miss out! Our website is currently in the process of being updated. Be sure to check for upcoming events on our website at <http://www.livestockandland.org> and

get further associated to Livestock professionals, neighbors and fellow enthusiasts. The website provides local support contact information, program updates/news and useful publications related to Livestock & Land.

A second wing of the Livestock and Land Program focused on Carmel Valley (along with other 'Areas of Special Biological Significance

in San Mateo and Santa Cruz Counties) is expected to start in spring 2011 thanks to an additional grant garnered by San Mateo County RCD.

We'll keep you posted!



Vegetated Treatment Systems Update

RCDMC coordinated with local farmers and the researchers from the University of California at Davis, California State University Monterey Bay, and independent researchers to conduct thorough investigations and monitoring activities to determine the efficacy of vegetated treatment systems (VTS) in Monterey County. The study evaluated the effectiveness of two types of VTS: vegetated drainage ditches and vegetated ponds constructed on working agricultural operations by cooperating farmers with assistance by RCDMC. Researchers and monitoring teams evaluated the effectiveness of ditch vegetation for retaining and breaking down pesticides in agricultural runoff, leading to a decrease in toxicity to aquatic organisms. The project converted three existing drainage canals, ditches and basins into treatment wetlands to improve water quality of major, tributaries to the Monterey Bay, specifically the Salinas and Pajaro Rivers and the sloughs draining to Moss Landing Harbor.



At the VTS sites, specific aspects of channel hydrology and vegetation were modified to optimize the physical and chemical processes to reduce pollutant loads. Water and sediment samples were collected at inlets and at various stations within the VTS and were tested for toxicity to aquatic invertebrates. The samples were also analyzed to determine concentrations of pesticides, and the trends in these concentrations were analyzed relative

to location in the VTS.

Initial results indicate that vegetated treatment systems effectively reduce nutrients, sediment and pesticides in tailwater but not to the degree needed to meet regulatory requirements. Limiting factors were source water concentrations and inadequate residence time of water in the type of ditches used in the region. Many farmers in Monterey County can not accommodate high residence times due to tight production schedules, high costs of land, and many other issues including food safety concerns. RCDMC and its collaborators continue to test methods to improve vegetative treatment systems for adoption by

farmers in Monterey County, including combining treatment with materials such as polyacrylamide (PAM) and enzymes for pesticide breakdown such as Landguard™.

Use of Vegetated Treatment Systems can improve runoff water quality for certain parameters, such as fine sediment, sediment-associated pesticides, and moderate concentrations of nitrate.

However, certain pesticides and drainages with high nitrate concentrations will require other strategies. We thank the cooperating growers for their time, expertise, commitment of land and resources, and dedication to improving water quality along the Central Coast. Funding was provided in part by State Water Resources Control Board Grants and the Monterey County Water Resources Agency.

Irrigation Efficiency Program

In partnership with UC Cooperative Extension we are offering the following services to interested growers using drip, microsprinkler, sprinkler and furrow irrigation systems:

- Distribution Uniformity Evaluations: a snapshot of how uniformly water is applied during a single irrigation; and
- Irrigation System Audits: a 'system' check during a single irrigation of design, operation and maintenance of the irrigation system.

All evaluations include a summary report with recommendations for improving uniformity and operation of the irrigation system, and an in person consultation. This report can be used to guide system planning and improvements. It can also be a useful for demonstrating resource stewardship and enhancing competitiveness for USDA cost-share program applications.

These services are available to area growers thanks to a partnership with the Santa Clara County Farm Bureau, Santa Clara Valley Water District, UCCE and USDA NRCS.



Rural Roads, continued from page 2

had been stabilized, and then a live demonstration of a contractor implementing road treatments detailed in the road assessment report.

Case Study in Big Sur

The improvements completed on Garrapatos Road were the culmination of a decade of dedicated effort by the Garrapata Creek Watershed Council to assess and improve the condition of their watershed. The watershed, which is host to threatened steelhead trout, contains forty miles of rural roads in its 10.6 square mile watershed. The Garrapata Creek Watershed Council is made up of landowners, residents, property managers and others interested in the health of the creek and its tributaries.

Road assessments conducted in the Garrapata Creek Watershed during 2001- 2003 documented upslope erosion and provided a prioritized plan of action for erosion control and erosion prevention treatments. Recommended restoration activities to address sediment delivery to waterways from road erosion included

1. strategic outsloping of road surfaces and installation of rolling dips,
2. proper sizing and orientation of ditch relief culverts and other drains,
3. stabilization of side-cast road material with vegetation or appropriate geo-textiles,

4. stabilization of road cuts, and
5. end-hauling excavated material to areas that would not deliver the sediment to the creeks instead of the usual practice of side-casting the material over the edge of the road.

The recommendations focused on erosion control because erosion prevention and “storm-proofing” of rural road systems could provide immediate benefit to streams and aquatic habitat of the watershed at a relatively low cost. It was determined that virtually all future road-related erosion and sediment delivery in the Garrapata Creek Watershed is expected to come from one of three sources: the failure of cuts and road fills; erosion associated with stream crossings, and road surface and ditch erosion.

Although it will take years to completely assess the overall benefits of the project, it is estimated that the watershed council’s implementation of these recommendations will result in the prevention of over 22,000 cubic yards of sediment from potentially moving into to Garrapata Creek, providing lasting benefits to the watershed’s streams and aquatic habitat.

Many communities in Monterey County face similar rural road issues as those in the Garrapata watershed. The Garrapatos Road experience can serve as an example for improvements in other watersheds in the region.

Weed Management

Invasive plants on the Central Coast took a big hit in 2010 as the RCDMC initiated its weed eradication program with funding from the CA Department of Food and Agriculture, in partnership with the Monterey County Agricultural Commissioners office, and in collaboration with regional partners that included the California State Parks and the Santa Lucia Preserve in Carmel Valley. RCDMC staff assisted personnel from both entities with mapping, assessing and treating invasive plants on over 25-acres of riparian and woodland habitats at Andrew Molera State Park, Garrapata State Park, and several sites in the Santa Lucia Preserve. The RCD also assists Monterey



Iceplant pulling crew at Martin Dunes

County Weed Management Area partner organizations with monitoring and administering other projects

Target plant species include French broom, Cape ivy, jubata grass, ice plant, and arundo, among other noxious invasive plants that choke streams and native vegetation. RCDMC looks forward to continuing to develop partnerships by working with regional organizations to establish weed management goals, identify and prioritize species that interfere with those goals, assess control techniques, and develop and implement management plans.



Treating Cape ivy along the Big Sur River

