



# WATER FACT SHEET

U.S. GEOLOGICAL SURVEY, DEPARTMENT OF THE INTERIOR

## THE NATIONAL WATER-USE INFORMATION PROGRAM—GROUND-WATER PERSPECTIVE

### BACKGROUND

Detailed information currently documents the availability and quality of ground and surface water, but there still is insufficient information available on the quantity of water used, where it is used, and how it is used. Without adequate information on the use of water, planners and managers cannot effectively resolve many critical water problems involving water quality, environmental impact, energy development, and resource allocations. Following are some facts about ground-water use:

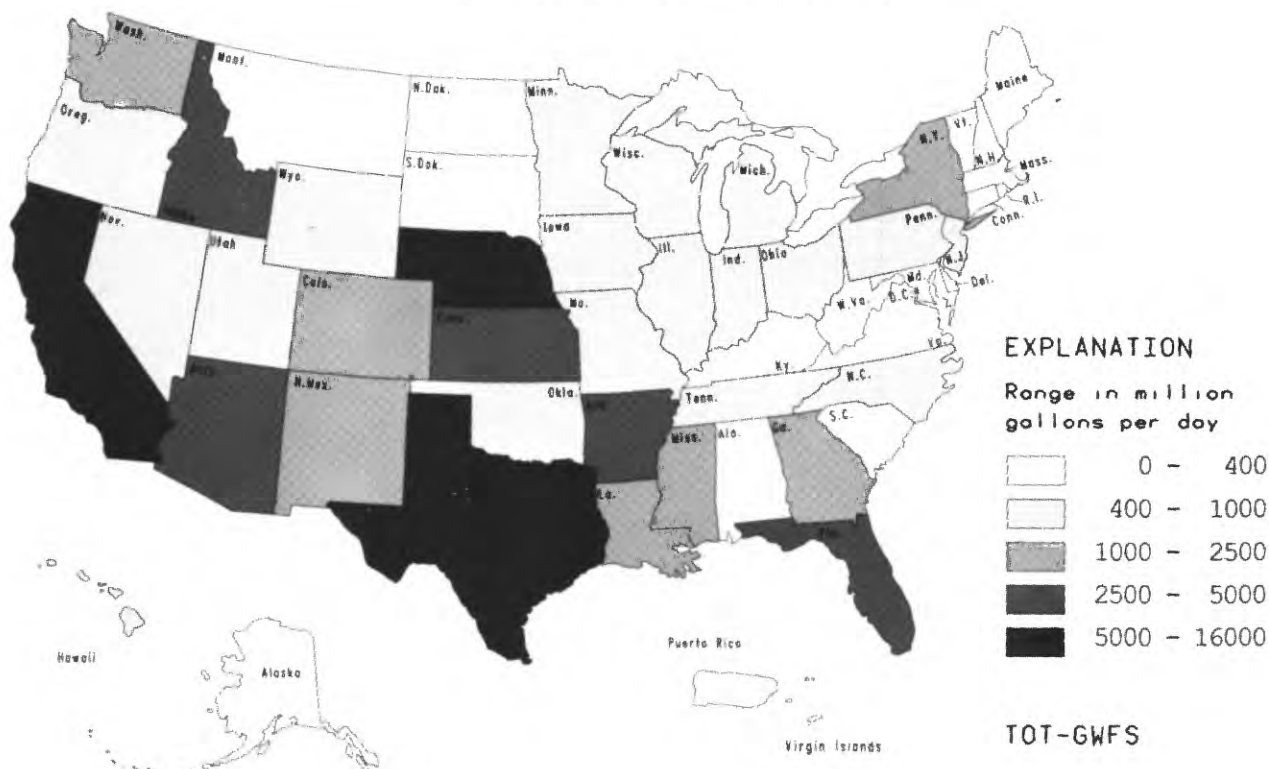
- Fresh ground water is the source of water for more than 50 percent of the Nation's population.
- During 1985, about 18 percent of the Nation's population in suburban and rural areas were served by their own water systems, most of which depended on ground water as the source of supply.

- During 1985, an estimated 73,300 million gallons per day of fresh ground water were withdrawn, 10 percent less than during 1980.
- Fresh ground water is the source for about 22 percent of the freshwater withdrawn in the United States.
- More ground water is withdrawn in the western part of the United States than in the eastern part. Ground-water withdrawals in California account for about 20 percent of the Nation's total ground-water withdrawals. (See map.)

