Current Program Sponsors

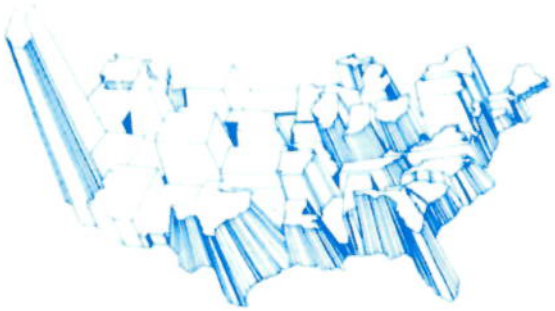
California Department of Water Resources
U.S. Geological Survey

For further information regarding the California Water-Use Information Program, contact the following:

U.S. Geological Survey
Water Resources Division
California District Office
2800 Cottage Way, Rm. W-2234
Sacramento, California 95825
Phone: (916) 978-4633

On the cover: California accounted for 12 percent of the Nation's water use in 1980 (Solley and others, 1983, p. 38).

Water-Use Information for California

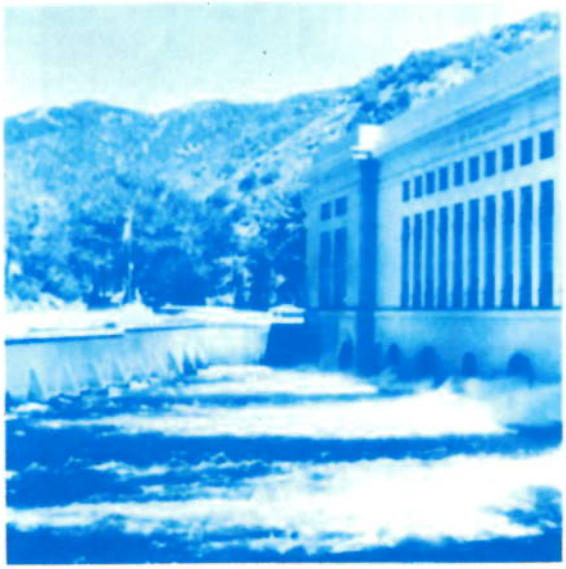


United States Department of the Interior
Geological Survey
Open-File Report 86-483

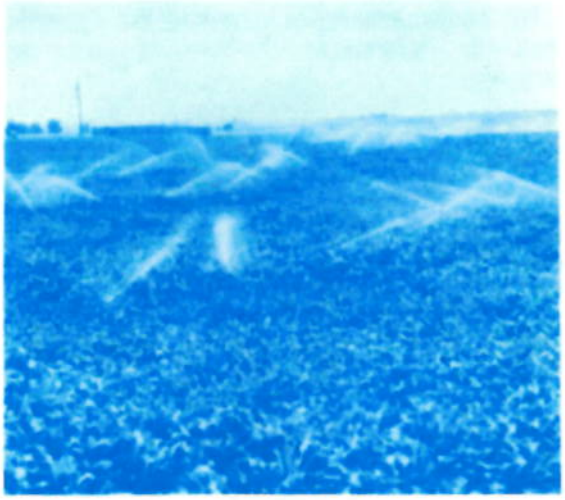
Water-Use Information for California

by William E. Templin

In 1977, the Congress of the United States recognized the need for uniform information on water use and directed the U.S. Geological Survey to establish a National Water-Use Information Program (NWUIP) to complement the Survey's data on the availability and quality of the Nation's water resources. The Geological Survey started a water-use information program in 1978 to provide for the comprehensive and systematic collection, storage, analysis, and dissemination of water-use data and information throughout the United States.



Hydroelectric power (PH) production uses and reuses the most water of all 12 categories in California (Solley and others, 1983, p. 30 and 38).



