

IRVINE RANCH WATER DISTRICT POLICY POSITION ON METROPOLITAN WATER DISTRICT'S PROPOSED REGIONAL RECYCLED WATER PROGRAM

November 13, 2018

Issue Summary:

Metropolitan Water District of Southern California is currently studying the feasibility of developing a groundwater augmentation program utilizing advanced-treated recycled water, sometimes referred to as “the Carson Plant”. This regional water recycling program consists of facilities to treat effluent from the Joint Water Pollution Control Plant, which is operated by the Sanitation Districts of Los Angeles County in the city of Carson. The program would convey advance-treated recycled water for recharge at four groundwater basins in Metropolitan’s service area, including the Orange County Groundwater Basin. State water policy recognizes this type of project as a groundwater augmentation program, similar to the Groundwater Replenishment System operated by Orange County Water District. Metropolitan’s ongoing feasibility study includes the operation of a 0.5 million gallons per day (MGD) demonstration-scale project, currently under construction, that will be used to verify the designs for a full-scale project. The feasibility study will also identify the requirements for product water delivery facilities and for financing the program.

A full-scale project would provide up to 150 MGD of advanced purified water to the region and is expected to be available as a major source of reliable water for Orange County. Since the Carson Plant would provide a new source of water to Metropolitan’s service area, the water supply reliability for all of Southern California would be further diversified and improved.

Background:

The Carson Plant would utilize proven, state-of-the-art water treatment technologies, including a membrane bioreactor (MBR) system, followed by a reverse osmosis system. Ultraviolet light and an effective oxidant would destroy any remaining viruses, pharmaceuticals, and other chemical compounds.

The program would provide a source of water to four groundwater basins in Los Angeles and Orange County. Water deliveries to the basins would occur through approximately 60 miles of pipelines. It is anticipated that Orange County would receive up to 65,000 acre-feet per year (AFY) of purified water to be recharged by Orange County Water District. Currently, the cost to construct the project is estimated at \$2.9 billion with an estimated cost of water of \$1,600 per acre-foot. Once the project is approved, Metropolitan estimates that the project would take 11 years to design and construct. The project would comply with rules that have already been established in state policy for the indirect potable reuse (IPR) of water. Following is an overview of state policy related to the use of recycled water in California.

Existing State Policy:

In 2013, the State Water Resources Control Board amended California’s Recycled Water Policy, which included a mandate to increase the use of recycled water in the state by 500,000 AFY by 2030. This policy is currently being revised by the State Board to include additional water quality control provisions for recycled water. In 2014, California adopted IPR rules that provide detailed criteria for treatment processes, contaminants to test for, and how long treated water

must remain in the ground as a result of groundwater augmentation projects. In 2018, the state finalized surface augmentation regulations that allow advanced treated potable reuse water to be discharged into surface reservoirs that provide drinking water through traditional potable water treatment facilities. As yet, California does not have regulations that govern direct potable reuse (DPR) of water. In October 2017, AB 574 was signed into law that sets 2023 as the deadline for the development of raw water augmentation regulations that would facilitate DPR uses of highly treated recycled water by introducing the water upstream of existing conventional potable water treatment plants.

To help guide IRWD’s advocacy efforts related to the Metropolitan’s proposed Carson Plant, staff has prepared the following policy position principles:

Policy Principles:

1. State, regional, and local water resource policies should encourage, not penalize, the use of tertiary treated water along with the development of groundwater, surface and raw water augmentation projects that make use of proven technologies for the advanced treatment and use of recycled water.
2. The use of tertiary and advanced-treated recycled water should be maximized in advance of commitments to implementing more expensive and less reliable projects.
3. Metropolitan should update its ongoing feasibility study of the Carson Plant once the state releases raw water augmentation regulations in 2023. Consideration of these rules may result in a project that would produce water at a lower cost than currently envisioned by focusing exclusively on augmenting groundwater supplies.
4. The use of existing facilities should be given priority by Metropolitan, to the extent possible, to improve the cost effectiveness of the Carson Plant. The use of existing facilities should not impair Metropolitan’s ability to optimize the use of its facilities for the storage, treatment, and distribution of imported water.
5. Metropolitan should meld the costs of water from the Carson Plant into its full-service rate structure rather than recovering costs through take-or-pay contracts. If the project is used for groundwater augmentation, then the cost of water should be melded into Metropolitan’s Full-Service Tier 1 Untreated Rate. If the project is used for raw water augmentation, then the cost of water should be melded into the Full-Service Tier 1 Treated Rate.
6. Metropolitan should consider entering into partnerships with other water agencies for the design, construction, and/or operation of its Regional Water Recycling Program that do not result in local agencies subsidizing the cost of water to other agencies in Metropolitan’s service area.

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7. IRWD offers its support to Metropolitan in its ongoing feasibility study and shall share IRWD’s experiences in the application of Membrane Bioreactor and other technologies at the Michelson Water Recycling Plant.
8. Reliability benefits from the Carson Plant should be incorporated into ongoing and future water supply reliability studies performed in Orange County and Metropolitan’s service area.
9. IRWD shall advocate for participation in the Carson Plant by the Municipal Water District of Orange County and Orange County Water District as a means of maintaining higher water levels in the Orange County Groundwater Basin and improving the water supply reliability of all Orange County.