

Groundwater Use in Alaska

Overview¹

Total

Groundwater (mgd — fresh, not saline)..... 226
Percentage of total freshwater* supply for state..... 35.70%

Public Supply

Groundwater (mgd) 37.8
Percentage of total groundwater.....16.73%
Percentage of total public supply 38.10%

Individual Household

Groundwater (mgd) 9.8
Percentage of total groundwater..... 4.34%
Percentage of total individual household supply 85.96%

Irrigation

Groundwater (mgd) 1.50
Percentage of total groundwater..... 0.66%
Percentage of total irrigation..... 98.68%

Livestock/Aquaculture

Groundwater (mgd) 169
Percentage of total groundwater..... 74.78%
Percentage of total livestock/aquaculture..... 41.21%

Industrial, Self-Supplied

Groundwater (mgd) 6.7
Percentage of total groundwater..... 2.96%
Percentage of total industrial, self-supplied 80.24%

Mining

Groundwater (mgd) 0
Percentage of total groundwater..... 0
Percentage of total mining..... 0

Thermoelectric

Groundwater (mgd) 0.6
Percentage of total groundwater..... 0.27%
Percentage of total thermoelectric..... 0.90%

(mgd = million gallons per day)

*All totals and ratios are measures of freshwater only.

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

² US Census Bureau 2013 American Housing Survey.

³ US Census Bureau 2013 American Community Survey.

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

⁵ US EPA Federal Safe Drinking Water Information System, data for 2019.

⁶ *Ibid.*

⁷ *Ibid.*

⁸ Census of Agriculture 2013 Farm and Ranch Irrigation Survey.

Groundwater's Role in Alaska'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. Alaska 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 1,540,000² households served by residential wells, with an average of 2.88³ persons per household. The USGS estimates the population of self-supplied water supply users in Alaska to be 189,000 for which groundwater is 86% of their water source⁴.
- 291 community water systems use groundwater for 281,000 people⁵
- 185 non-community, non-transient water systems use groundwater for 42,300 people⁶
- 671 non-community, transient water systems use groundwater for 93,500 people⁷
- 142 irrigation wells used serving 114 farms and 863 acres⁸



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Alaska's Groundwater Industry Employment

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

Alaska'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.⁹

- 50 firms employ an estimated 295 people
- Annual estimated sales of \$80.0 million

Alaska's Scientists and Engineers Employment

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

Environmental Consulting¹⁰

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.

- 219 firms employ an estimated 823 people
- Annual estimated sales of \$159.5 million

Remediation¹¹

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

- 111 firms employ an estimated 687 people
- Annual estimated sales of \$167.3 million

Public Service and Universities, Colleges, and Research Centers

- Many more dedicated individuals



⁹ InfoUSA, SIC 1781, June 2019.

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

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