

NUMBER: WCC-___

TITLE: INTEGRATED WATER QUALITY RESEARCH AND EXTENSION PROGRAMS FOR THE WESTERN UNITED STATES

DURATION: OCTOBER 1, 2000 - SEPTEMBER 30, 2003

DESCRIPTION AND JUSTIFICATION:

Clean and abundant water is fundamental to life, both in natural ecosystems, as well as for human health and economic vitality. Although great progress has been achieved in the past 25 years in cleaning up America's rivers, lakes and coastal waters, controlling water pollution remains a top national priority. In the Western US, water quality is recognized as being of critical environmental as well as economic importance. Key issues include protection of drinking water from agricultural chemical contamination, livestock waste management, preservation of aquatic habitat for the protection of endangered species such as salmon, irrigation management in arid lands, and protection of coastal and reef ecosystems. The importance of water quality was recognized when the Western AES Directors ranked conservation and enhancement of air, soil and water resources first among ESCOP research program areas and initiatives.

The Clean Water Action Plan developed in 1998 by the EPA and USDA provides guidelines for restoring the nation's water resources and defines four tools for Clean Water: a watershed approach, strong federal and state water quality standards, natural resource stewardship, and informed citizens. In 1997, CSREES called together a team to create a National Strategic Plan for Extension Water Quality, which echoes these four tools. This plan involves seven comprehensive goals; 1) reaching under-served audiences, 2) educating the public about watersheds and aquifers, 3) prevention pollution through best management practices, 4) educating public policy makers, 5) promoting individual actions to protect water quality, 6) promoting volunteerism, and 7) developing partnerships and liaisons with other agencies and organizations. These activities were promoted through existing Water Quality 3(d) program funds which supported faculty salaries and operating expenses. However, the passage of Section 406 of the Agriculture Research, Extension, and Education Reform Act of 1998 (AREERA) has moved this funding into an Integrated Research, Extension, and Education Competitive Grants Program in FY2000. To take advantage of this and other federal funding opportunities, better coordination is needed between states in the Western region. A Western regional Coordinating Committee would help to accomplish this research and extension integration and strengthen our continued participation in the existing national Water Quality Coordinator's network.

OBJECTIVES:

The overall goal of this Coordinating Committee is to establish a communication network among water quality extension coordinators, researchers, and educators in the Western U.S. which will accomplish the following objectives:

1. Coordinate development of research and extension proposals for regional projects, from sources such as USDA (e.g. Section 406 of AREERA) or EPA (e.g. 319 and Environmental Education Grants), which facilitates collaboration and nonduplication of efforts and which results in funding or continuation of several regional projects per year.
2. Promote collaboration on development of educational programs which encourage individual responsibility for pollution prevention and water quality protection through the use of Farm*Home*System educational materials in each Western State and Territory.
3. Foster water quality monitoring and riparian area management through development of common guidelines, protocols, and training materials.
4. Produce subregional (Northwest, Southwest and Pacific Island) recommendations on the management and use of livestock waste in agricultural systems, which increases development of comprehensive nutrient management plans in each state or territory.

5. Improve whole watershed assessment methods in Western States and territories through committee input to watershed scale education and management programs, including Total Maximum Daily Load (TMDL) development and community-based watershed protection programs, such as Nonpoint Education for Municipal Officials (NEMO).
6. Integrate water quality information into elementary, secondary and college-level curricula through sharing of successful programs and materials which results in increased water quality education throughout the Western Region.
7. Increase the delivery of the above water quality education programs in under-served audiences, such as low income and ethnic (American Indian, Hispanic and Pacific Islander) communities.

EXPECTED OUTCOMES:

The main function of this coordinating committee will be to foster regional collaboration in research, extension and educational activities in water quality. This will result in the following outcomes:

- 1) New and emerging water quality issues will be identified in the West for coordinated research and extension efforts resulting in funded regional projects and programs.
- 2) Specialized publications will be produced to educate the public and local legislators about regional and multi-state water quality and quantity issues such as TMDLs, irrigation management for water quality protection, livestock waste management, individual farm and home pollution risk assessment , endangered species and coral reef protection.
- 3) Standardized recommendations and protocols will be developed for training extension professionals and the public on water quality monitoring, riparian area protection, comprehensive nutrient management planning for livestock waste, and drinking water safety.
- 4) Water quality education materials will be evaluated and promoted in schools and environmental education programs throughout the Western Region.
- 5) Committee sponsored regional symposia or workshops and satellite or internet conferences will be conducted.

EDUCATIONAL PLAN:

The Water Quality WCC will support regional conferences such as the Agriculture and Water Quality in the Pacific Northwest and the Western SARE conference on Sustainable Agriculture through participation by committee members and presentation of WCC information. Annual WCC meetings will be held in conjunction with a selected conference, when possible. Special workshops and symposia on current topics will be organized by the WCC either in conjunction with the conference or separately. Specialized publications will be produced, as described in the expected outcomes above.

PARTICIPANTS:

<u>Name</u>	<u>Affiliation</u>	<u>% R</u>	<u>%E</u>	<u>%I</u>	<u>Expertise</u>
Frank Cruz	University of Guam	20	70	10	Horticultural crop production, plant nutrition, water conservation and quality
Carl Evensen	University of Hawaii-Manoa	5	85	10	Nutrient management, soil and water conservation, pollution risk assessment
Kathryn Farrell-Poe	University of Arizona	20	50	30	Onsite wastewater treatment education, non-point source pollution education, safe drinking water issues, landscape irrigation education
John Letey	University of California	15	70(Adm)	15	Soil physics, water resources, irrigation, contaminant movement
Bob Mahler	University of Idaho	5	40	55	Soil fertility, plant nutrition, water quality
Nancy Mesner	Utah State University	0	75	25	Nutrient dynamics, development of TMDLs, watershed scale planning and management, environmental education.

PARTICIPANTS (continued):

<u>Name</u>	<u>Affiliation</u>	<u>% R</u>	<u>%E</u>	<u>%I</u>	<u>Expertise</u>
Ron Miner	Oregon State Unversity	0	90	10	Agricultural, suburban and rangeland NPS control, Livestock waste management, monitoring NPS to meet water quality criteria.
Craig Runyan	New Mexico State University	0	100	0	Environment, farm power and machinery, international agriculture development, irrigation management, water quality
Robert Simmons	Washington State University	0	100	0	Wetlands, contaminant removal processes, watershed education
Fred Sorensen	University of Alaska, Fairbanks	0	100	0	Environmental education, marine sciences, integrated pest management.
Don Vargo	American Samoa Com. College	70	20	10	Soil and plant analysis and soil ecology.

OPERATIONAL STRUCTURE:

The Committee Chair provides leadership for the committee and is responsible for coordination with the Western Directors and for planning the annual meeting. The Committee Chair Elect provides support to chair and becomes chair. The Secretary is responsible for submitting minutes and state reports from annual meetings and becomes the chair elect. Officers serve for one year. Subcommittees are established as needed to meet the planned programming of the Water Quality WCC .

SIGNATURES:

Administrative Advisor

Henry A. Vargo Jr.

Chair, Western Director s Association

Date

8-15-00

Date

PRINCIPAL INVESTIGATOR CONTRIBUTION TO WCC: (attached)