

Groundwater Use in North Dakota

Total

Groundwater (mgd — fresh, not saline).....	139
Percentage of total freshwater* supply for state.....	12.3%

Public Supply

Groundwater (mgd)	30.5
Percentage of total groundwater.....	21.9%
Percentage of total public supply	44.3%

Individual Household

Groundwater (mgd)	3.68
Percentage of total groundwater.....	2.65%
Percentage of total individual household supply	100%

Irrigation

Groundwater (mgd)	77.5
Percentage of total groundwater.....	55.8%
Percentage of total irrigation.....	47.0%

Livestock/Aquaculture

Groundwater (mgd)	12.9
Percentage of total groundwater.....	9.28%
Percentage of total livestock/aquaculture.....	46.9%

Industrial, Self-Supplied

Groundwater (mgd)	5.77
Percentage of total groundwater.....	4.15%
Percentage of total industrial, self-supplied	30.9%

Mining

Groundwater (mgd)	8.73
Percentage of total groundwater.....	6.28%
Percentage of total mining	65.2%

Thermoelectric

Groundwater (mgd)	0
Percentage of total groundwater.....	0.00%
Percentage of total thermoelectric.....	0.00%

(mgd = million gallons per day)

Groundwater's Role in North Dakota'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 2.33² 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 North Dakota to be 49,400³.
- 232 community water systems use groundwater for 227,000 people⁴.
- 35 non-community, non-transient water systems use groundwater for 3,640 people⁴.
- 163 non-community, transient water systems use groundwater for 14,200 people⁴.
- 1,480 irrigation wells are in use serving 326 farms and 155,000 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.

North Dakota's Groundwater Industry Employment

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

North Dakota'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.

- 47 firms employ an estimated 979 people⁶
- Annual estimated sales of \$222 million⁶

North Dakota'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.

- 37 firms employ an estimated 119 people
- Annual estimated sales of \$18.3 million

Remediation⁸

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

- 22 firms employ an estimated 160 people
- Annual estimated sales of \$22.1 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.