



Moreno Valley

Regional Water Reclamation Facility



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.

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

Moreno Valley operation in millions of gallons/day (mgd)	
Typical daily flows:	11.2*
Capacity:	16
Ultimate expansion:	41

* (plus 0.4 mgd, diverted to Perris)

In the beginning:

The 8,000 residents of unincorporated Sunnymead must have had second thoughts after turning down a plan to build a sewer system during the mid-1960s.

So, in March 1966, support was high for a \$4.8 million bond issue. During groundbreaking ceremonies for the new plant in July 1967, residents acted as if it were a community holiday.

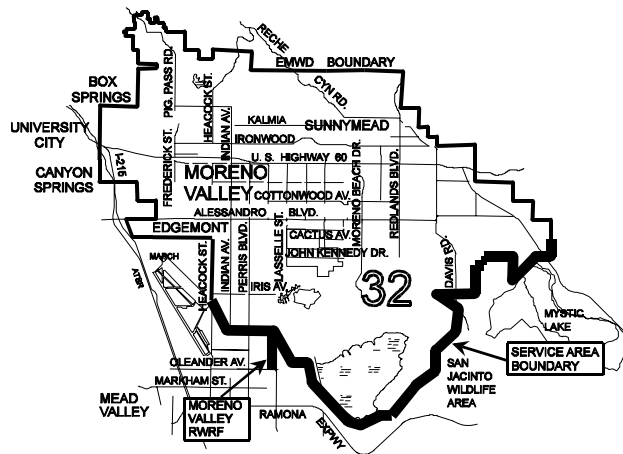
By 1968, the then-called Sunnymead Water Reclamation Facility was open for business at 1 million gallons a day (mgd).

Today, the renamed Moreno Valley Regional Water Reclamation Facility typically treats 11.5 mgd.

For most crops, local farmers use up to 10 mgd of secondary-treated water.

An even higher level of treatment—referred to as tertiary—removes virtually all suspended solids, bacteria and solids.

Since 1991, this additional recycled water is used for greenbelt and median strip irrigation at the Moreno Valley Ranch development.



BAR refers to Barnard, the name of the process developer; DEN, from denitrification; and PHO, phosphorous removal.

This advanced, five-step biological process removes nitrogen and phosphorus to levels set by regulatory

agencies.

This plant was the first of EMWD's top use the biological nutrient removal process known by the acronym, BARDENPHO.

Wet weather storage



Even though households continue to generate 200 to 250 gallons of wastewater every day, customers for recycled water are not always able to be so consistent.

During rainy weather, the plant can temporarily store 260 million gallons on site.

It also shares another 330 mg near Nuevo at a site referred to as Skiland, and 287 mg at Trumble Road, adjacent to EMWD's headquarters complex.

Who's watching the store?

Specially trained and state-certified individuals staff the plant 10 hours every day of the year. Alarms connected to EMWD's Central Control in Perris can alert personnel if emergencies occur at other times.

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