

INLAND EMPIRE UTILITIES AGENCY

Regional Water Recycling



Recycled Water

is a safe, reliable and cost-effective approach to managing Southern California's limited water resources. Inland Empire Utilities Agency, its local cities, and water agencies invest in recycled water to reduce reliance on limited and expensive imported water.



Recycled water helps us stretch our existing water supplies

The Inland Empire Utilities Agency (IEUA) is a municipal water district that was formed in 1950, with the mission to supply supplemental water to the Chino Basin. Since then, IEUA has expanded its areas of responsibility from a supplemental water supplier to a regional wastewater treatment agency with domestic and industrial disposal systems and energy recovery/production facilities. In addition, IEUA has become a recycled water supplier, compost provider and continues as a leader in water quality management and protection. IEUA provides these services to over 830,000 people within a 242-square mile area.

IEUA's member agencies include Chino, Chino Hills, Cucamonga Valley Water District, Fontana, Fontana Water Company, Montclair, Monte Vista Water District, Ontario, and Upland.

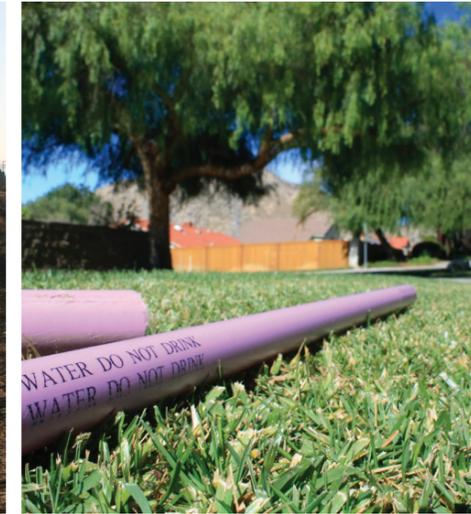


What is Water Recycling?

Water recycling is the process of utilizing existing and proven technologies to treat domestic wastewater for approved non-potable (non-drinking) uses. Recycled water is a safe alternative water supply source. Using recycled water is a responsible way to manage the Inland Empire's region of water resources. Recycled water reduces dependence on our limited water supplies helping to drought proof the rapidly growing Inland Empire.

The first water recycling plant in the United States was built in the Grand Canyon in 1926 for the use of landscape irrigation. California's first water recycling project began in 1929 when the city of Pomona started using treated wastewater for landscape irrigation. California water recycling projects are carefully regulated by the California Department of Public Health and the State Water Resources Control Board.

Recycled water from IEUA's water treatment plant is colorless and odorless.



Recycled Water Use

SOME OF THE APPROPRIATE USES FOR RECYCLED WATER INCLUDE:

- Irrigation
- Landscaping
- Golf Courses
- Farms
- Industrial Cooling
- Parks
- Cemeteries
- Construction
- Recreational Lakes
- Groundwater Recharge
- Industrial Processing
- Median Strips

Water Recycling Treatment Process:

Recycled water goes through a series of purification steps that clean the water to make it safe for virtually all non-potable uses, including landscape irrigation, agricultural farming and industrial applications.

1. Preliminary Treatment:

Wastewater flows through bar screens and grit chambers, where the more dense materials such as sand, dirt, stones, rags, etc. are removed.



2. Primary Treatment:

As wastewater goes through sedimentation tanks, approximately 65% of the suspended solids are removed.



3. Secondary Treatment:

This is the biological process in which the organic solids are consumed by microorganisms. This process removes an excess of 90% of the organic material in the wastewater.



4. Tertiary Treatment:

In the final stage, water is passed through filtration to remove suspended organic solids, bacteria and viruses. After filtration, disinfection is provided through the use of chemicals to produce recycled water that meets stringent standards, providing a consistently reliable, high quality of water.



Recycled Water Safety:

After the extensive treatment process, recycled water is safe enough to irrigate parks, golf courses, cemeteries, freeway embankments and median strips, residential landscaping and other outdoor recreational areas. Recycled water, however, is not intended for human consumption. Bacteria, virus and protozoan parasites are microorganisms that may be found in water contaminated with human waste. The treatment processes used in the production of recycled water distributed by the Agency are effective in destroying up to 99.999 percent of these microorganisms currently found in domestic wastewater. Because it may take only one microorganism to cause infection, recycled water must be used with care. Regulations for the production and use of recycled water protect public health.

Benefits of Recycled Water Irrigation:

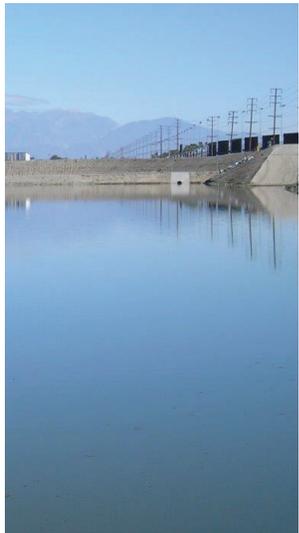
As demand for potable water increases, and the supply decreases, the future availability of potable water for irrigation is questionable. Pricing of potable supplies continues to rise, making recycled water more attractive. Nitrogen, potassium, calcium, magnesium, sulfur, boron, and other nutrients may be present in recycled water. All of these may provide some level of fertilization during the irrigation process. Irrigating with recycled water is making use of a valuable resource that would otherwise be disposed of.

Water recycling has numerous benefits. Besides augmenting our limited drinking water supplies, it is drought-proof and a good use of our natural resources. Using recycled water allows our precious potable water supplies to be saved and used for domestic uses such as drinking and bathing. Water recycling is the same concept as recycling paper and aluminum cans – it is recycling instead of wasting a precious natural resource.

Regulation Safeguards:

Regulations make the use of recycled water safe. Stringent regulations by the California Department of Public Health, State Water Resources Control Board, and the U.S. Environmental Protection Agency ensure consistent, reliable water quality while protecting the public health. California Code of Regulations Title 22 and Title 17 are two health department regulations that regulate the treatment and distribution of recycled water supplies. Title 22 establishes the requirements for recycled water treatment, quality and allowable use. Title 17 establishes the requirements for separation and protection of potable water supplies.





Participating Agencies

U.S. BUREAU OF RECLAMATION

The Bureau of Reclamation participates in authorized recycling projects at funding levels as much as 25 percent of total project cost.

www.usbr.gov

CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

CDPH establishes public health criteria for recycled water treatment and use.

www.cdph.ca.gov

STATE WATER RESOURCES CONTROL BOARD

The State Board regulates and permits, along with the nine regional water quality control boards, the state's surface water and groundwater quality and allocated water rights for surface waters. The State Board administers the State Revolving Fund Loan Program and Water Recycling Loan Program to provide low-interest loans for wastewater recycling facilities and the Water Recycling Facilities Planning Grant Program.

www.swrcb.ca.gov

U.S. ENVIRONMENTAL PROTECTION AGENCY

EPA enforces laws that protect natural resources, including water, land and air. It sets standards for use of biosolids to protect human health and the environment.

www.epa.gov

WATEREUSE ASSOCIATION

A national organization dedicated to increasing the beneficial use of recycled water. WaterReuse has a diverse membership of 250 public agencies, water suppliers, local, state and federal government agencies, consultants, industries and individuals who either work in the field of water recycling or support its use.

www.watereuse.org



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