

The Central Coast of California abounds in natural resources. Its ragged coast line and rolling valleys support a diverse, \$5 Billion dollar agricultural industry that includes more than 200 crops. The coast 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 and challenging. 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 collaborative effort to adopt conservation practices that improve land management in watersheds that drain to the Monterey Bay National Marine Sanctuary. Five key partners participate in this effort:

- Monterey Bay National Marine Sanctuary (MBNMS)
- USDA Natural Resources Conservation Service (NRCS)
- local Resource Conservation Districts (RCDs)
- University of California Cooperative Extension (UCCE)
- Central Coast Agricultural Water Quality Coalition (Farm Bureau Coalition).



2005: A SUCCESSFUL YEAR FOR AQWA

AWQA

AGRICULTURE WATER QUALITY ALLIANCE

**Protecting the Waters
& Watersheds of the
Monterey Bay National
Marine Sanctuary**

AWQA also works closely with university researchers and non-profit agricultural and environmental organizations.

In 2005, AWQA was awarded the Governor's Environmental & Economic Leadership Award for Ecosystem and Watershed Stewardship. More information about AWQA and a more detailed report can be found on our website at www.awqa.org.

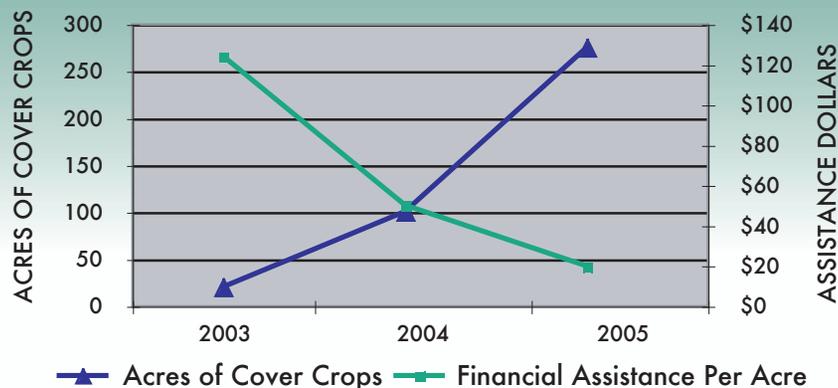
“Ambassadors of Conservation”

Farmers in San Mateo County are spreading the word about the benefits of cover crops. Organized by the Farm Bureau these “Ambassadors of Conservation” hosted demonstration projects to teach other farmers how to protect water quality while still meeting their farm production goals. Their efforts were so successful in bringing new adopters onboard that the planted acreage of cover crops doubled in 2005 to over 275 acres.

Farmers up and down the Central Coast continue to invest more of their own money in conservation practices that protect water quality because conservation pays for itself through better crops and an improved environment. In addition to cover crops, other conservation practices that are catching on with Central Coast farmers include:

- **low-tech approaches to stabilizing gullies**
- **grassing farm access roads**
- **improving irrigation efficiency**

Increasing Cover Crop Use with Decreasing Financial Assistance

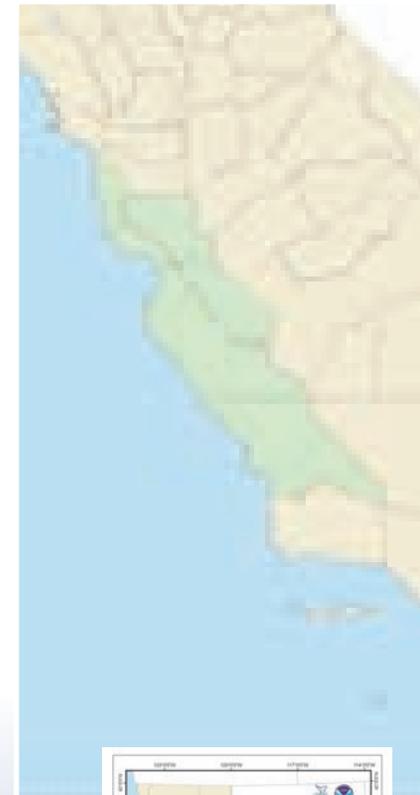


An increasing number of farmers use cover crops, investing more of their own money with less reliance on outside financial assistance. The above graph reflects spending on cover crops in San Mateo County.

“Local Farmers, Local Agencies, Good Solutions”

The State of California has recently initiated regulation that tightens the rules on agricultural runoff. Farmers, environmentalists, and agencies on the Central Coast joined forces with the Regional Water Quality Control Board to meet the challenges posed by increased regulation. While the rest of state struggled with litigation and tumultuous disagreements, the Central Coast set itself apart by creating constructive agreement through proactive partnerships. After over one year of work, we have a model program that has garnered broad support from environmental and agricultural sectors.

“The agricultural industry has worked proactively with other entities to address water quality issues: first through the Sanctuary and other programs such as ALBA and CCVT; and then through the Ag Waiver development process. This has made a huge difference,” said Alison Jones (Central Coast Regional Water Quality Control Board).



