

# Groundwater Use in Arizona

## Overview<sup>1</sup>

### Total

Groundwater (mgd — fresh, not saline)..... 2,550  
Percentage of total freshwater\* supply for state..... 41.90%

### Public Supply

Groundwater (mgd) ..... 585  
Percentage of total groundwater..... 22.90%  
Percentage of total public supply ..... 48.40%

### Individual Household

Groundwater (mgd) ..... 27.2  
Percentage of total groundwater..... 1.07%  
Percentage of total individual household supply ..... 100%

### Irrigation

Groundwater (mgd) ..... 1,690  
Percentage of total groundwater..... 66.30%  
Percentage of total irrigation..... 37.00%

### Livestock/Aquaculture

Groundwater (mgd) ..... 66.5  
Percentage of total groundwater..... 2.61%  
Percentage of total livestock/aquaculture..... 89.50%

### Industrial, Self-Supplied

Groundwater (mgd) ..... 12.9  
Percentage of total groundwater..... 0.51%  
Percentage of total industrial, self-supplied ..... 100%

### Mining

Groundwater (mgd) ..... 86.6  
Percentage of total groundwater..... 3.40%  
Percentage of total mining..... 100%

### Thermoelectric

Groundwater (mgd) ..... 77.3  
Percentage of total groundwater..... 3.03%  
Percentage of total thermoelectric..... 74.30%

(mgd = million gallons per day)

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

<sup>1</sup> US Geological Survey, November 2014 report on 2010 water use.

<sup>2</sup> US Census Bureau 2013 American Housing Survey.

<sup>3</sup> US Census Bureau 2013 American Community Survey.

<sup>4</sup> US Geological Survey, November 2014 report on 2010 water use.

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

<sup>6</sup> US EPA Federal Safe Drinking Water Information System Data for 2014.

<sup>7</sup> *Ibid.*

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

## 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 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 Arizona to be 218,000<sup>4</sup>.
- 708 community water systems use groundwater for 2,650,000 people<sup>5</sup>
- 199 non-community, non-transient water systems use groundwater for 120,000 people<sup>6</sup>
- 561 non-community, transient water systems use groundwater for 107,000 people<sup>7</sup>
- 4,940 irrigation wells used serving 1,960 farms and 315,000 acres<sup>8</sup>



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# 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>

- 89 firms employ an estimated 810 people<sup>10</sup>
- Annual estimated sales of \$245 million

## Arizona's Scientists and Engineers Employment

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

### Environmental Consulting<sup>11</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.

- 393 firms employ an estimated 1,260 people
- Annual estimated sales of \$180 million

### Remediation<sup>12</sup>

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

- 83 firms employ an estimated 1,730 people
- Annual estimated sales of \$365 million

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

- Many more dedicated individuals



<sup>9</sup> InfoUSA, SIC 1781, March 2015.

<sup>10</sup> Barnes Reports: Remediation Services Industry (NAICS 56291); C. Barnes & Co., 2015.

<sup>11</sup> Barnes Reports: Environmental Consulting Services Industry (NAICS 54162); C. Barnes & Co., 2015.

<sup>12</sup> Barnes Reports: Remediation Services Industry (NAICS 56291); C. Barnes & Co., 2015.