



PROFILES IN REUSE: Colorado



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?

Colorado is a semiarid state that faces increasing cycles of drought and water scarcity. Furthermore, most of its population lives in the eastern, more arid part of the state, while most of its water supply lies farther to the west. Investment in water reuse can contribute to a locally sourced, sustainable, and stable water future—allowing families to flourish and businesses to grow. Colorado communities and businesses are investing in water reuse to ensure that our residents have safe drinking water supplies, our environment is protected, and agricultural, mining, and industrial operations can continue to bolster our economy.

WATER REUSE IN COLORADO

For over half a century, water reuse has helped meet the water needs of Colorado communities. In the 1960s, Aurora and Colorado Springs each began irrigating green spaces with non-potable recycled water. In the 1980s, Denver Water helped advance the science on water reuse by operating the nation's first municipal-scale direct potable reuse pilot system. An increasing number of Colorado communities are turning toward reuse to support long-term resilience.

COLORADO'S WATER SUPPLY OF THE FUTURE

With guidance and support from WateReuse Colorado and communities across the state, the Colorado Water Quality Control Commission amended its drinking water regulations to include direct potable reuse policies in November 2022. This amendment allows Colorado communities to bolster drinking water supplies with purified recycled water. Many water providers are considering developing next-generation water reuse systems under these regulations.

RECYCLED WATER IS:



COST EFFECTIVE

Reusing water can be more cost-effective than alternative supplies, such as new reservoirs or transbasin diversions.



ENVIRONMENTALLY SOUND

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



RELIABLE

Recycled water is renewable, providing a sustainable and constant source of freshwater.



COLLABORATIVE

Reuse increases the water efficiency of our communities, thereby fostering a collaborative approach to water management within Colorado and across state lines.



SAFE

Water is purified to meet stringent state and federal water quality standards designed to protect the environment and public health.

WATER REUSE IN COLORADO

FROM DESERT BASIN TO HIGH PLAINS

COOLING SPECIAL COLLECTIONS USING 60% LESS ENERGY

The Denver Museum of Nature and Science uses a modified geothermal cooling system. Instead of deep wells, the museum uses municipal recycled water as a heat sink. The innovative system keeps visitors and precious natural collections at just the right temperature.



IRRIGATING 2,500 ACRES

The City of Broomfield meets **20% of its water demand** by irrigating public spaces with a non-potable water system supplied by the Broomfield Water Recovery Facility.

REUSING 100%



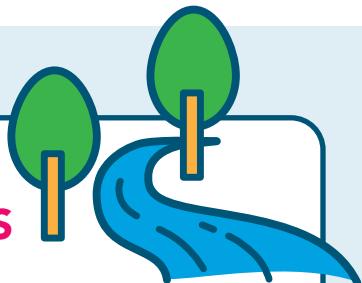
Meridian Metropolitan District operates a closed system that doesn't discharge effluent into a water body. All of the treated effluent generated within the District's service area is reclaimed for irrigation of golf courses, commercial properties, and parks.



FULFILLING 1/3 OF DEMAND

By 2028, Castle Rock Water's Plum Creek Water Purification Facility will reclaim enough wastewater to serve approximately **33% of the community's water needs**.

PROVIDING 10M GALLONS PER DAY



BUILDING CONFIDENCE IN PUBLIC HEALTH



Colorado Springs Utilities, Carollo Engineers, and Colorado School of Mines built the PureWater Colorado Direct Potable Reuse Mobile Demonstration Unit, the world's first such unit to use carbon-based advanced treatment. In its first year alone, nearly 1,000 attendees visited and **85% of attendees tasted the purified water**. The unit continues to operate at facilities around the state.



CLOSING THE LOOP

Denver Water recycles wastewater from sinks and toilets at its headquarters with its onsite ReUse For Us (RUFUS) system. The cleaned water from RUFUS refills those same toilets and urinals, while also irrigating native landscaping.



About the WateReuse Association

The WateReuse Association is the nation's only trade association solely dedicated to advancing laws, policy, funding, and public acceptance of recycled water. WateReuse represents a coalition of utilities that recycle water, businesses that support the development of recycled water projects, and consumers of recycled water. WateReuse engages on national and international water reuse issues, as well as local issues through state and regional sections. To learn more, visit www.watereuse.org.