



Fiscal Year 2021-22 Water Recycling

BACKGROUND

The Sanitation Districts' recycled water program became operational in 1962. Since then, the Sanitation Districts and their water agency partners have recycled 1.2 trillion gallons of water. Recycled water is produced by ten water reclamation plants. Two are in the Antelope Valley, two are in Santa Clarita, and the remaining six are within the Los Angeles Basin. Nine of these plants produce tertiary treated water that regularly meets drinking water standards. The Sanitation Districts have an 11th treatment plant. The water there is too salty to reuse without advanced treatment. A project to recycle that last untapped source is in the planning phase. (See <https://www.mwdh2o.com/purewater> for more info.)

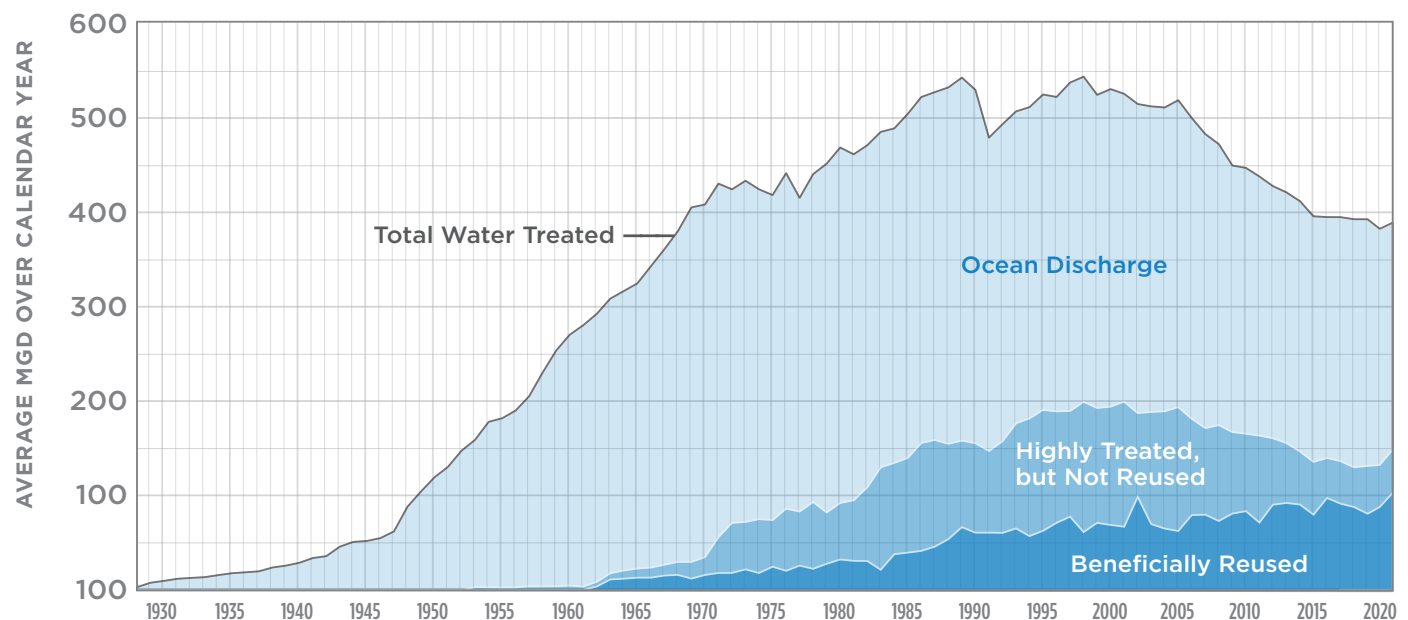
RECYCLED WATER PRODUCTION AND REUSE

Total Water Treated: During the fiscal year, **389 million gallons per day (MGD)** or 435,000 acre-feet per year (AFY) of wastewater were treated at our 11 treatment plants, which is a 0.9% increase from last year.

Highly Treated Water Produced: Of the total water treated, **149 MGD** (167,000 AFY) received a tertiary level of treatment, which is a 9% increase over last year (due to various construction and retrofit projects completed at the water reclamation plants). This highly treated water is essentially drinking water quality and suitable for a wide range of reuse applications.

