WATER IS GOOD FOR TEXAS

WATER RECLAMATION

WATER IS A FINITE RESOURCE AND INCONSISTENT IN ITS AVAILABILITY. In addition to relying on traditional sources, Texas is turning to water reuse to maximize its water supply. In water reuse (also known as water recycling or water reclamation), wastewater is treated to remove contaminants, solids and certain impurities and then used for irrigation, drinking water, groundwater replenishment, industrial processes, cooling and environmental restoration. Although still a relatively small part of Texas' water sources, reuse is growing as conservation strategies grow – helping to bolster the state's water supply.

PURPLE IS THE STANDARD COLOR OF PIPES ACROSS THE U.S. THAT CARRY RECYCLED WATER. THE PURPLE PIPE DISTRIBUTES TREATED EFFLUENT, PRIMARILY FOR IRRIGATION, BUT THE WATER IS CLEAN ENOUGH FOR NON-POTABLE USES LIKE FLUSHING TOILETS OR MANUFACTURING.

WATER RECLAMATION METHODS

DIRECT REUSE	RECLAIMED WATER THAT IS PIPED DIRECTLY FROM A WASTEWATER TREATMENT FACILITY TO A DISTRIBUTION SYSTEM FOR BENEFICIAL USE. EXAMPLES INCLUDE PIPING TREATED WASTEWATER TO AN INDUSTRIAL CENTER FOR MANUFACTURING, GOLF COURSE FOR IRRIGATION OR POWER PLANT FOR COOLING.
INDIRECT REUSE	RECLAIMED WATER IS DISCHARGED TO AN ENVIRONMENTAL BUFFER WATERCOURSE SUCH AS A LAKE, RIVER OR AQUIFER TO BE USED AGAIN. INDIRECT REUSE PROJECTS THAT INVOLVE A WATERCOURSE REQUIRE A PERMIT THAT ALLOWS THE PERMIT HOLDER TO CONVEY AND SUBSEQUENTLY DIVERT WATER.
DIRECT POTABLE	AFTER TREATMENT, RECLAIMED WATER IS PIPED DIRECTLY INTO THE DISTRIBUTION SYSTEM OR BLENDED WITH THE RAW WATER SUPPLY BEFORE THE WATER TREATMENT PLANT.
INDIRECT POTABLE	TREATED RECLAIMED WATER IS USED TO AUGMENT DRINKING WATER SUPPLIES BY DISCHARGING IT TO A WATER BODY, SUCH AS SURFACE WATER, AND SUBSEQUENTLY TREATING IT FOR POTABLE CONSUMPTION.
RAINWATER RECOVERY	RAINWATER IS CAPTURED AND STORED FOR LANDSCAPE IRRIGATION, INDOOR USE AND STORMWATER ABATEMENT.

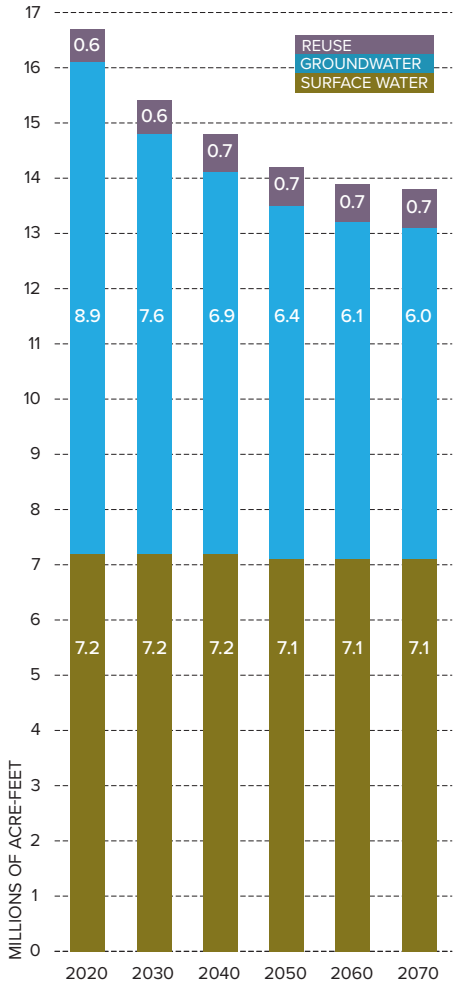
REUSE SOURCES

In 2020, reuse sources contributed 620,000 acre-feet of water to existing Texas supplies, about 3.7 percent – primarily for municipal, irrigation and manufacturing use. The water reuse supply is expected to rise to 714,000 acre-feet by 2070, comprising 5.1 percent of the state's water supply.

RAINWATER RECOVERY

Estimates indicate that a structure with a 2,000-square-foot roof in a city like Austin, with an average rainfall of 32 inches per year, can yield up to 34,000 gallons of collected rainwater. In a city like El Paso, with an average rainfall of 8.5 inches per year, about 9,000 gallons might be collected.

TEXAS ANNUAL PROJECTED WATER SUPPLY (MILLION ACRE-FEET), 2020-2070



Sources: Texas Water Development Board, Texas Comptroller of Public Accounts, Texas Co-op Power

Glenn Hegar Texas Comptroller of Public Accounts

THIS IS ONE IN A SERIES OF REPORTS THE COMPTROLLER HAS PREPARED ON WATER IN TEXAS

TO SEE MORE INFORMATION ON WATER ISSUES AND THE TEXAS ECONOMY: https://comptroller.texas.gov/economy/economic-data/water/

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