

ORANGE COUNTY WATER



APPROXIMATELY 50 PERCENT OF THE WATER USED IN ORANGE COUNTY COMES FROM IMPORTED SUPPLIES; THE REST COMES FROM A VAST UNDERGROUND AQUIFER, RECYCLED WASTEWATER, AND SEVERAL SMALL GROUNDWATER BASINS.

IMPORTED WATER

Municipal Water District of Orange County (MWD OC) purchases high-quality imported water, from the Colorado River and Sacramento-San Joaquin Bay Delta, through **The Metropolitan Water District of Southern California (MWD)**.

STATE WATER PROJECT (SWP)

700+ MILES LONG

The State Water Project (SWP) is a water storage and delivery system that facilitates the transfer of water from the lakes and rivers of Northern California to residential communities, agricultural districts, and businesses in the San Francisco Bay area, Central Valley, and Southern California.

The SWP is the largest state built water delivery and power generation system in the nation, consisting of more than 30 lakes and reservoirs, over 20 water pumping plants, 5 hydroelectric power plants, several dams, and over 700 hundred miles of canals and pipelines.



COLORADO RIVER AQUEDUCT (CRA)

242 MILES LONG

The Colorado River is an essential water supply for Orange County.

The CRA transports water 242 miles west from Lake Havasu on the California/Arizona border to Lake Mathews in Riverside County.

Owned and operated by MWD, the CRA began delivering water to southern California in 1941 and was the largest public works project in southern California during the Great Depression.

Five pumping plants push water through the aqueduct and up over 1,617 feet of mountainous terrain.



DIEMER WATER TREATMENT PLANT



The Robert B. Diemer Treatment Plant (Diemer) is located in Yorba Linda. The plant's hilltop location is well suited for gravity-flow distribution of water to homes and businesses throughout Los Angeles and Orange counties. Most water brought to Diemer for treatment comes from the Colorado River via the 242-mile long Colorado River Aqueduct. To a lesser degree, the plant also receives water from Northern California through the State Water Project.

Diemer delivers up to **520 MILLION GALLONS** of clean drinking water a day to Orange and Los Angeles counties.

6 DIAMOND VALLEY LAKE (DVL) MONTHS OF EMERGENCY SUPPLY

Located in Riverside County, near Hemet, DVL is Southern California's largest drinking water reservoir. DVL nearly doubles Southern California's surface storage and provides six months of emergency water supplies for the region, protecting it against water shortages caused by drought and earthquakes.

DVL measures 4.5 miles long and over 2 miles wide, with a maximum depth of 285 feet. The lake holds up to 264 billion gallons of water and is home to one of 16 hydroelectric plants along the MWD distribution system.



LOCAL WATER SUPPLIES



**TO MEET THE WATER NEEDS OF AN
EVER GROWING POPULATION,
WATER OFFICIALS MUST DEVELOP
LOCAL WATER SUPPLIES AND
EXPAND OUR WATER PORTFOLIO**

ORANGE COUNTY GROUNDWATER

2.5 MILLION RESIDENTS

The northern portion of the county lies above a large underground aquifer known as the Orange County Basin. This water source provides much of the water needed for the Orange County cities north of Newport Beach and Irvine.



Water is drawn from the Orange County Basin faster than can be replenished naturally, necessitating engineered recharge. Orange County Water District, a MWDOC member agency, purchases imported water to recharge the groundwater basin.

To the south lies the San Juan Basin, which is small and salty compared to the Orange County Basin. This water must be desalinated prior to its use as drinking water.



SEAWATER DESALINATION



Seawater desalination in Orange County has been limited by technology, expense, and energy requirements. A proposed local project aims to make waves as a future water supply source.

5 MILLION GALLONS
PER DAY

MWDOC and its partners began studying the feasibility of a Dana Point desalination plant in 2002. This project, known as the Doheny Ocean Desalination Project, would produce 5 million gallons of desalted water each day for south Orange County.

The Doheny Ocean Desalination Project uses slant wells that are designed to protect marine life and will use an environmentally friendly discharge method. The goal of this project would be to provide a reliable drinking water solution that is drought-proof and resilient. The plant is scheduled to be operational by 2027.



WATER RECLAMATION

Wastewater has become an important source of water for California. Wastewater is processed at a water reclamation facility to remove solids and impurities, increasing the quality of water. The water, now clean, can be used for a variety of applications.



Reclaimed water is used for irrigation, toilet flushing, industrial purposes, and groundwater replenishment.



OC RELIABILITY STUDY

The Orange County Reliability Study is a comprehensive study of Orange County's water supply reliability through the year 2040.

Key findings include the need for investments in local & regional water supply, "banking" water in wet years for use during dry years, and demand reductions through continued water use efficiency programs.

Without the Delta Conveyance Project – an extensive plan designed to protect California's water supply from the north – or any new local investments, Orange County will face water shortages in eight of 10 years.

