

# Groundwater Use in California

## Overview<sup>1</sup>

### Total

Groundwater (mgd — fresh, not saline)..... 17,100  
Percentage of total freshwater\* supply for state..... 66.80%

### Public Supply

Groundwater (mgd) ..... 2,370  
Percentage of total groundwater..... 13.86%  
Percentage of total public supply ..... 46.02%

### Individual Household

Groundwater (mgd) ..... 108  
Percentage of total groundwater..... 0.63%  
Percentage of total individual household supply ..... 85.04%

### Irrigation

Groundwater (mgd) .....13,900  
Percentage of total groundwater..... 81.29%  
Percentage of total irrigation..... 73.16%

### Livestock/Aquaculture

Groundwater (mgd) ..... 329  
Percentage of total groundwater..... 1.92%  
Percentage of total livestock/aquaculture..... 36.15%

### Industrial, Self-Supplied

Groundwater (mgd) ..... 397  
Percentage of total groundwater..... 2.32%  
Percentage of total industrial, self-supplied ..... 99.50%

### Mining

Groundwater (mgd) ..... 30.2  
Percentage of total groundwater..... 0.18%  
Percentage of total mining..... 65.94%

### Thermoelectric

Groundwater (mgd) ..... 19.6  
Percentage of total groundwater..... 0.11%  
Percentage of total thermoelectric..... 53.85%

(mgd = million gallons per day)

\*All totals and ratios are measures of freshwater only.

<sup>1</sup> US Geological Survey, Estimated Use of Water in the United States in 2015, published 2018.

<sup>2</sup> US Census Bureau 2013 American Housing Survey.

<sup>3</sup> *Ibid.*

<sup>4</sup> US Geological Survey, Estimated Use of Water in the United States in 2015, published 2018.

<sup>5</sup> USEPA Federal Safe Drinking Water Information System, data for 2019.

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*

<sup>8</sup> US Census of Agriculture 2013 Farm and Ranch Irrigation Survey.

## Groundwater's Role in California's Economic Vitality

- Few states can accurately or confidentially determine how many residential wells are in place. For each region, the American Housing Survey by the U.S. Census provides regional data. California is found in the West, along with these other states: Alaska, Hawaii, Washington, Oregon, California, Idaho, Utah, Nevada, Arizona, New Mexico, Colorado, Wyoming, and Montana. The last American Housing Survey Census indicates this region had 1,540,000<sup>2</sup> households served by residential wells, with an average of 2.97<sup>3</sup> persons per household. The USGS estimates the population of self-supplied water supply users in California to be 1,440,000 for which groundwater is 85% of their water source<sup>4</sup>.
- 2,081 community water systems use groundwater for 7,286,000 people<sup>5</sup>
- 1,393 non-community, non-transient water systems use groundwater for 371,400 people<sup>6</sup>
- 2,874 non-community, transient water systems use groundwater for 603,200 people<sup>7</sup>
- 59,500 irrigation wells used serving 23,600 farms and 3,860,000 acres<sup>8</sup>



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# California's Groundwater Industry Employment

Men and women working to provide and protect California's groundwater resources for the benefit of people, business, and our environment.

## California's Contracting Employment

Drill and service water wells, install and service pumps, install and service point of use water treatment devices. This portion of the industry is characterized by small firms, many of which are multi-generation family-owned and operated.<sup>9</sup>

- 418 firms employ an estimated 3,854 people
- Annual estimated sales of \$1,050 million

## California's Scientists and Engineers Employment

Geologists, hydrogeologists, engineers, geochemists, geophysicists, microbiologists, regulators.

### Environmental Consulting<sup>10</sup>

NAICS 54162: Establishments primarily engaged in providing advice and assistance on environmental issues, such as the control of environmental contamination from pollutants, toxic substances, and hazardous materials.

- 4,161 firms employ an estimated 15,946 people
- Annual estimated sales of \$3,083 million

### Remediation<sup>11</sup>

NAICS 56291: Establishments include those engaged in remediation and cleanup of contaminated buildings, mine sites, soil, or groundwater.

- 552 firms employ an estimated 8,540 people
- Annual estimated sales of \$2,260.7 million

### Public Service and Universities, Colleges, and Research Centers

- Many more dedicated individuals



<sup>9</sup> InfoUSA, SIC 1781, June 2019.

<sup>10</sup> Barnes Reports: Environmental Consulting Services Industry (NAICS 54162); C. Barnes & Co., 2019.

<sup>11</sup> Barnes Reports: Remediation Services Industry (NAICS 56291); C. Barnes & Co., 2019.