

## NATIONAL CONFERENCE ON AGRICULTURE & THE ENVIRONMENT A SUCCESS!

The 2007 National Conference on Agriculture & the Environment convened on November 7-9 at Asilomar Conference Grounds in Pacific Grove, California. A consortium of agricultural and environmental professionals, researchers and government agency staff with expertise in agricultural sustainability and natural resource protection took part, including 151 attendees, 53 speakers and 28 volunteers.

The three main conference themes were: **(1)** Innovations & Conservation--case studies in agricultural water quality protection; **(2)** Monitoring Symposium--the exploration of trends and data collection methodologies; and **(3)** Sustainability--the cross pollination of new ideas, approaches, and technologies. An additional session focused on the co-management of water quality and food safety.

In conjunction with the conference, AWQA hosted the Sip of the Sanctuary, a special evening of wine tasting and farmer recognition awards. The AWQA awards recognized six farmers for demonstrating exemplary environmental stewardship.

### 2007 AWQA Conservation Award Winners

#### Vineyard:

Bill Hammond, Jackson Family Wines

#### Rangeland:

Dean Bettcher & Joe Gonzales, Calero Ranch

#### Nursery:

Ron Terry, El Modeno Gardens

#### Berries:

Dutra Farms

#### Orchard:

George Bonacich, Bonacich Orchards

#### Other Field Crops:

John and Eda Muller, Daylight Farms



The Central Coast Agricultural Water Quality Coalition hosted the conference with grant funding support from the Community Foundation for Monterey County, Regional Water Quality Control Board Supplemental Environmental Funds, and a USDA cooperative agreement. Sponsors included the Central Coast Regional Water Quality Control Board, Natural Resources Conservation Service, University of California Cooperative Extension, Monterey Bay National Marine Sanctuary, Resource Conservation Districts, Monterey Bay Sanctuary Foundation, and local County Farm Bureaus.



## MAKING DATA MORE MEANINGFUL AND USEFUL FOR GROWERS

An innovative partnership between AWQA watershed groups and Central Coast Water Quality Preservation, Inc. is improving dissemination and interpretation of water quality monitoring data to make it more meaningful and useful for growers. Traci Roberts, watershed coordinator with the Monterey County Farm Bureau, and Sarah Greene, manager of the Cooperative Monitoring Program with Preservation, Inc. are working with growers in the Quail and Chualar watersheds to conduct confidential, on-farm monitoring and to present ambient water quality data at watershed group meetings. "We are bridging the gap between the information that is available at the bottom of the watershed and information that is most useful to the grower," stated Greene.

On-farm monitoring shows individuals the potential effects of their farming practices upon downstream, ambient water quality. Monitoring is provided only to growers who request it. By walking the land and sampling the water together, the grower, water quality analyst, and watershed coordinator can have a dialogue about what the data mean in terms of how the land is managed. Additionally, the watershed coordinator conducts grower meetings, where downstream data is presented in a meaningful context.

These partners are also informing private industry technical advisors about water quality regulations. "Bringing the local consultants in is good for water quality because they can use the information as they work with the growers on a daily basis," stated Roberts.

Growers on an estimated 90% of the Quail watershed area and on 60% of Chualar watershed are already participating. Roberts' and Greene's innovative work is providing a model for other watersheds to help growers improve water quality. Similar services are available in watersheds throughout the Central Coast, including Llagas, San Juan, Oso Flaco, and Santa Maria watersheds. For more information or to request confidential monitoring on your farm, contact **Sarah Greene** at 831-331-9051.



Land managers implemented many practices in Sanctuary watersheds with NRCS and RCD assistance in 2008, including:

- 18 miles of rural dirt roads treated to reduce sediment runoff
- 2,150 new acres of farmland planted with cover crops
- 34,715 new acres of rangeland managed with improved grazing techniques
- 2,440 feet of streambank erosion problems stabilized
- 3,100 feet of windbreaks and hedgerows planted

## RECONCILING FOOD SAFETY AND ENVIRONMENTAL PROTECTION

One of the greatest challenges to protecting water quality facing growers and resource conservationists is the need to reconcile perceived conflicts between food safety and environmental protection. Many growers face increasing pressure from auditors and buyers to remove vegetative and other conservation practices in the interest of food safety. The AWQA partners have taken pro-active leadership roles to bring scientific reasoning to food safety discussions, to foster collaboration, and to provide tools for food safety and water quality co-management in 2007-2008.

