



Applying knowledge to improve water quality

Edition
RWQ003

Southwest States & Pacific Islands Regional Water Program

A Partnership of USDA CSREES
& Land Grant Colleges and Universities



A Diverse Region

Above: The Central Arizona Project. This 336 mile long canal stretches across Arizona to supply drinking water for Phoenix and aquifer recharge for Tucson.

Below: Rainwater harvested and stored in this plastic container provides drinking water for a family on an outer atoll of the Marshall Islands.



Safe Drinking Water

A Common Concern for a Diverse Region

The Southwest States and Pacific Islands Regional Water Quality Coordination Program (also known as the Region 9 Water Program) serves a very diverse region. The region includes the wettest place on the planet (Kauai, Hawaii), the hottest and driest place in the continental United States (Death Valley), many small islands (American Samoa, Guam, Marshall Islands, Micronesia, Northern Marianas Islands and Palau) and one of the most populated states in the nation (California). In spite of the vast differences between locations and the many cultures of the region, drinking water is considered by residents to be the most important issue, according to a survey carried out in 2003 in Region 9 with funds provided by the U.S. Department of Agriculture.

Survey respondents were asked to provide their perspective on many aspects of water. Topics included water for agriculture, recreation, and environmental restoration.

Respondents overwhelmingly rated drinking water as the most important water issue regardless of the location of the survey (Table 1).

Informational Needs Vary by Locality

In each part of the region, households have a strong need for information about drinking water supplies. Residents in Region 9 receive their water from a variety of sources, including groundwater, surface water (such as rivers and creeks), springs, and rainwater catchments (cisterns).

Major drinking water issues that face residents of Region 9 vary across the region and, in some instances, are very localized. For example, public and private water supplies in Nevada use groundwater from formations that are naturally high in arsenic, tungsten, or other toxic chemicals. In some areas, arsenic concentrations in private drinking water supplies dramatically exceed the national primary drinking water standard. In Arizona, localized occurrences of nitrate and arsenic may be a concern for the private well owner. Throughout

Table 1. Percentage of respondents rating clean drinking water as extremely or very important.

Pacific Territories	100%
Arizona	99%
California	99%
Nevada	99%
Hawaii	98%

University of Guam • American Samoa Community College • College of the Marshall Islands



College of Micronesia • Northern Marianas College • Palau Community College

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much of Arizona, water supplies are high in total dissolved solids (a secondary drinking water standard). In the Pacific Islands, residents are concerned with bacterial or protozoan contamination of water collected and stored in rainwater catchment systems. In California, well owners may be concerned with inorganic and organic contaminants associated with former and current land uses.

Informational Needs – Public vs. Private Water Supplies

Households that receive their drinking water from a public water system (see definitions) fall under the protection of the federal Safe Drinking Water Act. This law provides enforceable health-based standards to ensure the quality and safety of public drinking water. These households receive a report (usually called a *Consumer Confidence Report*) annually from their water provider. The report provides householders a clear idea of the source and quality of their drinking water supply.

Households that maintain their own water supply system, such as a well or a rainwater catchment, do not fall under the jurisdiction of the Safe Drinking Water Act. These predominantly rural households are responsible for the safety of their own drinking water supply. Accordingly, their informational need is significantly greater than their counterparts served by public water systems. To be assured of the safety of their drinking water supply these households require information on water quality testing to include what contaminants to test for (local and regional) and how often to test, how to collect a sample, where they can send the sample to be analyzed, and how to interpret the lab findings when they receive the results of their sample analysis.

The Southwest States and Pacific Islands Water Program (Region 9) – Responding to Consumer Informational Needs

Cooperators from the land grant universities and colleges that make up the Region 9 Water Program address informational needs at the consumer level by providing unbiased and publicly accessible research-based information to the consumer through both publication and outreach education. Here are some examples of “at-the-tap” drinking water subjects that the Region 9 Water Program addresses:

- Understanding primary and secondary drinking water contaminants
- Understanding water quality reports
- Locally occurring contaminants and their associated hazards
- Testing of well water
- Listings of certified labs
- Well disinfection and maintenance
- Choosing a home water treatment device
- Water testing and disinfection for rainwater catchments (Hawaii and Pacific Islands)
- Solar distillation (Marshall Islands)

About Our Program

The Regional Water Quality Coordination Program, a partnership between USDA-CSREES and the Land Grant Colleges and Universities, seeks to ensure the integration of water quality efforts within the jurisdiction of each of the ten regions of the National Water Program. The Program is designed to make research, education, and extension resources of the university system more accessible to Federal, State, and local water quality improvement efforts, thus enhancing opportunities for agricultural producers, and rural communities to adopt voluntary approaches for the improvement of water quality.

Southwest States & Pacific Islands (Region 9)

<http://ag.arizona.edu/region9wq/>

National program website

<http://www.usawaterquality.org/>