

Groundwater Use in North Dakota

Overview¹

Total

Groundwater (mgd — fresh, not saline)..... 187
Percentage of total freshwater* supply for state..... 13.6%

Public Supply

Groundwater (mgd) 35.4
Percentage of total groundwater..... 18.9%
Percentage of total public supply 42.0%

Individual Household

Groundwater (mgd) 3.69
Percentage of total groundwater..... 1.97%
Percentage of total individual household supply 100%

Irrigation

Groundwater (mgd) 102.0
Percentage of total groundwater..... 54.5%
Percentage of total irrigation..... 43.8%

Livestock/Aquaculture

Groundwater (mgd) 12.5
Percentage of total groundwater..... 6.68%
Percentage of total livestock/aquaculture..... 47.9%

Industrial, Self-Supplied

Groundwater (mgd) 6.18
Percentage of total groundwater..... 3.30%
Percentage of total industrial, self-supplied 31.5%

Mining

Groundwater (mgd) 26.2
Percentage of total groundwater..... 14.01%
Percentage of total mining..... 85.3%

Thermoelectric

Groundwater (mgd) 0.42
Percentage of total groundwater..... 0.22%
Percentage of total thermoelectric..... 0.04%

(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, released 2018.

² North Dakota State Water Commission Water Permit Database

³ US EPA Federal Safe Drinking Water Information System Data for 2019.

⁴ *Ibid.*

⁵ *Ibid.*

⁶ Census of Agriculture 2013 Farm and Ranch Irrigation Survey.

Groundwater's Role in North Dakota's Economic Vitality

- Approximately 26,500 known residential wells statewide.²
- 218 community water systems use groundwater for 241,100 people³
- 7 non-community, non-transient water systems use groundwater for 716 people⁴
- 72 non-community, transient water systems use groundwater for 5,800 people⁵
- 1,480 irrigation wells used serving 326 farms and 155,000 acres⁶

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.⁷

- 33 firms employ an estimated 1,203 people
- Annual estimated sales of \$448.9 million

North Dakota's Scientists and Engineers Employment

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

Environmental Consulting⁸

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.

- 54 firms employ an estimated 179 people
- Annual estimated sales of \$34.2 million

Remediation⁹

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

- 33 firms employ an estimated 226 people
- Annual estimated sales of \$53.7 million

Public Service and Universities, Colleges, and Research Centers

- Many more dedicated individuals



⁷ InfoUSA, SIC 1781, June 2019.

⁸ Barnes Reports: Environmental Consulting Services Industry (NAICS 54162); C. Barnes & Co., 2019.

⁹ Barnes Reports: Remediation Services Industry (NAICS 56291); C. Barnes & Co., 2019.