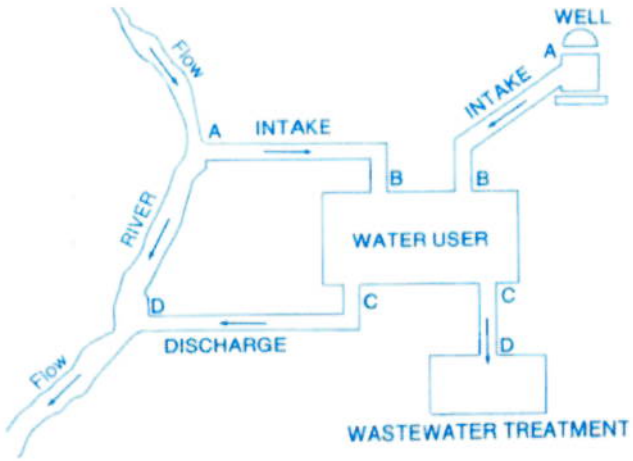
Irrigation (IR) is the largest category of offstream water use in California and the Nation (Solley and others, 1983, p. 16).

Statistics on agricultural, domestic, and industrial water use are required for the planning, management, and development of the Nation's and California's water resources. These statistics are also needed to provide information necessary to identify and resolve critical water problems relating to environmental impacts, resource allocations, water quality, and energy development.

The U.S. Geological Survey is addressing this need by collecting and publishing information on major water uses within the State. The Survey, in cooperation with other Federal, State, and local agenices, is developing in stages a computerized data system called the State Water-Use Data System (SWUDS).

SWUDS is currently organized into 12 water-use categories: Agricultural non-irrigation (AG); Commercial (CO); Domestic (DO); Industrial (IN); Irrigation (IR); Mining (MI); Power generation: Fossil fuel (PF), Geothermal (PG), Hydroelectric (PH), Nuclear (PN); Sewage treatment (ST); and Water supply (WS).

The information needs of this system include type of water use (by category); name of water user; location of water use (latitude/longitude, county, and hydrologic unit--drainage basin); sources of water supply and return (fresh, saline, or reclaimed surface or ground water); volume of water withdrawn, delivered, consumed, released, and returned; and period of water use (month, year).



The water-use system as defined by SWUDS: Points of withdrawal (A), delivery (B), release (C), and return (D).

State and local agency personnel collect most of the water-use data. The success of the Water-Use Information Program depends heavily on the cooperation of water users and suppliers in providing assistance during the compilation and analysis of the information. Knowledge of California's water-resource availability and utilization through programs such as this can provide necessary and valuable assistance in effective management of water for the benefit of present and future generations.

The water supply (WS) category refers to water withdrawn from surface sources (as shown here) and underground sources by public and private suppliers for domestic (DO), commerical (CO), and industrial (IN) uses.

Domestic water (DO) use accounts for 61 percent of all urban uses in California (California Department of Water Resources, 1983, p. 45).

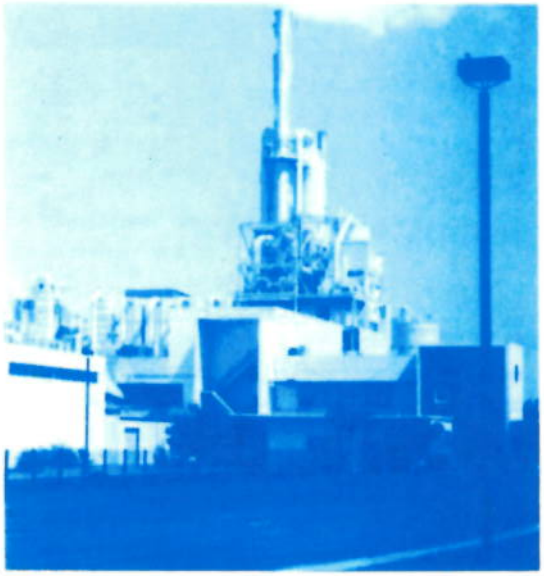
As studies for each water-use category are completed, water-use reports will be made available on request to State, local, and private organizations for planning, management, policy making, and related activities.

References Cited

California Department of Water Resources, 1982, Water use by manufacturing industries in California, 1979: California Department of Water Resources Bulletin 124-3, 113 p.

-----1983, The California water plan, projected use and available supplies to 2010: California Department of Water Resources Bulletin 160-83, 263 p.

Solley, W.B., Chase, E.B., and Mann, W.B., IV, 1983, Estimated use of water in the United States, 1980: U.S. Geological Survey Circular 1001, 56 p.



The food and related products industry was the leading industrial (IN) water user in California in 1980 (California Department of Water Resources, 1982, p. 29; 1983, p. 47).