

# Water Use—When Raw Numbers Don’t Tell the Whole Story

## Gallons Per Capita Per Day

Water use is typically reported in gallons per capita per day (GPCD)—the water used per day—by most water providers. GPCD is helpful in estimating future water demand as well as tracking use and conservation achievements. Simply put, GPCD is calculated by dividing water use by the population, divided by 365 (the number of days in a year).

However, there is not currently a national standard for how water use and/or population is determined. Some cities and states only report certain types of water use and/or apply a credit for water that is returned to the system; some calculate population by applying the average person per household to all residential units (rather than using U.S. Census Bureau population estimates). These practices decrease water use and inflate population to generate lower water use numbers—drastically altering the data.

In addition, GPCD does not account for the climate and demographic differences of communities, which also significantly impact water use. For these reasons, water providers discourage the use of GPCD numbers to compare water use efficiencies.

## How Utah Reports Water Use

Utah has one of the most comprehensive water use accounting practices in the United States. Unlike other cities or states, Utah includes all potable (treated water), secondary (untreated water) and reuse (treated wastewater) by all users (residential, commercial, institutional and industrial) in its GPCD, thereby reflecting complete water use information.

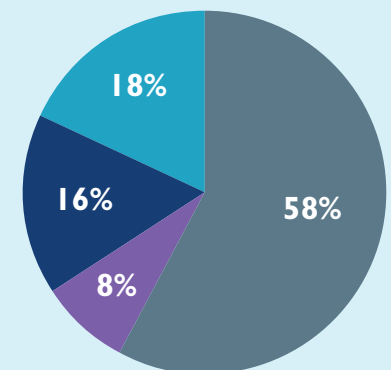
Utah uses the U.S. Census Bureau’s estimated permanent resident population, adjusted to water provider service area boundaries. Many of Utah’s counties, including Washington County, have a high number of second homes and are popular tourist destinations—seasonal residents and visitors are not included in the population.

## Water Use in Washington County

Tracking water use is an integral part of Washington County’s comprehensive water plan and helps set local goals, improve watering practices and demonstrate accountability.

In 2017, Washington County residents used 177 gallons per person daily. Factoring in all potable water use (residential, commercial, institutional and industrial), the total was 226 GPCD. The total system water use was 307 GPCD (see chart)<sup>1</sup>—approximately 2 percent less than in 2016.<sup>2</sup>

Washington County 2017  
Total System GPCD



- Residential Potable
- Residential Secondary
- CII Potable
- CII Secondary

CII = Commercial, institutional and industrial

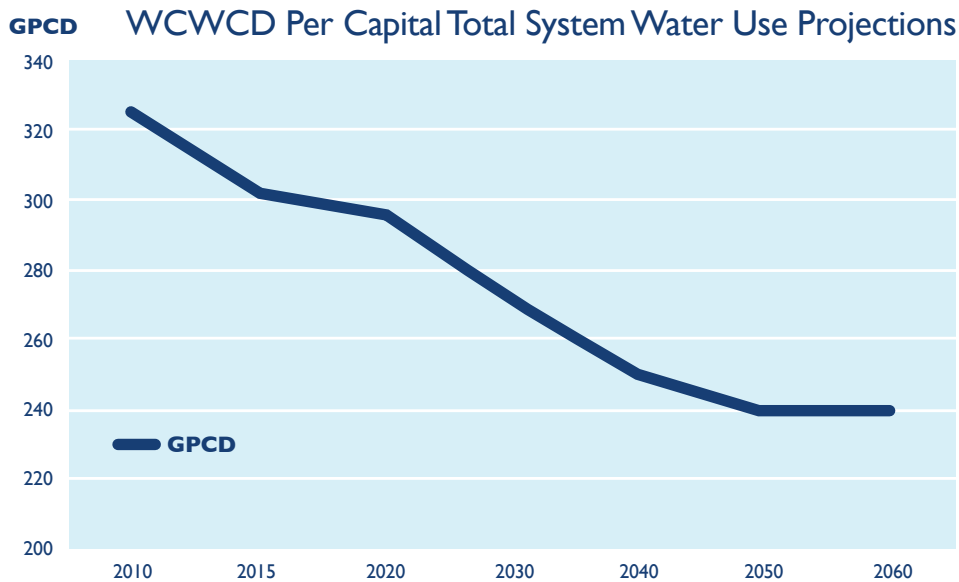
<sup>1,2</sup> Utah Division of Water Resources, 2017 Municipal and Industrial Water Use Data. January 23, 2019

## Washington County Leads Utah in Water Conservation

As the hottest, most arid county in Utah, water conservation is essential to Washington County’s future. The Washington County Water Conservancy District (WCWCD) and its municipal partners have invested more than \$60 million in recent water conservation efforts. In fact, Washington County was the first county to meet the governor’s statewide water conservation goal to reduce use by 25 percent. In many ways—especially landscape design—Washington County leads the state in water conservation.

The state is developing updated regional water conservation goals appropriate for different areas of the state, which will be made public in the coming months. The state has decided that 2015 will be the baseline against which water conservation is measured. In the WCWCD’s current water resource planning, it has assumed further water use reductions from the reported 2015 per capita use by 20 percent by 2060.

The graph below uses the 20 percent reduction from reported 2015 levels to calculate the WCWCD per capita water use projections through 2060.<sup>3</sup>



GPCD = gallons per capita per day

<sup>3</sup> Lake Powell Pipeline, Water Needs Assessment: Demand and Supply Update, Utah Board of Water Resources, November 16, 2018.