



PROFILES IN REUSE: Texas



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.

WHY INVEST IN WATER REUSE?

Texas is the second-largest state in the United States by both area and population. Between 2020 and 2070, the population is expected to increase from 29 to 51 million. Weather and topography in Texas range from arid desert in the west to subtropical in the east. Each region has unique reuse drivers based on geography, climate, population, and available supply.

Investment in water reuse can help build communities that are modern, sustainable, and stable—ready for families to flourish and businesses to grow. 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.

WATER REUSE IN TEXAS

Water has been reused for agricultural irrigation in Texas since the 1800s, and for industrial uses since the 1940s and 1950s in Odessa, Big Spring, and Amarillo. Today, reclaimed water is used for a wide range of purposes including power plant cooling, commercial and municipal irrigation, river and stream flow enhancement, natural gas and oil field production, augmentation of drinking water supplies, and more.



Every major city in Texas is practicing or planning on water reuse, including San Antonio, El Paso, Austin, Dallas, Fort Worth, and Houston. The first two direct potable reuse projects in the United States were in Texas: Big Spring (May 2013) and Wichita Falls (June 2014), and Texas communities continue to lead the way on innovative potable reuse projects.

RECYCLED WATER IS:



COST EFFECTIVE

Reusing water can be more cost effective than other alternative supplies.



ENVIRONMENTALLY SOUND

Reusing water alleviates pressure on Texas' freshwater sources and natural systems.



SAFE

Recycled water is tested frequently and always treated to a standard that is safe for its intended use.



RELIABLE

Because wastewater is renewable, water reuse is the only sustainable source of freshwater.



LOCALLY CONTROLLED

Texas communities that use recycled water are not beholden to nature or neighboring states for water.

WATER REUSE IN TEXAS

10 BILLION GALLONS

for Lake Arrowhead



In 2014, Wichita Falls upgraded an existing plant to provide drinking-quality recycled water directly to the water system as an emergency drought response. Today, the plant still augments drinking water by delivering purified water to a local reservoir.



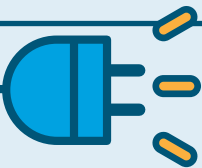
10 YEARS of Direct Potable Reuse

In May 2013, Colorado River Municipal Water District opened the advanced water treatment plant in Big Spring, Texas, the first plant of its kind in the United States. The plant treats up to 2 million gallons per day to drinking water standards.

10 MILLION GALLONS per Day



El Paso's Advanced Water Purification Facility will transform treated wastewater into fresh drinking water and deliver it directly to customers. The facility will be the first direct to distribution potable reuse facility in the United States.



Powering THOUSANDS OF HOMES

The City of McAllen supplies 3.5 million gallons per day of recycled water to the Hidalgo Energy Center for uses including cooling towers. There, the recycled water helps produce 477 megawatts of energy that serve the surrounding community.



Habitat for 260 BIRD SPECIES

The North Texas Municipal Water District operates the largest human-made wetland which polishes recycled water for indirect potable reuse and provides habitat for numerous species of bird, plant, and aquatic life.



Innovative WETLANDS REUSE

Since 1992, Tarrant County has benefited from a resilient and sustainable water supply. Highly treated recycled water is discharged into Trinity River and nearby wetlands which provide recreational benefits, and then finds its way to a reservoir and water treatment plant serving the community.



OFFSETTING 75% of Demand

In 2022, Austin Water opened a cutting-edge onsite reuse system in its new Permitting and Development Center. Reusing the building's blackwater, rainwater, and air-conditioning condensate is expected to save the city almost 1.5 million gallons of drinking water annually.

130 MILES of Pipe



San Antonio boasts the largest recycled water delivery system in the nation. Pipes deliver 12 million gallons per day of high-quality recycled water to the city's golf courses, parks, commercial customers, and industry. They also serve San Antonio's famous River Walk and provide downstream flow to the Gulf Coast.



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.