

SAN JUAN BASIN GROUNDWATER AND DESALINATION OPTIMIZATION PROGRAM

MUNICIPAL WATER DISTRICT OF ORANGE COUNTY



PHOTO COURTESY OF SANTA MARGARITA WATER DISTRICT

This project was funded in part through Metropolitan’s Foundational Actions Funding Program. The study report is available on mwdh2o.com/AboutYourWater/FAFprogram.

Strategies for Optimal Use of Small Groundwater Basin

ANALYZING OPTIONS FOR SUSTAINABLE, LONG-TERM USE OF AN IMPAIRED BASIN

Through groundwater modeling, this study determined the feasibility of stormwater capture and recharge, recycled water recharge, adaptive production, and seawater intrusion control for the San Juan Basin. The study further developed and analyzed alternatives, strategies, and implementation approaches.

1

GOAL

Develop options to increase basin yield through conjunctive use of stormwater, recycled water, and seawater desalination

2

FINDINGS

Utilization of rubber dams were found to be the most feasible and cost effective approach for small groundwater basins compared to injection wells and seawater extraction

3

NEXT STEPS

Begin implementing the concept strategies identified in the study



ISSUES ADDRESSING

Underutilization of small impaired groundwater basins



POTENTIAL REGIONAL BENEFITS

Groundwater optimization techniques can be applicable to similar groundwater aquifers in the region



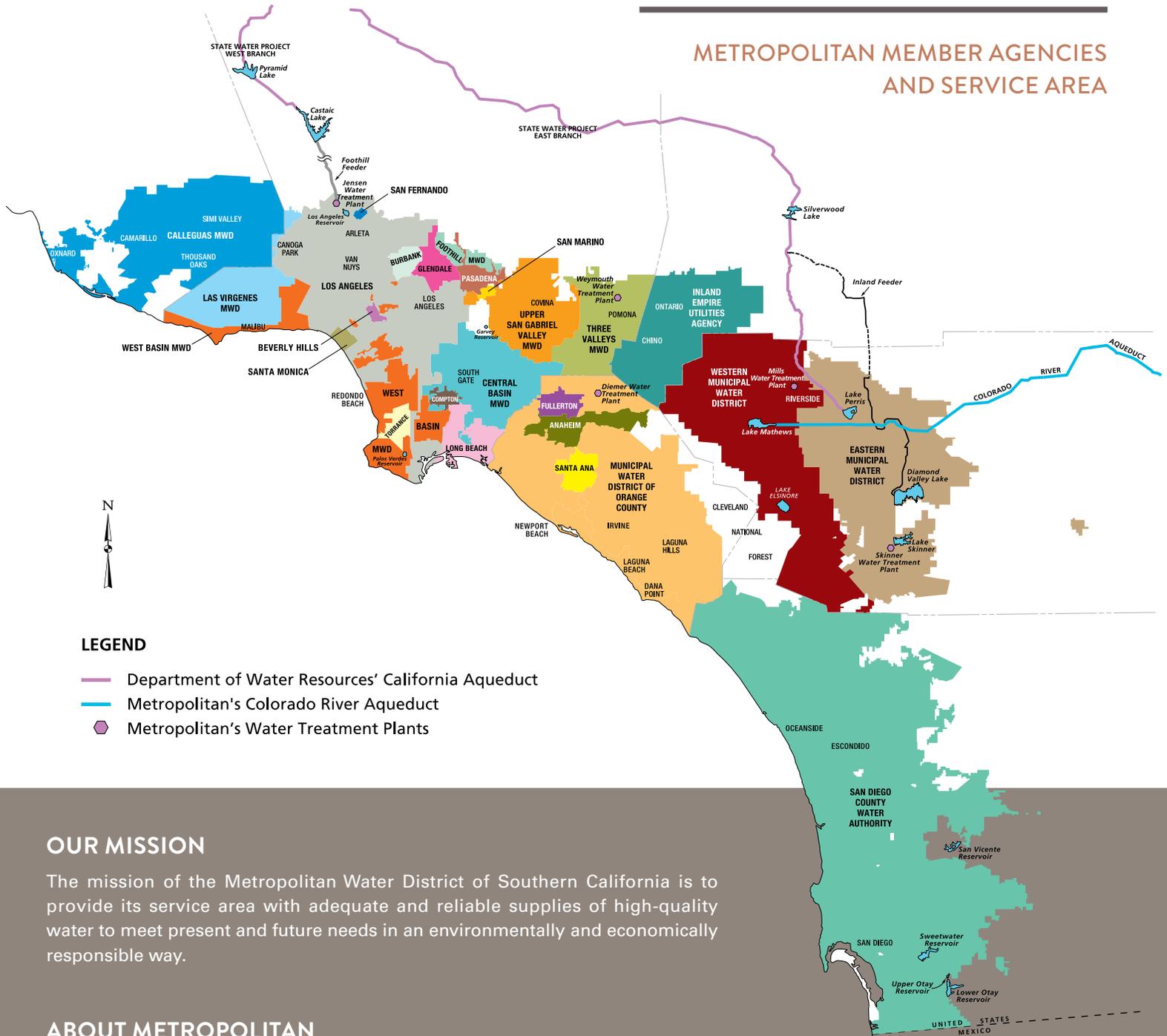
PROJECT PARTNERS

San Juan Basin Authority

Reducing Barriers to Future Water Resource Production

Metropolitan’s Integrated Water Resources Plan was developed as a blueprint for water supply reliability for Southern California. To implement this plan and address future water supply uncertainties, Metropolitan’s Board of Directors approved a pilot funding program for technical studies and pilot projects that reduce barriers to future production of groundwater, recycled water, seawater desalination and stormwater. The request for proposals to Metropolitan’s Member Agencies resulted in agreements for 13 projects totaling approximately \$3 million in funding. These projects evaluated new water treatment technologies, developed data to inform regulations, studied options for infrastructure innovation and identified future resource potential.

METROPOLITAN MEMBER AGENCIES AND SERVICE AREA



LEGEND

- Department of Water Resources' California Aqueduct
- Metropolitan's Colorado River Aqueduct
- ◆ Metropolitan's Water Treatment Plants

OUR MISSION

The mission of the Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

ABOUT METROPOLITAN

The Metropolitan Water District of Southern California is a state-established cooperative of 26 member agencies – cities and public water agencies – that serve nearly 19 million people in six counties. Metropolitan imports water from the Colorado River and Northern California to supplement local supplies and helps its members develop increased water conservation, recycling, storage and other resource management programs.

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