PARTNERSHIPS LEAD TO SUCCESS

- **Diverse groups worked together toward a common goal and built consensus.**
- **23 Agricultural associations assisted in the development of the program.**
- **0 legal actions filed in the Central Coast: 90 actions filed elsewhere.**
- **80 % Enrollment in the Ag Waiver by farmers in the Central Coast.**

"Farmers Invest in Water Quality"

Cost share programs are a critical way for agencies to help implement conservation practices and improve water quality. However, these programs would not be successful without landowners who are willing to spend their own time and money to protect their land.

When Lonesome Oak Vineyard owners Chuck and Lisa Reid of San Luis Obispo County suffered flood damage in March 2001, they faced erosion-caused damage to vines, roads, streambanks, and related water quality issues. They knew they needed conservation assistance to repair the damages and to protect their land. They were directed to their local USDA's Natural Resources Conservation Service (NRCS) office where NRCS staff helped them plan the best conservation management practices for their needs.

The Reids received free technical design assistance and cost share funds for conservation practices. With their \$6,300 investment and NRCS match, the Reid's installed conservation practices with an economic value of \$15,300. The Reid's story is not unique on the central coast. In 2005, fifty-two farmers and ranchers in our area invested two million dollars to match a similar investment from NRCS to improve water quality on over 44,000 acres.



Stream bank erosion halted with rock and native grass planting.

"Water savings without Yield Loss"

With few guidelines available, many growers tend to over-irrigate high-value specialty crops such as raspberries. This exacerbates nitrate contamination of ground and surface water. Through on-farm trials with the nation's largest berry producer, the University of California Cooperative Extension determined the optimal amount of water that maximizes production. By adjusting their watering schedule to match changes in weather conditions, raspberry growers were able to reduce water use by as much as 50% without losing berry yield.

Growers also noticed an improvement in fruit quality. Through consultations and group trainings with UCCE and industry representatives, many raspberry growers in the region have adopted this method of scheduling irrigations.



Data logger that records soil moisture levels every 8 hours.



Macro-tunnels optimize production in the early season when prices are high.

“Diversity Revealed in the Landscape”



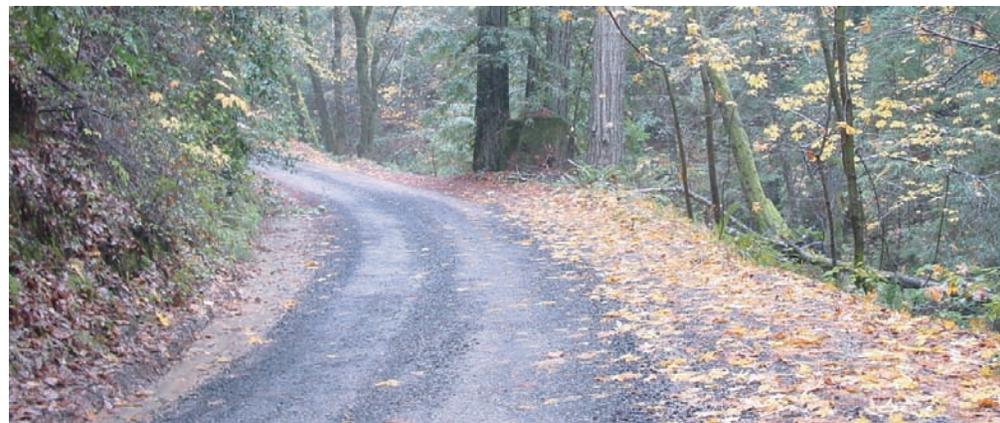
Growers at a Farm Water Quality Planning short course peruse aerial photographs to locate their ranches within Monterey Bay watersheds

The hilly coastal area of Elkhorn Slough is home to a diversity of growers. Many are Spanish-speaking immigrants who, although part of a strong social network, remain largely unconnected to conventional agricultural industry services. The Agriculture and Land-Based Training Association (ALBA) provides Spanish language outreach and coordination to help these growers meet the mutual goals of agricultural production and resource conservation. As a result, growers become more aware of conservation practices, regulatory requirements, and technical and financial assistance. AWQA partners provide a wealth of educational materials in Spanish and hope to include additional languages in the future.

EDUCATION FOR ALL IN 2005

- 430 growers attended 15-hour short courses
- 22% of courses offered in Spanish
- Over 30 other educational events were hosted by AWQA partners

“On the Road to Clean Fisheries”



Roads are a necessity for our way of life. However, poorly maintained or improperly designed roads can lead to unnatural levels of erosion. The resultant polluted runoff deteriorates water quality and can destroy vital spawning habitat. Thousands of miles of privately owned roads cross the Central Coast. Since many private road owners lack the technical skill to properly maintain their roads, streams continue to receive excess sediments. Santa Cruz County Resource Conservation District (SCCRCD) has led AWQA's effort to address this problem.

With assistance from NRCS, SCCRCD has been providing technical assistance and cost-share funding for private roads in San Lorenzo Creek watershed since 2001. In 2005, the program was expanded to include Soquel, and Aptos Creek watersheds. In addition, SCCRCD provides roads assessments, sediment load reduction monitoring and design permits.

PERMIT COORDINATION HELPS

SCCRCD negotiated county-wide permits for a variety of conservation projects, sparing land owners the often frustrating process of obtaining permits. With a new permit coordination program complete in Santa Cruz County, SCCRCD will be able to save money and time completing their important projects. Permit coordination is also available in portions of the Salinas Valley and planned for in other areas of the Central Coast.