

# Groundwater Use in Hawaii

## Overview<sup>1</sup>

### Total

Groundwater (mgd — fresh, not saline)..... 338  
Percentage of total freshwater\* supply for state..... 49.5%

### Public Supply

Groundwater (mgd) ..... 252  
Percentage of total groundwater..... 74.6%  
Percentage of total public supply ..... 94.4%

### Individual Household

Groundwater (mgd) ..... 0.66  
Percentage of total groundwater..... 0.20%  
Percentage of total individual household supply ..... 8.12%

### Irrigation

Groundwater (mgd) ..... 73.8  
Percentage of total groundwater..... 21.8%  
Percentage of total irrigation..... 19.2%

### Livestock/Aquaculture

Groundwater (mgd) ..... 9.1  
Percentage of total groundwater..... 2.69%  
Percentage of total livestock/aquaculture..... 47.4%

### Industrial, Self-Supplied

Groundwater (mgd) ..... 0.24  
Percentage of total groundwater..... 0.07%  
Percentage of total industrial, self-supplied ..... 100.0%

### Mining

Groundwater (mgd) ..... 0.89  
Percentage of total groundwater..... 0.26%  
Percentage of total mining..... 96.7%

### Thermoelectric

Groundwater (mgd) ..... 1.48  
Percentage of total groundwater..... 0.44%  
Percentage of total thermoelectric..... 100.0%

(mgd = million gallons per day)

\*All totals and ratios are measures of freshwater only.

<sup>1</sup> US Geological Survey, Estimated Use of Water in the United States in 2015, released 2018.

<sup>2</sup> *Ibid.*

<sup>3</sup> US EPA Federal Safe Drinking Water Information System Data for 2019.

<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*

<sup>6</sup> Census of Agriculture 2013 Farm and Ranch Irrigation Survey.

## Groundwater's Role in Hawaii's Economic Vitality

- The USGS estimates the population of self-supplied water supply users in Hawaii to be 56,300 with 8.1% of the supply from groundwater sources.<sup>2</sup>
- 109 community water systems use groundwater for 1,321,300 people<sup>3</sup>
- 13 non-community, non-transient water systems use groundwater for 11,700 people<sup>4</sup>
- 4 non-community, transient water systems use groundwater for 2,500 people<sup>5</sup>
- 171 irrigation wells used serving 129 farms and 4,323 acres<sup>6</sup>



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# Hawaii's Groundwater Industry Employment

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

## Hawaii'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.<sup>7</sup>

- 11 firms employ an estimated 114 people
- Annual estimated sales of \$30.4 million

## Hawaii's Scientists and Engineers Employment

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

### Environmental Consulting<sup>8</sup>

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.

- 160 firms employ an estimated 504 people
- Annual estimated sales of \$96.1 million

### Remediation<sup>9</sup>

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

- 27 firms employ an estimated 314 people
- Annual estimated sales of \$77 million

### Public Service and Universities, Colleges, and Research Centers

- Many more dedicated individuals



<sup>7</sup> InfoUSA, SIC 1781, June 2019.

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

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