

Public Supply Water Use

Public supply refers to water withdrawn by public and private water suppliers that provide water to at least 25 people or have a minimum of 15 connections. Public-supply water is delivered to users for [domestic](#), commercial, and [industrial](#) purposes. Part of the total is used for public services, such as public pools, parks, firefighting, water and wastewater treatment, and municipal buildings, and some is unaccounted for because of leaks, flushing, tower maintenance, and other system losses. Domestic deliveries represent the largest single component of public-supply withdrawals.

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2015 Water Use

(source: Dieter, C.A., Maupin, M.A., Caldwell, R.R., Harris, M.A., Ivahnenko, T.I., Lovelace, J.K., Barber, N.L., and Linsey, K.S., 2018, Estimated use of water in the United States in 2015: U.S. Geological Survey Circular 1441, 65 p.,

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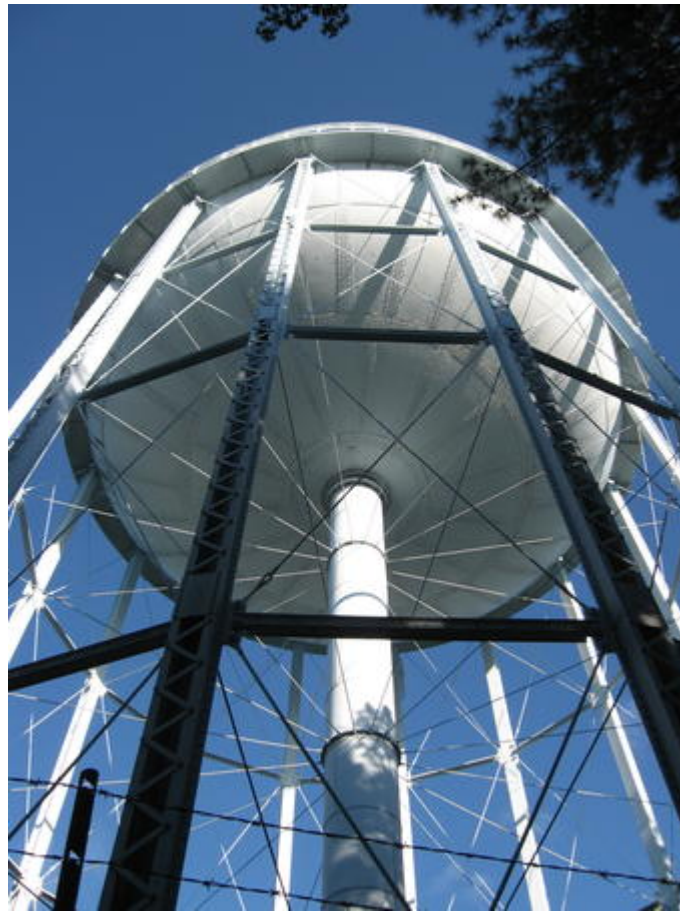
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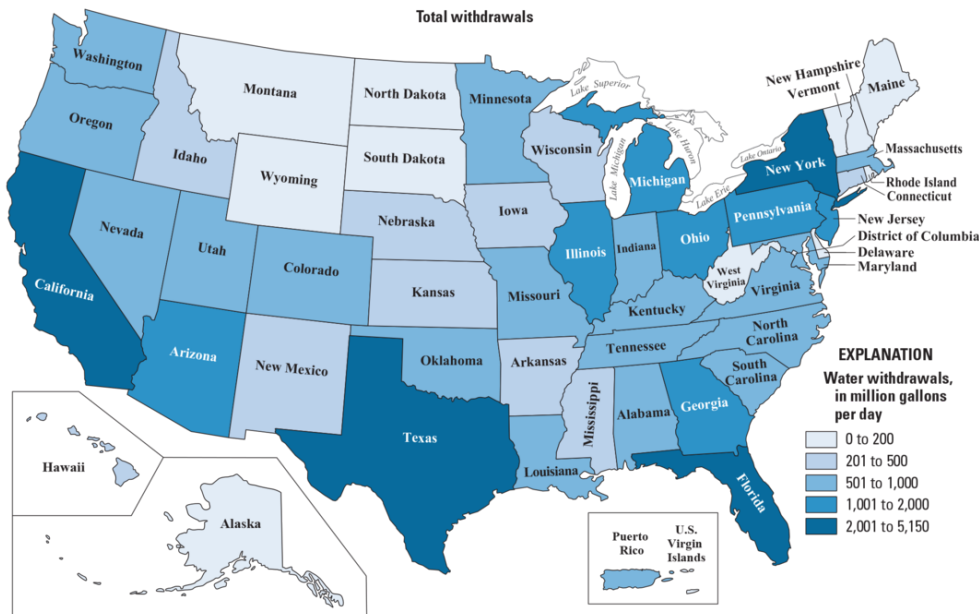
Water tower, DeKalb County, Georgia (Credit: Nancy Barber, USGS)

<https://doi.org/10.3133/cir1441>.)

