



The Water Resources Research Institutes

An Effective Federal-State Partnership

Introduction

There are 54 Water Resources Research Institutes: one in each of the 50 states, the District of Columbia, the Virgin Islands, Puerto Rico and Guam. Each institute is located at a land grant university or another university designated by the governor. The institutes receive base funding through the U.S. Geological Survey (USGS) and operate varied programs tailored to the needs of the states and territories they serve. They collaborate nationally as the National Institutes for Water Resources (NIWR).



History and Mission

The Water Resources Research Act of 1964 (WRRRA) established the water institutes. It required them to: (1) arrange for competent research that addresses water problems or expands understanding of water and water-related phenomena; (2) aid the entry of new research scientists into the water resources fields; (3) train future water scientists and engineers; and (4) distribute the results of sponsored research to water managers and the public. Congress reauthorized the Act most recently in 2006, in PL 109-471. An independent panel appointed by the Secretary of Interior evaluates the performance of each institute on a regular basis.

Program Resources

The institutes form the primary link between water experts in our Nation's universities and those who manage and use water. Consequently they have many constituencies for their work and diverse sources of support, both public and private. In FY 2006, they used \$6.4 million in base federal appropriation to leverage \$111 million in additional funding from federal and non-federal sources. Because each institute operates with a unique charter from its state, their budgets range from \$100,000 to over \$10 million. As required by the WRRRA, none of the federal funding appropriated directly for the institutes is used to pay overhead costs, and each institute matches every dollar of its base appropriation with at least two dollars from non-federal sources.

Research. In FY 2006, institute research involved 234 universities, 165 state agencies, 170 federal agency offices, and more than 240 private-sector or local-government entities. More than 900 projects were carried out across the Nation, at an average cost of about \$126,000. The research topics spanned a wide range, including aspects of water supply, water quality, and water policy and economics.

Technology transfer. Annually, institute research produces about 1,000 technical publications. Approximately one-fourth of these appear in refereed scientific journals. In FY 2006 the institutes conducted 280 conferences, field trips and workshops for more than 150,000 participants. Most institutes publish newsletters and nearly all maintain a frequently-updated website, and they disseminate research results via electronic newsletters, circulating libraries and special publications.

Education. The water institutes operate the single largest program to educate our Nation's future water professionals. In FY 2006, they provided research support for 983 undergraduate and graduate students at more than 150 universities. Students of engineering, agriculture, economics, earth science, chemistry, public policy and other fields are benefiting from research stipends and fellowships. Several institutes administer water-resources graduate programs.



Continued Relevance of the Institutes

The 2004 review of the institutes that was commissioned by the Interior Secretary found them to be *"...an important and significant part of the Nation's water resources research infrastructure."* The unique value of this federal-state program derives from several characteristics:



- Its research is tailored to on-the-ground needs identified by technical advisors representing private and public water managers, decision-makers and water users in the states
- The institutes communicate research needs and results between investigators and users of water information in a manner that is scientifically credible, non-regulatory and non-advocacy
- The program offers water managers and water users direct access to expertise in the diverse water disciplines at land grant universities
- Many institute projects aim to assist states in satisfying federal regulatory mandates
- The program adheres to high standards of cost-efficiency, accountability and transparency
- Its research is independent of the limitations imposed by the missions, goals and timelines of individual federal agencies.

Institute Funding

In light of their success acquiring additional support, some question whether the federal government should provide base funding to the water institutes. It is estimated that, without base funding, at least one-third of the institutes would immediately disappear and another third would be folded into other research groups lacking the mandates for federal-state coordination and technology transfer. The remaining institutes would be compelled to narrow their focus to specific issues, substantially curtailing their service to both states and the federal government. The national collaboration among institutes would not likely survive. In summary, although the amount is nominal, base funding for the water institutes is critical, providing the fulcrum against which they leverage much more extensive resources.

USGS Contact

John E. Schefter, Chief, Office of External Research
U.S. Geological Survey Water Resources Discipline
(703) 648-6800
schefter@usgs.gov
<http://water.usgs.gov/wrri/>

NIWR Contact

Paul Godfrey, Executive Secretary
National Institutes for Water Resources
(413) 256-5686
godfrey@tei.umass.edu



Go to <http://niwr.montana.edu> to learn about the institute programs and projects in your state.