# **Groundwater Use in Arizona**

### **Overview**<sup>1</sup>

#### Total

Groundwater (mgd — fresh, not saline)	2,760
Percentage of total freshwater* supply for state	. 46.15%

#### **Public Supply**

Groundwater (mgd)	569
Percentage of total groundwater	
Percentage of total public supply	47.42%

#### Individual Household

Groundwater (mgd)	24
Percentage of total groundwater	
Percentage of total individual household supply	100%

#### Irrigation

Groundwater (mgd)	1,970
Percentage of total groundwater7	
Percentage of total irrigation 4	3.49%

#### Livestock/Aquaculture

Groundwater (mgd)	62.7
Percentage of total groundwater	2.27%
Percentage of total livestock/aquaculture	85.42%

#### Industrial, Self-Supplied

Groundwater (mgd)	6.1
Percentage of total groundwater	
Percentage of total industrial, self-supplied	

#### Mining

Groundwater (mgd)	68.3
Percentage of total groundwater	2.47%
Percentage of total mining	100%

#### Thermoelectric

Groundwater (mgd)	57.7
Percentage of total groundwater	2.09%
Percentage of total thermoelectric	. 69.10%

(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, published in 2018. <sup>2</sup> US Census Bureau 2013 American Housing Survey.

<sup>3</sup> Ibid.

<sup>4</sup> US Geological Survey, Estimated Use of Water in the United States in 2015, published in 2018.

<sup>5</sup> US EPA Federal Safe Drinking Water Information System Data for 2019.

<sup>6</sup> Ibid. <sup>7</sup> Ibid.

<sup>8</sup> Census of Agriculture 2013 Farm and Ranch Irrigation Survey.



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

- Few states can accurately or confidentially determine how many residential wells are in place. For each region, the American Housing Survey by the U.S. Census provides regional data. Arizona is found in the West, along with these other states: Alaska, Hawaii, Washington, Oregon, California, Idaho, Utah, Nevada, Arizona, New Mexico, Colorado, Wyoming, and Montana. The last American Housing Survey Census indicates this region had 1,540,000<sup>2</sup> households served by residential wells, with an average of 2.7<sup>3</sup> persons per household. The USGS estimates the population of selfsupplied water supply users in Arizona to be 218,000, all supplied by groundwater<sup>4</sup>.
- 704 community water systems use groundwater for 2,720,000 people<sup>5</sup>
- 201 non-community, non-transient water systems use groundwater for 123,500 people<sup>6</sup>
- 556 non-community, transient water systems use groundwater for 106,100 people<sup>7</sup>
- 4,940 irrigation wells used serving 1,960 farms and 315,000 acres<sup>8</sup>

## **Arizona's Groundwater Industry Employment**

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

## **Arizona'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>9</sup>

- 78 firms employ an estimated 835 people
- Annual estimated sales of \$192.9 million

## **Arizona's Scientists and Engineers Employment**

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

#### Environmental Consulting<sup>10</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.

- 493 firms employ an estimated 1,741 people
- Annual estimated sales of \$332.4 million

#### **Remediation**<sup>11</sup>

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

- 76 firms employ an estimated 876 people
- Annual estimated sales of \$221.6 million

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

Many more dedicated individuals



<sup>10</sup> Barnes Reports: Environmental Consulting Services Industry (NAICS 54162); C. Barnes & Co., 2019.

<sup>&</sup>lt;sup>11</sup> Barnes Reports: Remediation Services Industry (NAICS 56291); C. Barnes & Co., 2019.



<sup>&</sup>lt;sup>9</sup> InfoUSA, SIC 1781, June 2019.