### PROGRAM DESCRIPTION

The National Water-Use Information Program of the U.S. Geological Survey (USGS) is a cooperative program designed to collect, store, analyze, and disseminate water-use information, both nationally and locally, to a wide variety of government agencies and private organizations. The program

### GROUND-WATER WITHDRAWALS



was begun in 1978 to meet the need for a single source of uniform information on water use and to serve as the focal point for water-use information. The water-use program is financed through the Federal-State Cooperative Program of the USGS. In fiscal year 1988, nearly \$4 million in Federal matching funds are available to support water-use information activities in 49 States and Puerto Rico.

## OBJECTIVES

The objectives of the program are to:

- Determine on a national level how much fresh and saline ground and surface water is withdrawn and for what purposes, identify the source of water, determine how much of this water is consumed during use, and how much water is returned to the source after use;
- Develop and refine a computerized system to store and retrieve water-use information at both the State and national level;
- Devise and apply new methods and techniques to improve the collection, analysis, and dissemination of water-use information;
- Evaluate the effects of water use on the quality of the water used; and
- Explain the values and applications of water-use information, and make this information available to Federal, State, and local agencies involved in establishing water-resources policy.

## ACCOMPLISHMENTS

Through the cooperative water-use program, (1) State water-use data needs are met, (2) standardized collection and analysis methods were developed that allow evaluations based on similar assumptions and comparable data, (3) State Water-Use Data Systems are being developed by using adaptable computer linkage and access to help insure effective, efficient communication and data handling between other Federal agencies, the States, and the USGS, and (4) the data can be aggregated to respond to interstate, regional, and national water-use data needs through the National Water-Use Data System. Water-use information is being compiled for the first time at the county level as well as at the State and regional levels. When the program is fully implemented, local agencies will be better equipped to:

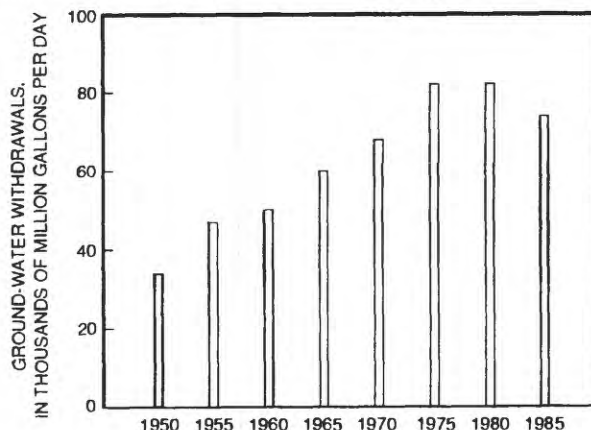
- Identify areas of large water withdrawals with potential for degradation of water quality;
- Determine present water uses and assist planners and managers in projecting future water demands;
- Allocate water resources between competing users;
- Support conservation of water resources; and
- Participate more knowledgeably in Federal water-allocation planning.

When the water-use program is fully implemented, Federal agencies will have:

- A national water-use data base to complement data on availability and quality of the Nation's water resources;
- Water-use information that is essential for the regional and national planning of the Nation's water resources;
- A means for analyzing accurate statistical summaries of water use nationwide on a more timely basis, such as annually or at 5-year intervals;
- A means to identify alternative water supplies for local or regional areas during emergencies; and
- An additional means to assist in the identification of hazardous waste sites that could potentially contaminate sources of public supply water.

## TRENDS IN GROUND-WATER WITHDRAWALS

Ground-water withdrawals increased steadily from 1950 to 1980. Ground-water withdrawals were 12 percent less during 1985 than during 1980, however, as shown in the figure below. The significant decrease in ground-water withdrawals is largely the result of a 40-percent decrease in ground-water withdrawals for industrial use and a 17-percent decrease in ground-water withdrawals for irrigation. Some of the indicated decreases also may be attributed to better estimating techniques, which tend to produce estimates lower than previously reported, or to estimated values, but the overall declines appear to be valid.



Additional information on the National Water-Use Information Program and its data bases can be obtained from:

Program Manager  
National Water-Use Information Program  
U.S. Geological Survey  
414 National Center  
Reston, Virginia 22092