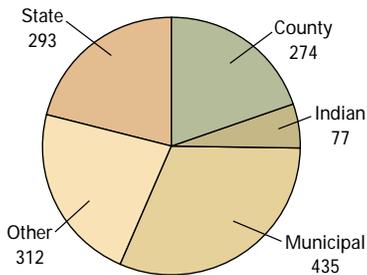


Cooperative Water Program— A Partnership in the Nation's Water-Resources Program

By Myron H. Brooks

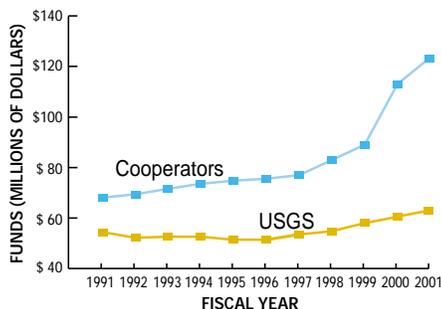
The Nation's water resources—our rivers, lakes, and aquifers—supply our drinking water, support our industries, transport our products, and provide us with recreational opportunities. These resources are vital to the long-term health of our citizens and the stability of our economy. Management of these resources is a complex task involving all levels of government and a multitude of laws, regulations, and competing interests. The USGS Cooperative Water Program has been providing basic information needed by water-resources managers across the Nation for over 100 years.

The USGS Cooperative Water Program is an ongoing partnership between the USGS and non-Federal agencies. The program jointly funds water-resources projects in every State, Puerto Rico, and several U.S. Trust territories. Highly skilled USGS employees use nationally consistent procedures and quality-assurance protocols in conducting cooperative projects. These standards ensure that all data from the Cooperative Water Program are directly comparable from one region to another and available from USGS databases for use by citizens,



Number of Cooperators in 2001

public officials, industry, and scientists nationwide. Agencies, or "Cooperators," that participate in the Cooperative Water Program are primarily State, Tribal, county, and municipal agencies with water-resources responsibilities. In 2001, nearly 1,400 Cooperators



participated in the program. Although the Program originated as a 50:50 fund-matching arrangement, Cooperator funds have grown faster than USGS funds in recent years. In 2001, Cooperative Water Program funds totaled \$185.9 million. Cooperators contributed \$123.2 million or two-thirds of that total.

Valued Cooperation

Work performed in the Cooperative Water Program is jointly planned. This ensures that work simultaneously meets the mission objectives of the USGS and the data and information needs of the Cooperators. The result is a national program that has broad relevance and widespread use of its products. This significant tie to local and State water resources needs also creates a program that responds quickly to emerging issues.

"A better example of how all levels of government can work together to provide a service, in this case, data collection, could not be found."

—Alfred H. Vang, Deputy Director, South Carolina Department of Natural Resources

Cooperators choose to work with the USGS because of the agency's unique technical expertise and commitment to provide

public access to data collected by the Cooperative Water Program. Many cooperators want to work with USGS because of its long-standing record of performing high-quality, objective measurements and assessments. The scientific, non-regulatory mission of the USGS means that its data and analyses are accepted as valid by parties in many types of regulatory and jurisdictional disputes.



Checking the health of the Nation's rivers. Measuring flow from a bridge near a USGS streamgage.

Data and Information for Many

The Cooperative Water Program supports the collection of basic hydrologic data, studies of specific water-resources problems, and hydrologic research. In 2001, for example, about 4,200 streamgages were operated and maintained

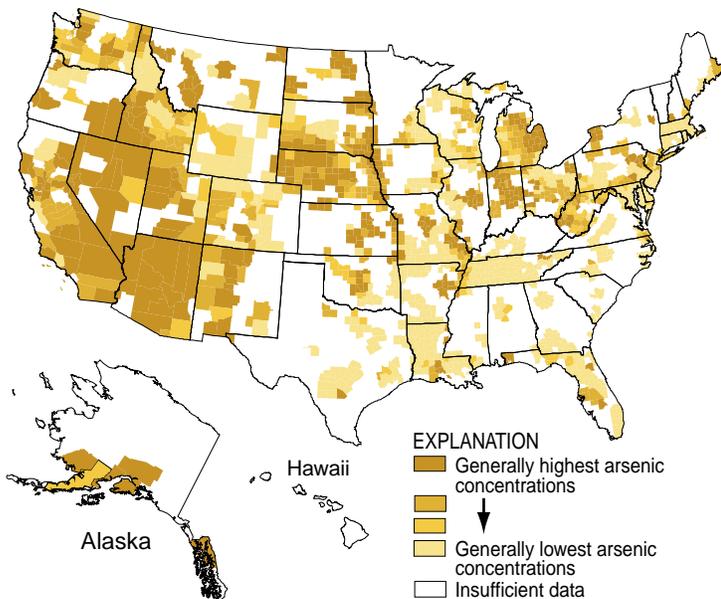
using Cooperative Water Program funds. The program also funds approximately 750 interpretative projects targeted at specific water-resources issues, such as the effects of urbanization, agricultural practices, and energy development on water quality.

