



PROFILES IN REUSE: Arizona



The amount of water on Earth does not change—all water has been recycled naturally since the beginning of time.

While nearly 70% of the planet is covered by water, only 2.5% is freshwater, and only 1% is accessible to humans. Water reuse, also known as water recycling, is the process of intentionally capturing wastewater, graywater, stormwater, or saltwater and cleaning it for a designated beneficial freshwater purpose. Common uses for recycled water include drinking, irrigation, industrial processes, groundwater replenishment, and environmental restoration.



WATER REUSE IN ARIZONA

Arizona is home to one of the first water recycling plants in the United States, built in 1926 to serve Grand Canyon National Park. Decades later, Arizona cities such as Flagstaff, Tucson, and Scottsdale became pioneers in serving irrigation needs with recycled water through extensive systems of “purple pipes.” Communities throughout Arizona have been recharging aquifers with treated effluent as long as there have been wastewater treatment plants, and Scottsdale became one of the first communities in America to recharge groundwater supplies with purified recycled water in 1999.






WHY INVEST IN WATER REUSE?

Arizona is susceptible to drought and water scarcity due to arid conditions, low precipitation patterns, and reliance on imported and over-stressed water sources. Investment in water reuse can help Arizona build communities that are modern, sustainable, and stable—ready for families to flourish and businesses to grow. Arizona communities and businesses are investing in water reuse to ensure that our residents have safe drinking water supplies, our industries have water to expand and create jobs, our farmers have water to grow food, our environment is protected, and our economic future remains strong and secure.

Arizona’s Water Supply of the Future

Currently, approximately 5% of Arizona’s water demands are supplied by recycled water. In 2017, following years of collaboration with WateReuse Arizona, the Arizona Department of Environmental Quality (ADEQ) began developing direct potable reuse rules to ensure Arizonans have sufficient drinking water supply well into the future. When complete, these rules will guide a new generation of water reuse projects.

Recycled Water Is:

-  **COST EFFECTIVE**
Reusing water can be more cost effective than alternative supplies.
-  **ENVIRONMENTALLY SOUND**
Reusing water alleviates pressure on Arizona’s freshwater sources and natural systems.
-  **SAFE**
Water is purified to meet Arizona’s stringent state and federal water quality standards.
-  **RELIABLE**
Because wastewater is renewable, water reuse is the only sustainable source of freshwater.
-  **LOCALLY CONTROLLED**
Arizona communities that use recycled water are not beholden to nature or neighboring states for water.

WATER REUSE IN ARIZONA

Desert to Mountains

Keeping the Grand Canyon in Business



Tusayan, Arizona—the Gateway to the Grand Canyon—recycles **44% of their annual water**, with some businesses using **over 70% recycled water** for indoor and outdoor needs.

\$58 Million for Ski Slopes in Arizona



The Snowbowl, a ski resort in Arizona's San Francisco Peaks, uses from 300-450 acre-feet of reclaimed water per season for its slopes—sustaining a **\$58 million tourism industry**.

38,000 Acres of Farm Land



The Roosevelt Irrigation District transports both groundwater and recycled water for agricultural irrigation southwest of Phoenix.



80% of Arizona's Carbon-Free Electricity

Palo Verde, a nuclear power plant serving the needs of over **4 million people** across the southwestern US, uses **100% recycled water** for cooling.



62 Tucson Schools Are Irrigated with Recycled Water

Tucson students can learn about the benefits of recycled water first-hand at their schools' fields and landscaping.

2,400 Gallons of Pure Water Beer



The Arizona Pure Water Brew trailer provided advanced treated recycled water for **26 breweries** in 2016 and 2017, kicking off a culture of recycled water brewing in the state.



Helping Support 60% of Arizona's Wildlife

The Town of Gilbert uses recycled water to recharge desert riparian habitat like the Gilbert Riparian Preserve. These fragile riparian areas occur naturally on less than 1% of the land in Arizona but support **more than 60% of the wildlife including over 140 species of birds**.



24 Destination Golf Courses

Scottsdale Water provides recycled water to irrigate **24 destination golf courses**, offsetting potable water use.



About the WaterReuse Association

The WaterReuse Association is the nation's only trade association solely dedicated to advancing laws, policy, funding, and public acceptance of recycled water. WaterReuse represents a coalition of utilities that recycle water, businesses that support the development of recycled water projects, and consumers of recycled water. In addition to supporting members throughout the country, WaterReuse has active local sections in Arizona, California, Colorado, Florida, the Mid-Atlantic, Nevada, New Mexico, South Carolina, the Pacific Northwest, and Texas. To learn more, visit www.watereuse.org.