

Temecula Valley Regional Water Reclamation Facility

WHAT GOES AROUND...

Water treatment and sewer treatment are two sides of the same coin.

EMWD sees sewage treatment as a way to convert wastewater, which costs money to treat, into a resource that extends water supplies in many ways. Every gallon of water that is used at least one more time means one more gallon that can be left in the ground, or one less gallon that would need to be imported through aqueducts from hundreds of miles away.

The advanced technology used to process wastewater is based on what occurs in nature - after solids have settled, and organisms consume remaining nutrients. Simply put, a treatment plant speeds up the natural water recycling process.

EMWD uses the highest level of treatment, an advanced process called tertiary treatment, which removes bacteria and viruses and virtually all suspended solids. Water at this level can be used for most any purpose short of direct human consumption.

IN THE BEGINNING...

As the Vail Ranch and what was then known as Rancho California began to develop, plans began in 1968 for EMWD to set up its fourth treatment facility to serve Temecula, Murrieta Hot Springs, and portions of Murrieta. Temporary treatment began in 1969, with a permanent facility open for business and a capacity of 1 million gallons per day (mgd) in 1973.

Unlike other facilities operated by EMWD, the Temecula Valley plant operates in the Santa Margarita River watershed and comes under the regulation of the San Diego Regional Water Quality Control Board.

TEMECULA VALLEY OPERATIONS

- Typical daily flows:
14 million gallons per day
- Current capacity:
23 million gallons per day
- Ultimate capacity:
28 million gallons per day



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TODAY...

TVRWRF is rated at 23 mgd, following its latest expansion completed in 2018 at \$49 million. The 2018 expansion introduced Membrane Bioreactor water treatment, which produces high quality effluent water. This, type of system is used in both potable water treatment and waste water treatment.

The plant incorporates the specific biological nutrient removal process known as A2O. The acronym refers to Anaerobic, Anoxic, and Oxidic stages in the secondary process, and is designed to remove nitrates and phosphates.

The 95-acre facility is the smallest of EMWD's five reclamation plants, however its capacity is the second largest. Located in the central commercial area of Temecula, this plant maintains only 50 mg of temporary on-site storage. When additional storage is required, the Temecula plant pumps reclaimed water north 10 miles to the 485 mg storage ponds in Winchester, near Simpson and Leon. As an alternative, another pipeline can deliver recycled water to the Lake Elsinore area. The expansion project included new primary, secondary, tertiary, solids handling, and effluent pumping facilities/storage to provide 5 mgd additional total capacity.

This facility has a 1 megawatt (1,000 kilowatts) solar array, which helps power the facility.

IT'S A 24/7 OPERATION...

A specially trained and state-certified staff of about 20 employees attend the plant 18 hours every day. During off-hours, alarms connect with EMWD's Central Control in Perris. If necessary, individuals can be called out for emergencies.