EMWD Insights

EASTERN MUNICIPAL WATER DISTRICT

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 a nuisance and an expense into a resource that extends water supplies in many ways.

By the 1920s, wastewater processing consisted of ***primary treatment***--a mechanical process involving settling, skimming off floating materials and removing sludge. By the end of World War II, it became apparent this wasn't enough.

What came next incorporated biological processes into a more advanced ***secondary treatment***. This advance in technology is based on what occurs in nature--after solids have dropped out, organisms consume remaining nutrients. Simply put, a treatment plant speeds up the natural water cycle process.

During the late 1980s, even more advanced treatment--known as ***tertiary***--became feasible and was, in some instances, required. This highest treatment level 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.

Every gallon of water that is used at least one more time means one more gallon can be left in the ground, or one less gallon would need to be imported through aqueducts from hundreds of miles away.

Temecula Valley operation in millions of gallons/day (mgd)	
Typical daily flows:	**6.0**
Capacity:	8.0
Ultimate expansion:	54

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. It serves Temecula, Murrieta Hot Springs and portions of Murrieta.

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.

Temporary treatment began in 1969, with a permanent facility open for business and with a capacity of 1 mgd in 1973.
Present tertiary facilities are rated at 10 mgd, although the plant's secondary facilities limit it to 8.0 mgd.

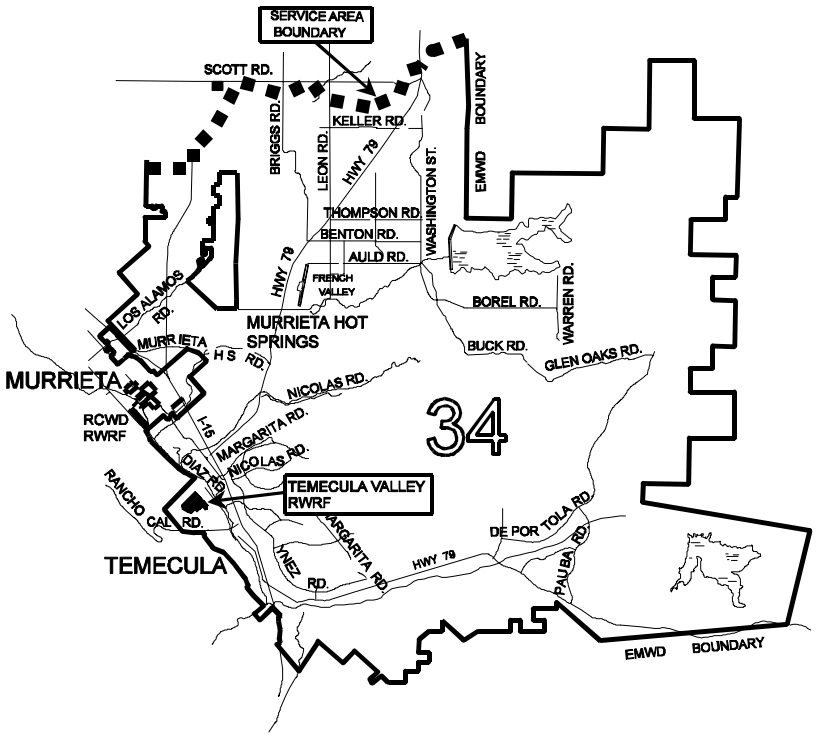
A $32 million expansion will increase the plant's overall capacity to 12 mgd. It is scheduled to be on-line by June 2003.

At this plant, the specific biological nutrient removal process is known as A^2O. The acronym refers to *Anaerobic, Anoxic, and Oxic* stages in the secondary process, specifically designed to remove nitrates and phosphates.

The 95-acre facility is the smallest of EMWD's five reclamation plants. Located in the central commercial area of Temecula this plant maintains only 25 mg of temporary on-site storage.

When additional storage is required, the Temecula plant pumps reclaimed water north 10 miles to the 450 mg storage ponds in Winchester, near Simpson and Leon.

This extension of pipelines enables additional agricultural customers, from turfgrass growers to potato farmers, to hold down expenses for water, compared with their own underground supplies or imported water.



Who's watching the store?

A specially trained and state-certified staff of 12 attend the plant 10 hours every day. During off-hours, alarms connect with EMWD's Central Control in Perris. If necessary, individuals can be called out for emergencies.

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