

Groundwater Use in Kentucky

Overview¹

Total

Groundwater (mgd — fresh, not saline)..... 207
Percentage of total freshwater* supply for state..... 7.31%

Public Supply

Groundwater (mgd) 87.4
Percentage of total groundwater..... 42.2%
Percentage of total public supply 15.8%

Individual Household

Groundwater (mgd) 14.5
Percentage of total groundwater..... 7.00%
Percentage of total individual household supply 65.6%

Irrigation

Groundwater (mgd) 2.84
Percentage of total groundwater..... 1.37%
Percentage of total irrigation..... 7.17%

Livestock/Aquaculture

Groundwater (mgd) 2.65
Percentage of total groundwater..... 1.28%
Percentage of total livestock/aquaculture..... 2.97%

Industrial, Self-Supplied

Groundwater (mgd) 77.3
Percentage of total groundwater..... 37.3%
Percentage of total industrial, self-supplied 34.6%

Mining

Groundwater (mgd) 17.6
Percentage of total groundwater..... 8.50%
Percentage of total mining..... 43.3%

Thermoelectric

Groundwater (mgd) 4.96
Percentage of total groundwater..... 2.40%
Percentage of total thermoelectric..... 0.27%

(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 University of Kentucky Geological Survey Ground Water Data Repository

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 Kentucky's Economic Vitality

- Approximately 32,200 known residential wells statewide.²
- 79 community water systems use groundwater for 363,000 people³
- 12 non-community, non-transient water systems use groundwater for 5,760 people⁴
- 32 non-community, transient water systems use groundwater for 3,440 people⁵
- 427 irrigation wells used serving 249 farms and 26,500 acres⁶



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Kentucky's Groundwater Industry Employment

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

Kentucky'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

- 43 firms employ an estimated 292 people
- Annual estimated sales of \$76.0 million

Kentucky'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.

- 265 firms employ an estimated 916 people
- Annual estimated sales of \$180.5 million

Remediation⁹

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

- 71 firms employ an estimated 674 people
- Annual estimated sales of \$173.3 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.