#### RESEARCH

- The Central Coast Ag Water Quality Coalition was awarded a \$1million Prop 40/50 grant by the SWRCB to *Investigate the Compatibility of Water Quality and Food Safety through Research and Implementation*. They installed over 25 water quality demo projects and are conducting two research trials with UCCE, CSUMB, and UC Davis to evaluate the effectiveness of water quality practices in reducing the concentration and migration of bacterial pathogens in irrigation tailwater. For more information contact Kay Mercer at 805-208-8039.
- The Resource Conservation District of Monterey County (RCDMC) surveyed growers to identify impacts of food safety guidelines upon environmental protection. They found that 91% of growers had adopted conservation practices, however, 21% of leafy green growers had taken out environmental practices due to food safety concerns and 88% of all growers had adopted at least one measure to actively discourage wildlife from cropped areas. To view survey results, contact the RCDMC at 831-424-1036 or visit <http://www.rcdmonterey.org/>
- UCCE investigated factors that affect E. coli growth and survival in agricultural soils.

#### EDUCATION AND OUTREACH

- NRCS/RCDMC conducted two trainings on the conservation aspects of food safety through Hartnell College to over 70 private sector food safety professionals.
- NRCS/RCDMC trained conservation field staff on food safety considerations for conservation planning.
- AWQA hosted a Food Safety & Water Quality Co-management Conference in San Luis Obispo and an additional food safety track during the 2007 National Conference on Agriculture and the Environment.

#### ASSISTANCE

- Revised the RCDMC Conservation Technical field guide to include food safety considerations.

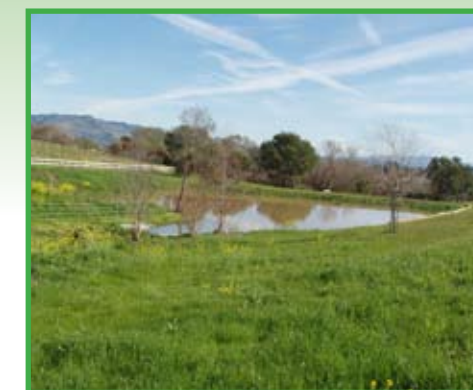
#### REGIONAL COORDINATION

- Coordinated the Farm, Food Safety, & Conservation Network- a working group that supports ag industry efforts to reduce food safety risks through methods which also minimize or avoid impacts to water quality, wildlife and habitat. Visit [www.awqa.org/networkwiki](http://www.awqa.org/networkwiki)

## PERMIT COORDINATION HELPS

Conservation projects on rural lands are often held up due to the costly and time-consuming process of obtaining permits from multiple agencies. By streamlining the permit process and coordinating conservation technical assistance, AWQA partners are working with small-scale and large-scale farmers alike to encourage installation of conservation and restoration practices across Sanctuary watersheds. For example, Sustainable Conservation assisted the NRCS and RCD of Santa Cruz County in developing a Countywide Partners in Restoration Permit Coordination Program. This program enables landowners to quickly and effectively obtain permits from seven agencies for the installation of certain conservation practices.

One example of a landowner who has benefited from permit coordination is the operator of a diversified 7-acre organic farm in Watsonville who sought assistance from the NRCS and RCDSCC to address issues such as pesticide drift and erosion from neighboring properties. The NRCS designed a sediment basin, grassed waterway, and a water and sediment control basin system to manage large quantities of sediment and improve runoff water quality from upper-watershed agricultural areas. This project also protects a culvert crossing and enhances habitat for wetland bird species. After construction, the disturbed area was hydro-seeded with an approved erosion control mix and the grassed waterway was hydro-seeded with red fescue (molate). The RCDSCC in conjunction with Community Alliance with Family Farmers also planted a hedgerow on the farm boundaries to promote beneficial insects and to minimize pesticide drift. All necessary permits were quickly obtained through the Santa Cruz Countywide Partners in Restoration Permit Coordination Program.



By the end of 2008, the 4th year of program implementation, the RCD of Santa Cruz County and NRCS reached a cumulative total of 47 projects completed under the Countywide Partners in Restoration permit coordination program restoring 76.5 acres of riparian/aquatic habitat and opening 16 linear stream miles for the migration of salmonids.



PARTNERING WITH INDUSTRY TO IMPROVE  
WATER AND NITROGEN MANAGEMENT IN LETTUCE

Lettuce is the main vegetable crop in the Salinas Valley, accounting for almost half of the 320,000 vegetable acres produced annually. An average of 18 acre-inches of water and 200 lbs of fertilizer-nitrogen are used in the production of an acre of lettuce in this region. Because lettuce is grown on much of the acreage on the Central Coast, increasing the efficiency of water and fertilizer use of this crop could have large impacts on water quality, by reducing irrigation run-off, nitrate loss, and conserving ground water.

