

Groundwater Use in Vermont

Overview¹

Total

Groundwater (mgd — fresh, not saline)..... 42
Percentage of total freshwater* supply for state..... 9.65%

Public Supply

Groundwater (mgd) 14
Percentage of total groundwater..... 33.70%
Percentage of total public supply 32.50%

Individual Household

Groundwater (mgd) 13.6
Percentage of total groundwater..... 32.70%
Percentage of total individual household supply 100%

Irrigation

Groundwater (mgd) 0.77
Percentage of total groundwater..... 1.85%
Percentage of total irrigation..... 31.40%

Livestock/Aquaculture

Groundwater (mgd) 10.2
Percentage of total groundwater..... 24.50%
Percentage of total livestock/aquaculture..... 61.70%

Industrial, Self-Supplied

Groundwater (mgd) 2
Percentage of total groundwater..... 4.81%
Percentage of total industrial, self-supplied 35.20%

Mining

Groundwater (mgd) 0.32
Percentage of total groundwater..... 0.77%
Percentage of total mining..... 8.31%

Thermoelectric

Groundwater (mgd) 0.74
Percentage of total groundwater..... 1.78%
Percentage of total thermoelectric..... 0.21%

(mgd = million gallons per day)

*All totals and ratios are measures of freshwater only.

¹ US Geological Survey, November 2014 report on 2010 water use.

² US Census Bureau 2013 American Housing Survey.

³ US Census Bureau 2013 American Community Survey.

⁴ US Geological Survey, November 2014 report on 2010 water use.

⁵ *Ibid.*

⁶ US EPA Federal Safe Drinking Water Information System Data for 2014.

⁷ *Ibid.*

⁸ Census of Agriculture 2013 Farm and Ranch Irrigation Survey.

Groundwater's Role in Vermont'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. Vermont is found in the Northeast, along with these other states: Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania. The last American Housing Survey Census indicates this region had 3,210,000² households served by residential wells, with an average of 2.37³ persons per household. The U.S. Census stopped asking citizens their source of water supply following the 1990 Census. The USGS estimates the population of self-supplied water supply users in Vermont to be 182,000⁴.
- 334 community water systems use groundwater for 184,000 people⁵
- 240 non-community, non-transient water systems use groundwater for 41,100 people⁶
- 687 non-community, transient water systems use groundwater for 94,600 people⁷
- 309 irrigation wells used serving 276 farms and 402 acres⁸



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Vermont's Groundwater Industry Employment

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

Vermont'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

- 24 firms employ an estimated 108 people¹⁰
- Annual estimated sales of \$23.4 million

Vermont's Scientists and Engineers Employment

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

Environmental Consulting¹¹

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.

- 108 firms employ an estimated 338 people
- Annual estimated sales of \$48.7 million

Remediation¹²

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

- 17 firms employ an estimated 137 people
- Annual estimated sales of \$18.4 million

Public Service and Universities, Colleges, and Research Centers

- Many more dedicated individuals



⁹ InfoUSA, SIC 1781, March 2015.

¹⁰ Barnes Reports: Remediation Services Industry (NAICS 56291); C. Barnes & Co., 2015.

¹¹ Barnes Reports: Environmental Consulting Services Industry (NAICS 54162); C. Barnes & Co., 2015.

¹² Barnes Reports: Remediation Services Industry (NAICS 56291); C. Barnes & Co., 2015.