

Groundwater Use in Minnesota



Total

Groundwater (mgd — fresh, not saline)..... 736
 Percentage of total freshwater* supply for state..... 19.3%

Public Supply

Groundwater (mgd) 353
 Percentage of total groundwater..... 48.0%
 Percentage of total public supply 65.1%

Individual Household

Groundwater (mgd) 79
 Percentage of total groundwater..... 10.7%
 Percentage of total individual household supply 100%

Irrigation

Groundwater (mgd) 171
 Percentage of total groundwater..... 23.2%
 Percentage of total irrigation..... 86.8%

Livestock/Aquaculture

Groundwater (mgd) 61
 Percentage of total groundwater..... 8.29%
 Percentage of total livestock/aquaculture..... 80.0%

Industrial, Self-Supplied

Groundwater (mgd) 61.8
 Percentage of total groundwater..... 8.40%
 Percentage of total industrial, self-supplied 46.1%

Mining

Groundwater (mgd) 8.32
 Percentage of total groundwater..... 1.13%
 Percentage of total mining..... 2.92%

Thermoelectric

Groundwater (mgd) 2.34
 Percentage of total groundwater..... 0.32%
 Percentage of total thermoelectric..... 0.09%

(mgd = million gallons per day)

Groundwater's Role in Minnesota's Economic Vitality

- Few states can accurately or confidently determine how many residential wells are in place. For each region, the American Housing Survey by the U.S. Census provides regional data. The Midwest region includes the states of Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, North Dakota, South Dakota, Iowa, Nebraska, Kansas, and Missouri. The last American Housing Survey indicates this region had 3,990,000¹ households served by residential wells, with an average of 2.49² 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 Minnesota to be 1,130,000³.
- 918 community water systems use groundwater for 2,910,000 people⁴.
- 486 non-community, non-transient water systems use groundwater for 65,700 people⁴.
- 5,400 non-community, transient water systems use groundwater for 524,000 people⁴.
- 5,390 irrigation wells are in use serving 1,890 farms and 467,000 acres⁵.

¹ U.S. Census Bureau 2013 American Housing Survey.

² U.S. Census Bureau 2013 American Community Survey.

³ U.S. Geological Survey, November 2014 report on 2010 water use.

⁴ U.S. EPA Federal Safe Drinking Water Information System Data for 2014.

⁵ Census of Agriculture 2013 Farm and Ranch Irrigation Survey.

* All totals and ratios are measures of freshwater only.

Minnesota's Groundwater Industry Employment

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

Minnesota'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.

- 175 firms employ an estimated 1,060 people⁶
- Annual estimated sales of \$345 million⁶

Minnesota's Scientists and Engineers Employment

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

Environmental Consulting⁷

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.

- 318 firms employ an estimated 1,010 people
- Annual estimated sales of \$153 million

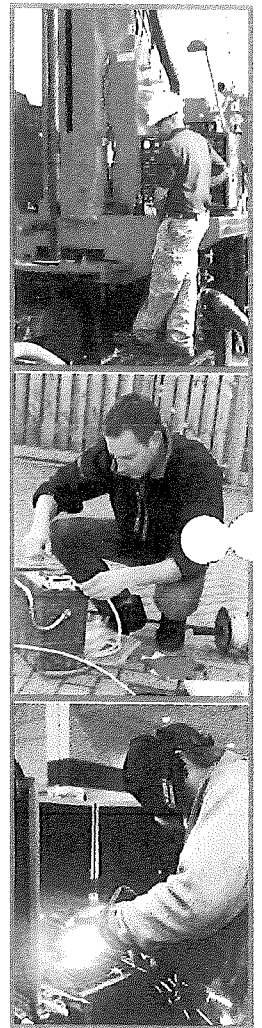
Remediation⁸

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

- 98 firms employ an estimated 911 people
- Annual estimated sales of \$135 million

Public Service and Universities, Colleges, and Research Centers

- Many more dedicated individuals



⁶ InfoUSA, SIC 1781, March 2015.

⁷ Barnes Reports: Environmental Consulting Services Industry (NAICS 54162); C. Barnes & Co., 2015.

⁸ Barnes Reports: Remediation Services Industry (NAICS 56291); C. Barnes & Co., 2015.