



# Monterey Peninsula

## Groundwater Replenishment Project

*Providing A Safe And Sustainable Water Supply*

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## MRWPCA'S RECYCLED WATER PROJECTS

### AGRICULTURE, URBAN REUSE, AND GROUNDWATER REPLENISHMENT

#### BACKGROUND

The Monterey Regional Water Pollution Control Agency (MRWPCA), like many other agencies in California, is studying ways to fully reuse its wastewater. Wastewater can be treated and used as a sustainable, local replacement water resource that helps conserve drinking water supplies. MRWPCA currently operates a water recycling treatment plant that generates an average of 20 million gallons per day. Recycled water is currently used for agriculture, and the Agency is pursuing other uses, as the water is too valuable a resource to waste.

Northern Monterey County needs additional safe, high-quality and dependable water supplies just to sustain its diverse population and economy. Ninety-five percent (95%) of the region's existing water supply comes from local groundwater. Currently, Monterey County's coastal aquifers are over drafted – meaning that more water is being taken out than can be replenished by nature. In 2006, the main aquifer in the Seaside area was adjudicated. This designation mandates that new sources of water must be developed by 2009 or water rationing will be instituted in 10 percent increments every three years. Because of the adjudication decree, the Monterey Peninsula needs to find additional new sources of water in the very near future.

Reuse of treated wastewater, called recycled water, is common in many California communities.

Recycled water is approved for use in the following ways:

- Landscape irrigation of golf courses, parks, private yards, school grounds, highway median strips and greenbelts
- Industrial processing such as for cooling towers, boiler feed water, concrete batching plants and carpet manufacturing
- Agricultural irrigation of food crops and other crops
- Groundwater replenishment of aquifers
- Recreational impoundments such as lakes and reservoirs

#### PROJECT DESCRIPTIONS

##### **Agricultural Reuse**

In the early 1970s, MRWPCA, in partnership with the Monterey County Water Resources Agency, embarked on an ambitious program to supply recycled water for agricultural crops. In northern Monterey County, the Salinas Valley aquifer that provides potable water was suffering from extensive seawater intrusion. The salinity of the water threatened to harm crops and the agricultural economy. In 1998, the Monterey County Water Recycling Projects were completed and began delivering high-quality irrigation water to 12,000 acres of farmland. The recycled water replaced the groundwater and is of such high quality that it is safe for irrigating food crops that are eaten raw. Due to the water's safety and the quality of crops produced, MRWPCA's agricultural program is world renowned, highly successful, and of great value to the agricultural economy in Northern Monterey County. To date, over **50 billion gallons** of water have been produced, averaging 12,000 AFY.

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## **Urban Reuse Project**

The Regional Urban Water Augmentation Project (RUWAP), in partnership with the Marina Coast Water District, is being developed for landscape irrigation – golf courses, parks, and athletic fields, new residential developments, and greenbelt areas. Some of the pipelines for RUWAP are installed and the remainders are “shovel ready.” Recycled water will be available for many landscape areas around Marina, Seaside, and Del Rey Oaks in the near future.

## **Groundwater Replenishment**

The Monterey Peninsula Groundwater Replenishment Project can supply an estimated 2,700 acre feet of water that will recharge the Seaside Groundwater Basin and blend with natural groundwater before being extracted. Tertiary treated recycled water will be further purified using advanced treatment processes producing water exceeding drinking water standards. This water would then be injected into the soil where it percolates or filters through the soil layers naturally, just like rainwater. This process “recharges” or helps replenish the aquifer while safeguarding the water quality from seawater intrusion. Advanced treatment processes include microfiltration, reverse osmosis, and oxidation with ultraviolet light and hydrogen peroxide. These processes have been commonly used in food manufacturing, including baby food and bottled water.

The California Department of Public Health, Monterey County Environmental Health, and the California Regional Water Quality Control Board strictly monitor and regulate agricultural irrigation, landscape irrigation, and groundwater replenishment. The regulations and monitoring requirements fully protect the public’s health and safety as well as the environment. In addition, a special independent advisory panel (IAP) of experts will independently review the Monterey Peninsula Groundwater Replenishment Project.

Groundwater replenishment is used in many places around the world. For example, Orange County, California has operated a groundwater replenishment project since 1971. In this case, highly treated recycled water is used to prevent seawater intrusion into its aquifer by recharging it. Currently, the Orange County Water District’s groundwater replenishment project provides about 72,000 acre feet of water per year.

## **SUMMARY**

MRWPCA’s Agricultural, Urban Reuse and Groundwater Replenishment projects are smart choices for Monterey County. These projects will help reduce seawater intrusion into our aquifers and conserve drinking water for residents and businesses. Compared to other new water projects, such as seawater desalination, using recycled water is smart because it is cost effective and energy efficient. This project will also help the Monterey Peninsula relieve a portion of the adjudication mandates. Recycling water provides reuse of a local, sustainable, and drought-resistant resource that is too valuable to be discharged into the ocean.

For more information contact:



**Monterey Regional Water Pollution Control Agency**

**Mailing Address: 5 Harris Court, Building D, Monterey, CA 93940 • Phone: (831) 372-3367 or (831) 422-1001**

**[www.mrwPCA.com](http://www.mrwPCA.com) • [www.mpwaterreplenishment.org](http://www.mpwaterreplenishment.org)**