

AWWQRP Structure

AWWQRP Office—The AWWQRP is directed and managed by the AWWQRP Office established within Pima County Wastewater Management (PCWWM), Tucson, AZ. Currently, the PCWWM Capital Development Manager serves as the Project Director. The Project Director supervises and coordinates the activities of the Project and is supported by a Program Manager, Program Services Specialist and office support staff. All support positions are recruited by advertisement per the requirements of Pima County. The primary responsibilities of the AWWQRP Office include:

- Manage and coordinate Project activities;
- Coordinate the selection of the AWWQRP Research Manager and Regulatory Working Group (RWG) and Scientific Advisory Group (SAG) members;
- Coordinate the procurement process for the advertisement, evaluation and award of research projects;
- Prepare and monitor budget to manage grant expenditures and fulfill EPA administrative procedures;
- Create timely and accurate reports on technical and financial achievements;
- Facilitate, as needed, audit procedures;
- Develop and manage contract-tracking procedures;
- Plan and coordinate AWWQRP related meetings and conferences;
- Coordinate activities with stakeholders, especially other Pima County departments;
- Develop and maintain files for all AWWQRP activities;
- Manage the Project's web site, <http://www.co.pima.az.us/wwm/wqrp>; and
- Respond to information requests.

EPA Project Officer—An EPA Project Officer in EPA Region 9 provides support to the Project. The Project Officer serves as the primary point of contact with the EPA and participates to the extent possible in Project meetings, especially those involving the direction and management of the Project.

Research Manager—Scientific management of the AWWQRP is the responsibility of the Research Manager. A contractor recruited according to Pima County procurement procedures provides this service. Camp Dresser & McKee, Inc. (CDM) has provided scientific management services for the AWWQRP since 2001. Responsibilities of the Research Manager include:

- Assist the AWWQRP Project Director in scientific management of the AWWQRP and periodic review and modification of the Work Plan;
- Update the AWWQRP Research Agenda with assistance from the AWWQRP Office and the RWG;
- Provide technical direction to the Project Director and Program Manager;

- Recommend research proposals to be funded;
- Prepare technical content of Requests for Qualifications/Proposals (RFQs/RFPs), including requirements for performance to meet EPA quality control and publication in peer-reviewed journals;
- Monitor progress of funded projects including coordination with contractors, the RWG, SAG, EPA and other Project participants;
- Develop rationale and protocols for review and evaluation of proposals, including quality assurance and quality control of data;
- Participate in technical review of research products and prepare formal review comments to guide authors in producing final reports to meet EPA quality and Project requirements;
- Develop research project plans to be undertaken, when appropriate, by the AWWQRP and secure SAG and RWG review before initiation of effort;
- Prepare technical papers dealing with AWWQRP science issues and application of research results for publication in peer-reviewed journals;
- Participate in public outreach activities to disseminate Project results to stakeholders;
- Maintain communication with the scientific community interested in water quality research and regulation in the arid West;
- Arrange technical content of research conference(s), including contacting speakers, identifying presentation subjects and preparing conference technical program;
- Support AWWQRP Office efforts to coordinate SAG activities including facilitation of SAG review, evaluation and ranking of proposals and preparation of the SAG recommendations for funding.

Quality Assurance Consultant (QAC)—The grant award specifies that the Project will comply with Quality Assurance requirements that are consistent with the EPA. Consequently, the Project has developed a Quality Assurance Project Plan (QAPP) that specifies how this will be done and will retain an experienced investigator in quality assurance to review individual project work plans for compliance with the QAPP. Currently, the QAC is Aquatic Consulting & Testing, Inc.

Regulatory Working Group—The RWG was established to assist in identifying regulatory issues that should be addressed by research, developing the Project's Research Agenda and providing comments on the regulatory significance of proposed projects. A maximum of fifteen members representing state and federal regulatory agencies, Indian tribes, municipalities, industry, environmental organizations, consulting firms and universities serve on the RWG. Key responsibilities include:

- Define research ideas for inclusion in the Research Agenda;
- Identify regulatory issues that should be addressed by research;
- Provide comments on the regulatory significance of proposed RFQs; and
- Meet periodically to discuss the regulatory context of ongoing research and, as necessary, update the Research Agenda to address emerging regulatory issues of concern.

The RWG is currently composed of the following members:

- Kathleen M. Chavez, Chair, Pima County Wastewater Management, Tucson, AZ
- Edward C. Anton, Division of Water Rights, Sacramento, CA
- Rodney W. Cruze, Riverside Regional Water Quality Control, Riverside, CA
- Paul D. Frohardt, Colorado Water Quality Control Commission, Denver, CO
- Michael Gritzuk, City of Phoenix, Water Services, Phoenix, AZ
- Catherine Kuhlman, U.S. EPA, Region 9, San Francisco, CA
- Andrew Laurenzi, The Nature Conservancy, Tucson, AZ
- Susan MacMullin, U.S. Fish & Wildlife Service, Albuquerque, NM
- Patrick J. Maley, Strategic Environmental Management, Boise, ID
- Steve Davis, Malcom Pirnie, Inc., Western Region, Tucson, AZ
- James F. Pendergast, U.S. EPA, Office of Science and Technology, Washington, DC
- Sam Rector, Arizona Department of Environmental Quality, Phoenix, AZ
- Eric Rich, Navajo Environmental Protection Agency, Tuba City, AZ
- Daniel Santantonio, City of Las Cruces, Utilities Division, Las Cruces, NM
- Neil Stessman, Volunteer, National Audubon Society, National Wildlife Federation, Billings, MT

Scientific Advisory Group—Members of the SAG have been selected from academic and professional institutions and organizations. The SAG is currently composed of five members and two alternates who have research experience and training in environmental toxicology, biochemistry and ecology as well as a variety of other water quality disciplines. The primary role of the SAG is to review proposals received in response to RFQs and to rank and recommend proposals based on scientific merit. Specific responsibilities include:

- Provide advice on the Research Agenda;
- Provide technical comments on draft RFQs;
- Review proposals received in response to RFQs;
- Evaluate research progress and assist with review of research products; and
- Periodically contribute to AWWQRP research activities through meetings, correspondence and telephone conferences.

The SAG membership is renewed as necessary and current members include:

- Paul Adamus, Ph.D., Oregon State University, Corvallis, OR – Terrestrial ecology, wetland-riparian systems, ornithology and aquatic invertebrates;
- Gary A. Chapman, Ph.D., Paladin Water Quality Consulting, Corvallis, OR – Water quality criteria development, aquatic and sediment toxicology;

- Karmen E. King, Colorado Mountain College, Leadville, CO – Aquatic toxicology, fisheries biology and aquatic chemistry;
- Robert W. McFarlane, Ph.D., McFarlane & Associates, Environmental Consultants, Houston, TX – Aquatic and terrestrial ecology, threatened and endangered species, environmental impact assessments, habitat evaluation and wetlands; and
- Benjamin R. Parkhurst, Ph.D., HAF, Inc., Laramie, WY – Ecological risk assessment, aquatic toxicology, fisheries biology and aquatic ecology.
- Robert H. Gray, Ph.D. (*alternate*), Richland, WA – Aquatic toxicology, environmental assessments, fisheries, herpetology and water quality; and
- Carlton Sims White, Ph.D. (*alternate*), University of New Mexico, Department of Biology, Albuquerque, NM – Nutrient cycling, ecosystems.