

Building Bridges for Success

Kitt Farrell-Poe, Will Payne, Laosheng Wu, Christine French, Carl Evensen, Luisa Castro, Mark Walker, Don Vargo, Kristel van Houte-Howes, Lawrence Duponcheel, Jackson Phillip, Grace O. Garces, Portia Franz, Amlet Kalemen, Tomoé Natori, Chris Babcock

Coordination



Did you know our region....

✦ spans eight time zones, the International Date Line, and both sides of the equator?

✦ includes small islands with populations of 20,000 – 150,000 and the third largest and most populous state in the country with over 34 million residents?

✦ includes desert areas receiving less than 2" annual precipitation and tropical island areas with over 200"

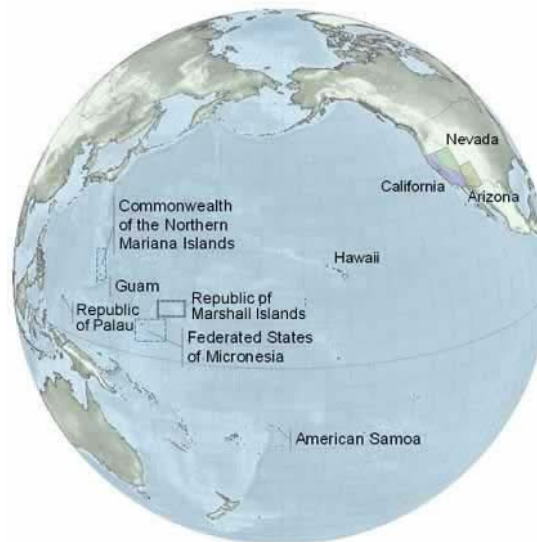
Bridging the Information Gap

Water Quality Attitudes Survey: In an effort to guide future outreach, a regional water quality attitudes survey is being conducted in collaboration with Region 10, the Pacific Northwest. Over 4000 surveys have been sent out to, or conducted orally with, a random sample of the public within the southwest states and Pacific islands. Based on the information we will gain from this survey, we hope to identify:

- trends on public perceptions of water quality;
- areas and topics where more education/outreach is required; and
- methods to present water quality information to the public.

Results will also be combined with those already compiled from a similar survey in Region 10 to look for broader, "western" issues.

Regional Website: Our regional website, with project information and links to resource materials, is another coordinated effort providing a means of outreach to anyone with internet access. <http://ag.arizona.edu/region9/wq/index.htm>



The CSREES Southwest States and Pacific Islands Regional Water Quality Program works to improve water quality management through educational knowledge and extension programming that emerges from a research base. The program builds on the strengths of the Extension Water Quality Programs at the Land Grant Universities throughout the Southwest and Pacific Islands.

Education/Outreach

Bridging Knowledge and Communities

Water quality education and outreach throughout the region reaches community members from the university, government agencies, youth groups, growers, and interested citizens.

Programs range from training people how to monitor their drinking water quality (including methods and procedures), to onsite wastewater management for RV parks, to grower seminars on irrigation and/or fertilization methods for a particular crop.

One regional project under way is the development of a *potential hazard index for nitrate in the southwest states*. The index will incorporate factors of soil, crop, and irrigation practices to give site-specific ratings intended to help farm advisors, county agents, and consultants determine the potential hazard for nitrate leaching on irrigated lands of the southwest states. Once a rating has been calculated, Best Management Practices (BMPs) appropriate for the assessed risk can then be identified and explained. The goal of this program is to improve water quality by helping those in the agricultural community identify potential hot spots for nitrate leaching and providing options (BMPs) for minimizing risks in those areas.



Demonstration



Bridging the Resource Gap

Farmers and families in the Pacific Islands raise pigs almost entirely for cultural purposes. Unfortunately, pig effluent has become a chief source of contamination to surface water, groundwater, and human health.

Although these problems are recognized by the EPA, resources available to work with small-scale piggeries found in the Islands are limited. *Land grant extension agents*, however, are in prime position to bridge that gap, reach out to pig farmers and create some positive change.

Applied research, community education, and development and implementation of locally appropriate piggery waste management practices are addressing the problem of improper waste management and improving the husbandry skills of pig farmers in the region.

Today, some farmers are implementing practices such as the portable dry-litter system, which eliminates discharge into waterways and integrates simple composting techniques. Farmers are encouraged to adopt these environmentally friendly methods that preserve important cultural practices. With funding from CSREES, EPA, and USGS, a project is under way to demonstrate such systems across the Pacific.



Research

Bridging Research to Build a Better Project

By working together as a region, we were able to build a bridge between two separate but similar studies to create a more comprehensive project representing a greater area of the region than either single project could have.

Researchers from the University of Nevada, University of California, Davis, and the Nevada Bureau of Health Protection Services are testing the effectiveness of several management practices, including stream buffers and sedimentation ponds, with respect to microbial loading.

Researchers at the University of Hawaii are evaluating the effectiveness of buffer strips on preventing microbial and nutrient movement from a grazed area of tropical setting.

Together, the two coordinated projects will evaluate the effectiveness of and need for management practices in very diverse climatic, vegetative, and soil zones (alpine and tropical). As a result of this evaluation, we will:

- Develop and deliver workshops for Extension, state & federal partners on the management of sources of microbial contamination in NV, CA, HI, and AZ.
- Demonstrate the effectiveness of management practices in alpine and tropical watersheds.