Approximately 39,000 Mgal/d of water were withdrawn for public supply in 2015, 61 percent from surface-water sources. Public supply represents about 14 percent of total freshwater withdrawals. In some States, public-supply water sources include desalinated seawater or brackish groundwater that has been treated to reduce dissolved solids. Saline surface-water withdrawals for public-supply use were reported in U.S. Virgin Islands, Texas, Florida, and Massachusetts. Saline groundwater withdrawals for public-supply use were identified in Florida, California, Texas, Virginia, Kansas, and Utah.

Public Supply 2015

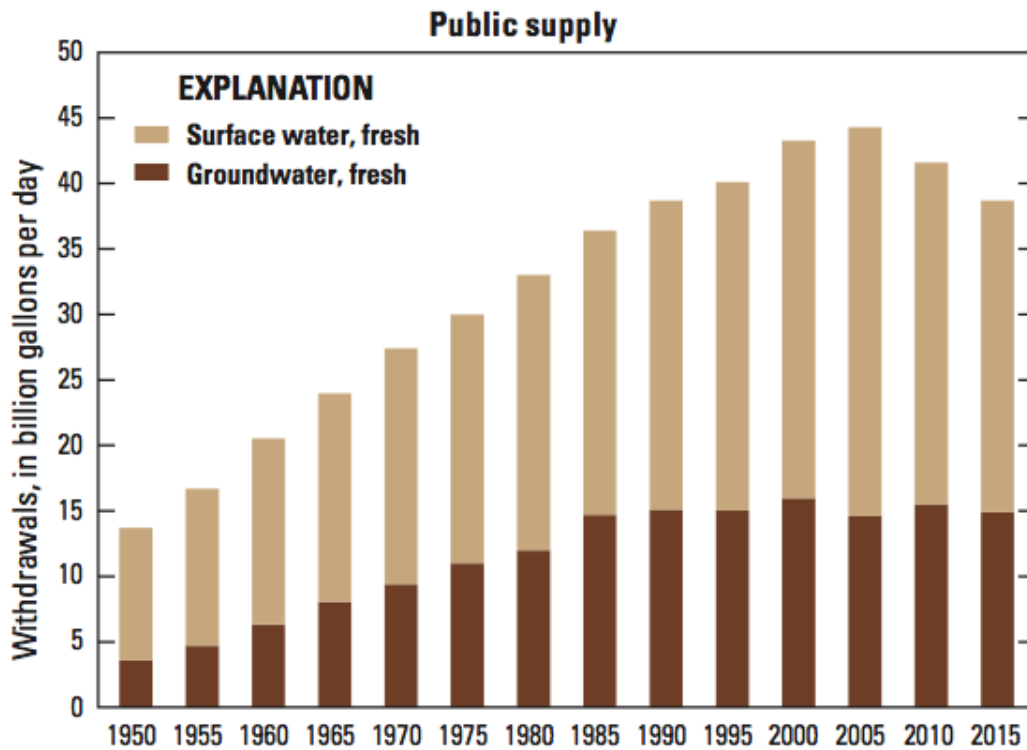
Total withdrawals



An estimated 283 million people relied on public-supply water for their household use in 2015. This number represents about 87 percent of the total U.S. population. In 36 States, including Puerto Rico and the U.S. Virgin Islands, surface-water sources provided more than half of the total public-supply withdrawals. Three States—California, Florida, and Texas—accounted for 37 percent of total groundwater withdrawals for public supply. States that relied on groundwater for 75 percent or more of their public-supply withdrawals were Hawaii, Idaho, Florida, Mississippi, Iowa, and Nebraska.

Public supply withdrawals, top States, 2015 [percentages calculated from unrounded values]		
State	Percentage of total withdrawals	Cumulative percentage of total withdrawals
California	13%	13%
Texas	7%	21%
New York	6%	27%
Florida	6%	33%
Illinois	4%	37%

Public-supply withdrawals in 2015 were 7 percent less than in 2010, continuing the decline first observed in 2010. Restrictions on public-supply water use were either mandated or encouraged in California and Texas in 2015, in response to severe droughts.



