RECLAIMED WATER

RECLAIMED WATER FACTS

In Australia, the city of Perth will receive up to 20% of its drinking water from reclaimed sources in coming decades, with a reported 76% public support.

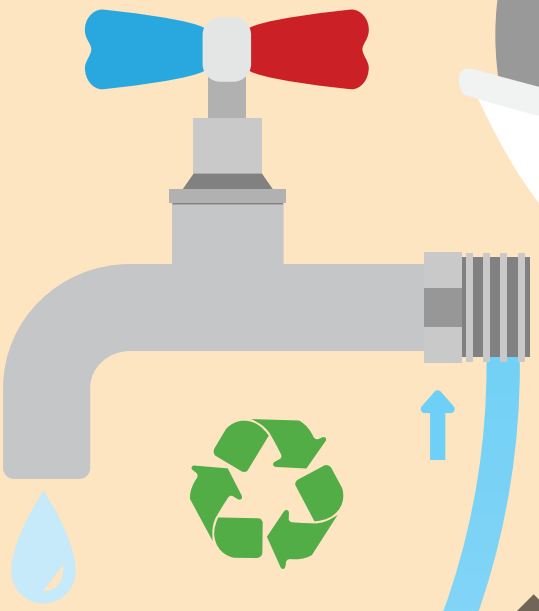
The largest population center to adopt the technology is Singapore, home to five million people. Officials say about 15 percent of its water originates from treated effluent, marketed as NEWater.

The San Diego City Council recently voted unanimously to advance a $2.5-billion plan to recycle wastewater.

The Orange County Water District, which serves 2.4 million people in California, plans to boost production of recycled water next year from 70 million gallons to 100 million gallons a day.

The Santa Clara Valley Water District, which serves 1.8 million people in the San Francisco Bay area, has decided to pursue construction of facilities to turn wastewater into drinking water for Sunnyvale and western Santa Clara County.

The city of Wichita Falls, Texas has built a 13-mile pipeline that connects its wastewater plant directly to the plant where water is purified for drinking.



WASTEWATER from toilets sinks, tubs, and washing machines passes through bar screens to remove larger debris

The water then enters primary clarifiers where solids settle to the bottom of the tanks

Next, the water enters secondary clarifiers where microorganisms eat any remaining organic materials

The water is then disinfected to remove any remaining bacteria

DRINKING WATER

This highly treated water is now pure, clean, and suitable for distribution

Finally, ultraviolet rays are used to fully disinfect the water by scrambling the DNA of anything that might still be living in it

The treated water now passes through filters that get rid of the tiniest of contaminants, like viruses or pharmaceuticals, by reverse osmosis

HOUSE WATER

95% of the water entering U.S. homes goes down the drain

37% of U.S fresh water is used for irrigation

42% of U.S fresh water withdrawals are used for thermoelectric power

35% less $

The cost to recycle wastewater through treatment costs about 35% less than desalination of ocean water

WATER AGRICULTURE

At this point, the water is ready to be discharged to lakes, streams, and rivers, or to be used for irrigation. But to make it suitable for drinking requires a few more steps.