

Water Resources Research Act Program; USGS 104 B&G.

Water Resource Institutes consult with state and local agencies, experts in higher education and industry and the general public to determine their research agenda in support of the long-term water planning, policy development and resource management. DoI-USGS provides a modest base grant to target local priorities, recruit and train researchers and leverage federal funds with state money and private funding. Institutes are able to leverage \$16 in non-USGS grant funds for every dollar they receive from the USGS, making the Water Resource Institutes program among the most cost-effective, cost-shared national research programs in the country. Their federal to-non-federal funding ratio outpaces other federal science programs, including the National Science Foundation.

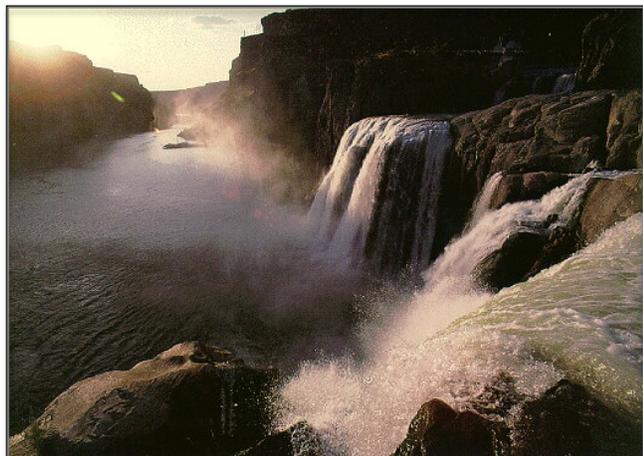
Coordination of University of Idaho Water Programs.

The Idaho Water Resources Research Institute (IWRRRI) serves as the coordinating entity for all of the University of Idaho's Water Research programs, allowing it to draw upon the expertise within the Idaho university system and collaborative partners to: develop meaningful solutions for Idaho water problems through basic and applied, interdisciplinary research; provide high-quality natural resource education and educational support; and transfer technologies and information developed from research activities to agencies, organizations and individuals involved in water use, management and protection (see additional information sheet: *Water Resources Research and Graduate Education at the University of Idaho: Understanding the Role of Water in the New West*).

Accomplishments.

Over the past decade, the 104B program has provided seed funding to 40 research faculty at Idaho universities, enabling faculty to initiate and sustain research and education careers in Idaho. Seed funding has helped faculty direct over \$4 million annually in water resources research activity from non-USGS sources. Specific accomplishments include:

- Development of tools to aid the Idaho Department of Water Resources and the US Bureau of Reclamation for the conjunctive management of surface and ground water in the Eastern Snake Plain - the basis for the development of Idaho's Comprehensive Aquifer Management Plan (CAMP) to be implemented for all Idaho ground water basins;
- Development of approaches for assessing crop water usage over large areas using remote sensing information. This collaborative effort between IWRRRI and IDWR was awarded the Harvard Kennedy School-Ash Institute Innovations in Government Award. It is now used routinely within IDWR for investigating and resolving water rights conflicts, for aquifer depletion modeling and for mitigation of endangered species through stream flow management. The METRIC model developed in this program is being adopted by ten western states and parts of Africa,



Europe and Australia. METRIC allows water managers to evaluate the effectiveness of water efficiency and aids the selection and implementation of water conservation practices.

- Development of a more thorough understanding of the economic value that is provided to the Treasure Valley through the management of the Boise River, and how this may be impacted by changes in the water management infrastructure, as well as changes to the region's population, economy and climate.



Satellite imagery near American Falls, ID. New technology developed by University researchers allows for better water use estimates for irrigated lands.

- 104B provided support to 40+ water resources students who have gone on to become employees of the Idaho Department of Water Resources, the Idaho Department of Environmental Quality, the US Bureau of Reclamation, universities and a number of private water resources consulting firms.

Consequences of Reduced Funding.

Reduced support would result in a lessened capacity for Idaho to address its critical water resource issues, due to both a reduction in the knowledge created and disseminated through research and outreach activities, and a reduction in the number of students whose education is supported by this research activity.

For more information, please contact:

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