Data sources

Methods for estimating public-supply withdrawals, source of water, population served, and domestic deliveries varied by State. Common sources of information about withdrawals by source included data collected from water suppliers by State water regulatory agencies or through surveys. Estimates of the population served by public supply were derived using various sources, including reports from State agencies, the EPA SDWIS database, U.S. Census data, and information on service connections from public suppliers. Methods for estimating domestic deliveries included surveys of public-supply sales information, calculations using coefficients for per capita use, and development of average percentages of deliveries to various customer categories.

Category history

- 1950: Municipal
- 1955 and later: Public Supply

Public supply deliveries:

- 1960-1965: combined estimate of deliveries for industrial and commercial use broken down by air conditioning and other, and combined estimate for domestic deliveries and losses
- 1970-1975: combined estimate of deliveries for industrial and commercial use, and combined estimate for domestic use and losses
- 1980: combined estimate of deliveries for industrial and commercial use, and combined estimate for domestic and public use including losses
- 1985-1995: estimates of deliveries for domestic, commercial, industrial, thermoelectric power, and public use and losses
- 2000: no estimates of deliveries

- 2005 and later: estimates of deliveries for domestic use and a combined estimate of all other uses and system losses

[Graphic of category changes over time](#)

Below are links for other categories of water use.



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[Water Use in the United States](#)

The USGS works in cooperation with local, State, and Federal agencies to collect water-use information, then compiles these data to produce water-use information aggregated at the county, state, and national levels. Every five years, data at the county level are compiled into a national water-use data system and State-level data are published in a national...

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[Domestic Water Use](#)

Domestic water use includes indoor and outdoor uses at residences, and includes uses such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, watering lawns and gardens, and maintaining pools. Domestic water use includes potable and non-potable water provided to households by a public water supplier (domestic deliveries) and self-supplied water use. Self...

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[Irrigation Water Use](#)

Irrigation water use includes water that is applied by an irrigation system to sustain plant growth in agricultural and horticultural practices. Irrigation also includes water that is used

for pre-irrigation, frost protection, chemical application, weed control, field preparation, crop cooling, harvesting, dust suppression, and leaching salts from the root zone.

Estimates of irrigation...

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Thermoelectric Power Water Use

Water for thermoelectric power is used in the process of generating electricity with steam-driven turbine generators. Since 2000, thermoelectric-power withdrawals have been compiled by cooling-system type. Once-through cooling refers to cooling systems in which water is circulated through heat exchangers, and then returned to the source.

Recirculating cooling refers to cooling systems in which...

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Industrial Water Use

Industrial withdrawals provide water for such purposes as fabricating, processing, washing, diluting, cooling, or transporting a product; incorporating water into a product; or for sanitation needs within the manufacturing facility. Some industries that use large amounts of water produce such commodities as food, paper, chemicals, refined petroleum, or primary metals. Water for industrial use...

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Mining Water Use

Mining water use is water used for the extraction of minerals that may be in the form of solids, such as coal, iron, sand, and gravel; liquids, such as crude petroleum; and gases, such as natural gas. The category includes quarrying, milling of mined materials, injection of water for secondary oil recovery or for unconventional oil and gas recovery (such as hydraulic fracturing), and other...

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Livestock Water Use



Livestock water use is water associated with livestock watering, feedlots, dairy operations, and other on-farm needs. Livestock includes dairy cows and heifers, beef cattle and calves, sheep and lambs, goats, hogs and pigs, horses, and poultry. Other livestock water uses include cooling of facilities for the animals and products, dairy sanitation and wash down of facilities, animal waste-...

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Aquaculture Water Use

Aquaculture water use is water associated with raising organisms that live in water—such as finfish and shellfish—for food, restoration, conservation, or sport. Aquaculture production occurs under controlled feeding, sanitation, and harvesting procedures primarily in ponds, flowthrough raceways, and, to a lesser extent, cages, net pens, and closed-recirculation tanks.

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Below are data or web applications associated with water use.



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Water-use data available from USGS

The U.S. Geological Survey compiles water-use estimates every five years for each State, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. Archived datasets underlying the published "Estimated Use of Water in the United States" reports are available from the above link. County data incorporating any revisions can be found on ...

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