Although small field trials have demonstrated that better irrigation and nutrient management can reduce water and nitrogen use in lettuce, growers have been reluctant to try these methods on a large scale due to risk of crop loss. UC Cooperative Extension Advisors Michael Cahn and Richard Smith, working with growers and Fresh Express, a major lettuce handler and shipper, conducted three trials in romaine and iceberg lettuce to demonstrate practices to reduce water and nitrogen inputs on a commercial production scale in 2008. Using weather-based irrigation scheduling and the quick soil nitrate test they showed that commercial lettuce crops could be produced using about 12 acre-inches of water and 100 lbs of fertilizer nitrogen without significantly reducing yield. In two of the trials, product quality was also enhanced in the reduced input plots. The trials demonstrated that replacing fertilizer and water inputs with better management was an effective strategy to reduce production costs and improve water quality. For more information contact Michael Cahn at 831-759-7377.



UCCE Launches Farm Water Quality Newsletter

Farm Water Quality Short Course participants asked for more information on integrating environmental quality with crop production practices and UCCE listened, launching the quarterly electronic newsletter “UCCE Farm Water Quality News.” This newsletter provides updates on events, regulations, and research, plus a technical tip. To subscribe for online delivery notifications of newly posted editions, visit <http://ucanr.org/fwqpnewsletter-reg>. You can download quarterly issues from county Cooperative Extension Websites. If you lack access to the internet and wish to receive the newsletter, contact your county UCCE farm advisor or Mary Bianchi at 805-781-5949.

AWQA CONTACTS

Website [www.awqa.org](http://www.awqa.org)  
More local contact info available at <http://www.awqa.org/farmers/workwith.html>  
Calendar of events and continuing ed: <http://www.awqa.org/involved/workshops.php>

Regional Contacts

**Monterey Bay National Marine Sanctuary**  
(AWQA inquiries):  
Lisa Lurie, 831-647-4219

**Resource Conservation Districts** (Technical Assistance, education, grants permit coordination):  
Marti Johnson, 805-610-1044

**Central Coast Agricultural Water Quality Coalition** (Producer-directed programs, watershed coordination): Kay Mercer, 805-208-8039

County Contacts

**Monterey County**  
NRCS: Robert LaFleur  
831-424-1036 x101  
RCD: Paul Robins  
831-424-1036 x124  
UCCE: 831-759-7350  
Farm Bureau: Traci Roberts  
831-751-3100

**San Benito County**  
NRCS: Bob Rohde  
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Farm Bureau: MaryEllen Dick  
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**San Luis Obispo County**  
NRCS: Margy Lindquist  
805-434-0396 x102  
Upper Salinas-Las Tablas RCD: Don Funk  
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**UC Cooperative Extension**  
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**USDA Natural Resources Conservation Service**  
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**San Mateo County**  
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UCCE: 408-282-3110  
Farm Bureau: MaryEllen Dick  
831-786-9225

**Santa Cruz County**  
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UCCE: 831-763-8040  
Watershed Coordinator:  
Chris Goodson  
831-227-5404

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AWQA

Agriculture Water Quality Alliance:  
Protecting the Waters & Watersheds of the  
Monterey Bay National Marine Sanctuary



ACCOMPLISHMENTS 2007 - 2008



INTRODUCTION

The Central Coast of California abounds in natural resources. Its rugged coastline and rolling valleys support a diverse, \$5 Billion dollar agricultural industry that produces more than 200 crops. The region is also home to the Monterey Bay National Marine Sanctuary – the largest national marine sanctuary in the United States. As land use intensifies in this rich but fragile landscape, the protection of water resources grows increasingly urgent. Farmers are up against a number of challenges to stay viable, comply with regulations, and protect natural resources. In response to these challenges, farmers and agencies on the Central Coast have formed the Agriculture Water Quality Alliance (AWQA).

AWQA (pronounced “aqua”) is a regional partnership working towards the following vision: “Together we will protect and enhance water in the Monterey Bay National Marine Sanctuary and the adjacent watersheds while sustaining a world class production agriculture region through voluntary collaboration with managers of agricultural and rural lands.” The AWQA partnership harnesses a broad range of expertise, bringing together growers, local Farm Bureaus, technical advisors, university researchers, resource conservation agencies, and non-profit agricultural and environmental organizations. What’s unique about AWQA is our focus on industry-led initiatives and collaborative solutions. Through AWQA, agency partners listen and respond to grower concerns to prioritize activities.

2007-2008 was a successful period for AWQA partners. Agencies responded to grower needs by addressing barriers created by food safety and permitting issues. Growers responded to science by collaborating on field trials and water quality monitoring. This report highlights just some of the many accomplishments of the AWQA partnership during 2007-2008.

