

## Water Supply Desalination Infrastructure

# Perris II Desalter



Eastern Municipal Water District (EMWD) is committed to investing in local water supply resources and reducing its reliance on imported water. Among those investments is EMWD's Desalination Program. Partnerships in the program include the Army Corps of Engineers, the State Water Resources Control Board, the Metropolitan Water District of Southern California, and the U.S. Bureau of Reclamation.

EMWD's Desalination Program produces potable (drinking) water from otherwise unusable brackish (salty) groundwater in Perris and Menifee. Currently, two reverse osmosis desalters—Perris I and Menifee—are located in the City of Menifee and produce approximately 8 million gallons per day (mgd) of drinking water.

A third desalter unit—Perris II—is currently in the design process and will be located adjacent to the existing desalters. The Perris II unit is expected to produce an additional 5.4 mgd of drinking water from the otherwise unusable brackish groundwater in the Perris South Groundwater Subbasin.

The Perris II Desalter Project would include additional groundwater extraction wells, associated pipeline infrastructure and a reverse osmosis desalination facility. Capital costs for the project—including treatment facility, up to seven new supply wells, brine disposal capacity, pipelines and appurtenances—are estimated at approximately \$50 million.

In addition to reducing demand for imported water from The Metropolitan Water District of Southern California through the Sacramento-San Joaquin Delta and the Colorado River, EMWD's Desalination Program assists with salinity management. Salt is exported from EMWD's service area through the 70 mile Inland Empire Brine Line to a treatment plant on the coast in Orange County. This allows for the expansion of water recycling and the protection of high-quality groundwater in EMWD's service area.

EMWD's Desalination Program will ultimately remove up to 50,000 tons of salt from the groundwater basin each year and will generate enough water to supply up to 30,000 families.

EMWD's Desalination Program is one of several strategies EMWD is pursuing under the Groundwater Reliability Plus initiative, securing our water future by becoming less reliant on imported water and providing reliability and flexibility to the area's water supply.

### Desalination Program Goals

- Provide **reliable local water supply for up to 30,000 households** from an otherwise unusable brackish water source
- **Export up to 50,000 tons of salt per year** accumulated from imported water sources in the watershed
- **Protect adjacent high-quality, lower salinity groundwater sources** through strategically located pumping



# EASTERN MUNICIPAL WATER DISTRICT DESALINATION PROGRAM

## Existing & Proposed Facilities