“Our community’s partnership with USGS is saving hundreds of millions of dollars in meeting federal mandates of the Clean Water and Endangered Species Acts through the Federal State Cooperative Program”

—Bill Gaffi, General Manager, Unified Sewage Agency of Washington County, Oregon

Because data collected in the Cooperative Water Program are directly comparable, regional and national-scale syntheses of the data are possible. Examples of these syntheses include using historical streamflow information to evaluate regional drought and climate variability, and development of a technique for estimating time of travel for rivers, which provide information for estimating the arrival time for accidental chemical spills.

More recently, an analysis of nationally consistent information on arsenic concentrations in 18,000 wells collected across the country, mainly through the Cooperative Water Program, alerted EPA to potential problems in many

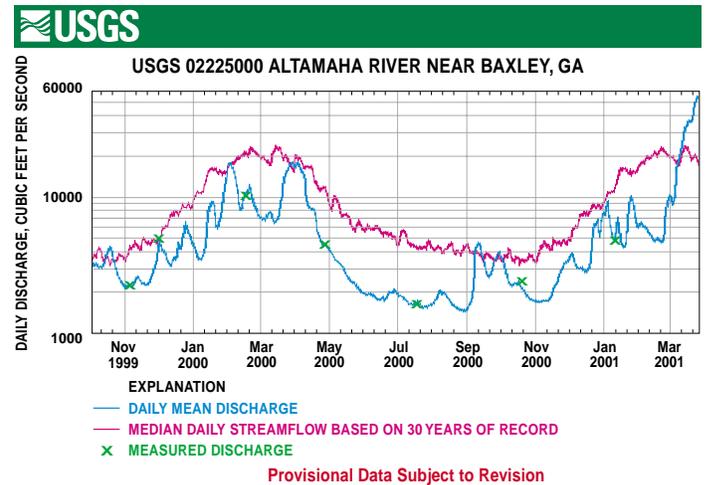


Arsenic concentrations in ground water, a map product of the Cooperative Water Program (<http://water.usgs.gov/coop/>).

areas and is being used to formulate a new drinking-water standard for arsenic. Hydrologic data and results of interpretive projects are published as USGS reports, which are publicly available. In addition, more and more projects result in Internet products ranging from descriptive home pages and online reports, to interactive interfaces that allow

users to run predictive models and conduct sophisticated statistical analyses using data that are available online. Results from many interpretive studies, which are local or regional in scope, have broad transferability to other parts of the Nation where similar water-resources issues exist.

Data collected by the Cooperative Water Program are incorporated into the National Water Information System (NWIS). NWIS contains hydrologic information collected by the USGS during the past 120 years. It includes streamflow data from 21,000 sites, water levels from over 1,000,000 wells, and chemical data from rivers, streams, lakes, springs,



Sample hydrograph from the National Water Information System (NWIS), which includes online access to millions of water records.

and ground water at 338,000 sites. All of these data are publicly available, and can be readily accessed via the Internet (<http://water.usgs.gov/nwis/>).

An external task force reviewed the Cooperative Water Program in 1999. A report (USGS Circular 1192) describing the review and its 57 recommendations can be found at <http://water.usgs.gov/pubs/circ/circ1192/>.

“In today’s climate of growing demands on, and increasing competition for, the Nation’s water resources, there is an increased need for all types of water-related data and analyses now and in the future. The Cooperative Water Program offers the highest level of scientific knowledge, objectivity, and technical expertise.”

—External Task Force Review of the United States Geological Survey Federal-State Cooperative Water Program, August 1999

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