

Groundwater Use in Massachusetts

Overview¹

Total

Groundwater (mgd — fresh, not saline)..... 380
Percentage of total freshwater* supply for state..... 41.30%

Public Supply

Groundwater (mgd) 199
Percentage of total groundwater..... 52.37%
Percentage of total public supply 30.71%

Individual Household

Groundwater (mgd) 35.1
Percentage of total groundwater..... 9.24%
Percentage of total individual household supply 100%

Irrigation

Groundwater (mgd) 114
Percentage of total groundwater..... 30.00%
Percentage of total irrigation..... 82.01%

Livestock/Aquaculture

Groundwater (mgd) 8.77
Percentage of total groundwater..... 2.31%
Percentage of total livestock/aquaculture..... 80.02%

Industrial, Self-Supplied

Groundwater (mgd) 15.2
Percentage of total groundwater..... 4.00%
Percentage of total industrial, self-supplied 54.48%

Mining

Groundwater (mgd) 5.51
Percentage of total groundwater..... 1.45%
Percentage of total mining..... 57.40%

Thermoelectric

Groundwater (mgd) 1.10
Percentage of total groundwater..... 0.29%
Percentage of total thermoelectric..... 2.20%

(mgd = million gallons per day)

*All totals and ratios are measures of freshwater only.

¹ US Geological Survey, June 2018 report on 2015 water use.

² US Census Bureau 2013 American Housing Survey.

³ US Census Bureau 2013 American Community Survey.

⁴ US Geological Survey, June 2018 report on 2015 water use.

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 Massachusetts'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. Massachusetts 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 2.54³ persons per household. The USGS estimates the population of self-supplied water supply users in Massachusetts to be 616,000, all of which use groundwater.⁴
- 346 community water systems use groundwater for 1,739,000 people⁵
- 253 non-community, non-transient water systems use groundwater for 69,000 people⁶
- 904 non-community, transient water systems use groundwater for 131,800 people⁷
- 1,090 irrigation wells used serving 691 farms and 7,920 acres⁸



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Massachusetts's Groundwater Industry Employment

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

Massachusetts'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

- 66 firms employ an estimated 405 people
- Annual estimated sales of \$119.8 million

Massachusetts'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.

- 809 firms employ an estimated 3,847 people
- Annual estimated sales of \$721.4 million

Remediation¹¹

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

- 199 firms employ an estimated 2,493 people
- Annual estimated sales of \$635.2 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.