



SUMMER 2022

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PERRIS II DESALTER

EMWD's Perris II Desalter was completed in the Summer of 2022 and is the third reverse osmosis groundwater desalination facility that EMWD operates. Located at EMWD's Desalination Complex in Menifee adjacent to the Perris I and Menifee I Desalters, the Perris II Desalter will increase capacity by an additional 5.4 million gallons per day — enough for more than 15,000 homes per year.



What is Desalination: EMWD uses groundwater desalination because the groundwater in the Perris and Menifee areas is salty. By removing the salts, we are making beneficial use of an otherwise unusable groundwater supply.

The desalination process uses pressure to push the water through a series of filters with microscopic pores. The water molecules are able to pass through but the salts and other impurities are too large to pass through the filter and are removed.

Where the Water Originates:

EMWD operates 15 groundwater desalter wells, primarily located throughout the Menifee, Perris, Lakeview and Nuevo portions of its service area. These wells are more than 500 feet



deep and extract the salty groundwater, which is then sent to the Desalination Complex in Menifee.







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A True Partnership: The Perris II Desalter was funded in part by approximately \$22.5 million in grant funding from the State Water Resources Control Board through Proposition 1, the 2014 voter-approved water bond.

Additional funding and in-kind support was provided by the United States Army Corps of Engineers, which provided \$10.8 million toward the construction of wells to support the new facility; the California Department of Water Resources; United States Bureau of Reclamation; Santa Ana Watershed Project Authority; and The Metropolitan Water District of Southern California.

Where Does The Salt Go?: At the end of the reverse osmosis process, the salty brine is discharged into the Inland Empire Brine Line. It is sent through the 70-mile pipeline to a treatment plant on the coast in Orange County, where it is ultimately discharged into the ocean.

Improving Groundwater Quality: EMWD's Desalination Program will ultimately remove 65,000 tons of salt each year from the groundwater basin. Not only does this improve the water quality in the basin over time, but it also allows EMWD to use recycled water in the region that would otherwise not be permitted without the offset of salts removed because of the desalination process.

Project Benefits: EMWD's Desalination Program is one of several strategies EMWD is pursuing to become less reliant on imported water and move toward the goal of drought-proofing the region and providing reliability and flexibility to the area's water supplies.

QUICK INFO

Perris II Desalter Capacity: 5.4 million gallons per day.

Overall Desalination Capacity: 13 million gallons per day

Project Cost: \$72 million Including \$22.5 million in external funding

Project Completion: Summer 2022