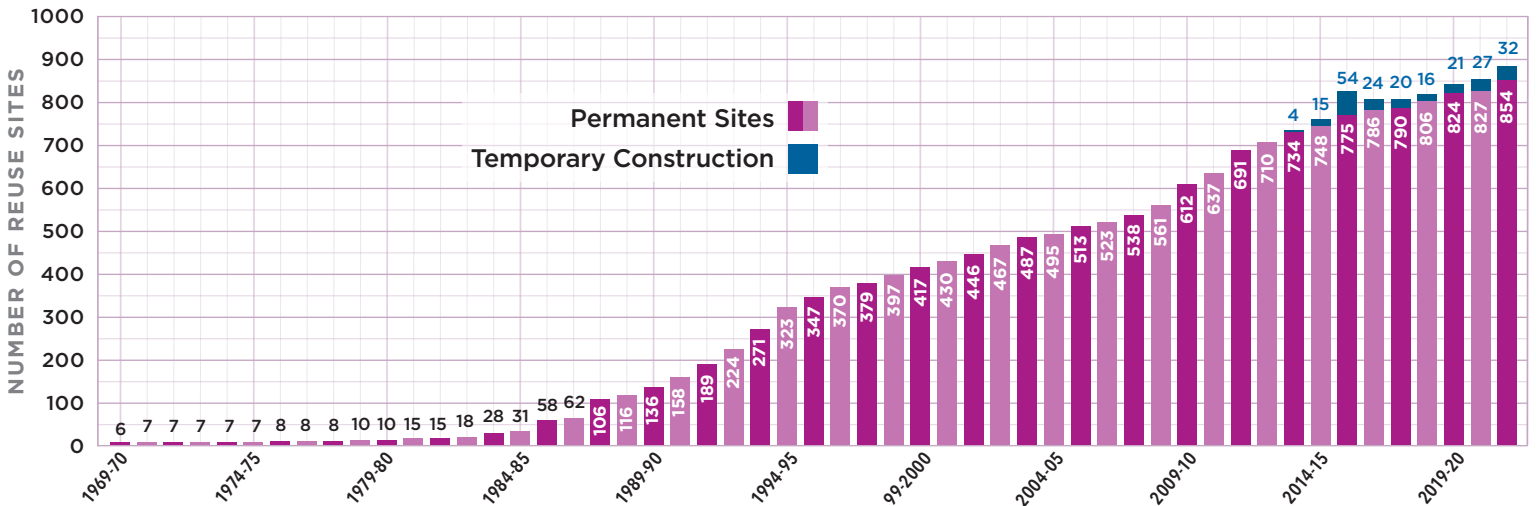
Beneficially Reused Water: Of the highly treated water produced, **103 MGD** (115,000 AFY) was beneficially reused, which is a 11% increase over last year (due to warmer, drier weather and the increased availability of recycled water). This reuse occurred at 854 permanent reuse sites by the end of the fiscal year and equates to 69% of the highly treated water being beneficially reused. The total amount of beneficially reused water since the program's inception in 1962 is **1.2 trillion gallons** (3,700,000 acre-feet).

WHAT HAS HAPPENED TO TREATED WATER THROUGH THE YEARS



1. Treated water that is discharged directly to the ocean. To be beneficially reused, this salty water would require advanced treatment, which has been cost prohibitive until recently. A project to add advanced treatment is in the planning phase.
2. Highly treated water that is available for reuse, but is not beneficially reused. Reasons include low water demand in winter, and insufficient water distribution infrastructure to convey the water to potential recycled water users. This water is discharged to rivers and most eventually flows to the ocean.
3. Highly treated water that is beneficially reused. See other side for types of reuse.

GROWTH OF BENEFICIAL REUSE SITES SUPPLIED BY THE SANITATION DISTRICTS



TYPES OF BENEFICIAL REUSE

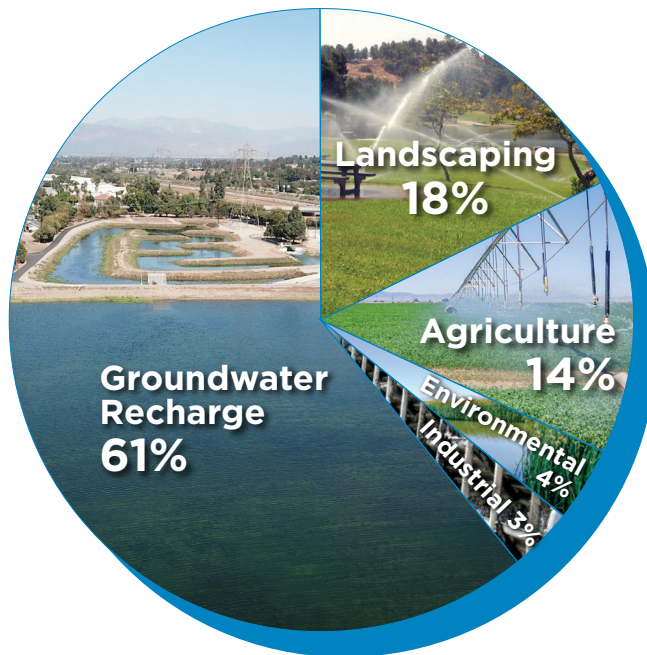
Groundwater Recharge (3 sites)
63 MGD (70,000 AFY)

Landscape Irrigation (818 sites)
18 MGD (21,000 AFY)

Agriculture (7 sites)
15 MGD (16,500 AFY)

Environmental (1 site)
4 MGD (4,300 AFY)

Industrial (60 sites)
3 MGD (3,800 AFY)



BENEFITS OF WATER RECYCLING FOR FISCAL YEAR 2021-2022

- Water** 115,000 acre-feet supplied (enough to supply 1,000,000 people)
- Energy¹** 350,000,000 kW-h saved (39 megawatts) A power plant would burn over 187,000 barrels of oil to generate this amount of energy. If sold by utilities, this amount of energy would generate \$52,000,000 of income.
- Carbon Dioxide²** 260,000 ton reduction, equivalent to the emissions of 55,000 cars driving for a year.
- Other Air Pollutants³** 260 ton reduction

- The use of locally produced recycled water reduces the need to pump imported water into the Los Angeles Basin at a net energy savings of approximately 3,000 kW-h per acre-foot.
- Energy savings from reduced imported water pumping result in less production of carbon dioxide, a greenhouse gas.
- Energy savings from reduced imported water pumping result in less production of traditional air pollutants (nitrogen oxide, carbon monoxide, sulfur oxides, particulates and reactive organic gases).