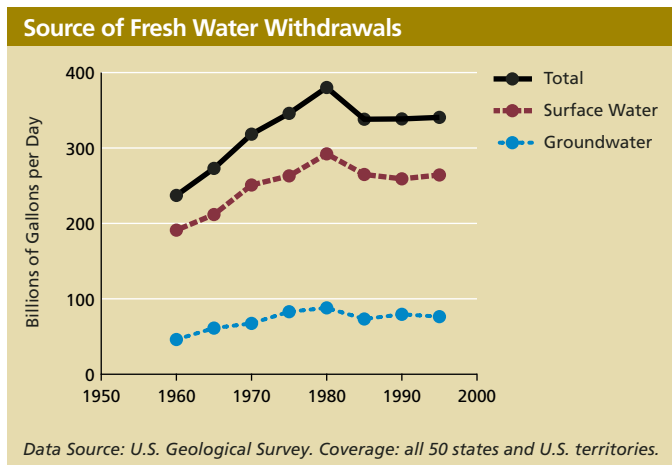




SYSTEM DIMENSIONS	CHEMICAL AND PHYSICAL	BIOLOGICAL COMPONENTS	HUMAN USES
Extent Pattern	Nutrients, Carbon, Oxygen Contaminants Physical	Plants and Animals Communities Ecological Productivity	Food, Fiber, and Water Recreation and Other Services

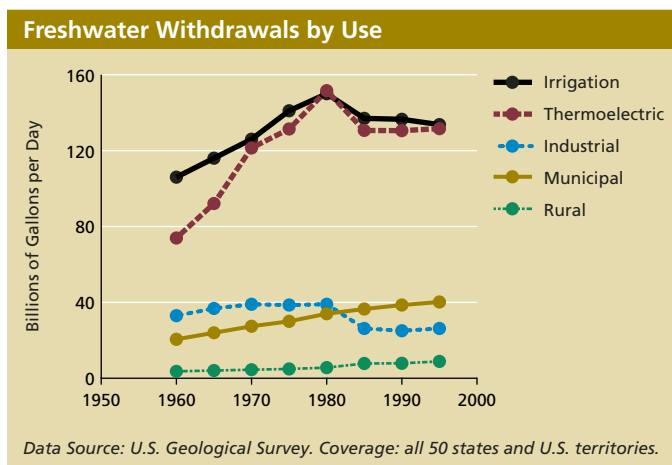
● Water Withdrawals



What Is This Indicator, and Why Is It Important?

This indicator reports the total amount of surface water and groundwater withdrawn for use in the municipal, rural, industrial, thermoelectric, and irrigation sectors (see the technical note for a description of these categories).

Accurate information about the amount of water being used and what it is being used for will help planners and managers make better decisions about the nation's water resources. Information on water withdrawals can help them assess the effectiveness of alternative water management policies, regulations, and conservation activities and project future demand.



What Do the Data Show?

Groundwater and surface water withdrawals increased from 1960 to 1980, and these increases are attributed to increasing demand from all major sectors. Total water withdrawals declined about 10% between 1980 and 1985, then grew slightly from 1985 to 1995. Reduced demand for irrigation, thermoelectric power generation, and self-supplied industrial use was responsible for the decline in total withdrawals between 1980 and 1985; demand in these three sectors was nearly flat from 1985 to 1995. Demand for municipal and rural use has grown steadily over the past few decades, with municipal demand increasing more rapidly.

Discussion For most categories of use, very little water is actually consumed—that is, most of the water withdrawn is returned to the environment for subsequent use by others, although its quality may be lower than when it was initially withdrawn, reducing its suitability for some uses. So, for example, most of the water withdrawn to cool an electric power plant is returned to the river for use downstream for irrigation, municipal water supply, and so on.

The technical note for this indicator is on page 254.