



San Diego County Water Authority

**4677 Overland Avenue
San Diego, California 92123**

SPECIAL BOARD OF DIRECTORS' MEETING

Board Room

June 14, 2012

1:30 p.m.

1. Call to order.
2. Roll call – Determination of a quorum.
 - A. Report on proxies received.
3. Public comment.
4. Workshop on issues related to the Carlsbad Desalination Project.
 - A. Integration of the Carlsbad Desalination Project.
 - i. Balancing treated water demand and proposed annual contractual commitment.
 - ii. Optimizing regional treated water facilities.
 - B. Range of costs and comparison with unit cost of alternative local supplies.
 - C. Incorporation of costs related to Carlsbad Desalinated Water into the Water Authority's rates and charges.
5. Adjournment.

Doria F. Lore
Clerk of the Board

NOTE: All public documents provided to the Board for this meeting including materials related to an item on this agenda and submitted to the Board of Directors within 72 hours prior to this meeting may be reviewed at the San Diego County Water Authority headquarters located at 4677 Overland Avenue, San Diego, CA 92123 at the reception desk during normal business hours.



June 11, 2012

Attention: Water Planning Committee

Special Board Workshop on Carlsbad Desalination Project Activities. (Information and Discussion)

Purpose

The purpose of this report is to provide background and an overview of the scheduled topics to be discussed by the Board at its June 14, 2012 Special Meeting regarding issues related to the Carlsbad Seawater Desalination Project. The topics to be discussed concern the incorporation of a potential Project into the Water Authority's rates and charges and specific operational issues related to maximizing the efficiencies and costs of integrating the desalinated seawater into the existing treated water delivery system.

Background

The Carlsbad Desalination Project (Project) is a fully-permitted seawater desalination plant and conveyance pipeline currently being developed by Poseidon Resources (Poseidon), a private investor owned company that develops water and wastewater infrastructure. The Project has been in development since 1998. The Project was incorporated into the 2003 Water Facilities Master Plan, the 2005 Update of the Urban Water Management Plan (UWMP) and the Water Authority's 2010 update of the UWMP. The Project has obtained all required permits and environmental clearances and, when completed, will be capable of providing a highly reliable local supply of 56,000 acre-feet (AF) per year for the region. According to the projections contained in the 2010 UWMP, in 2020 the Project would account for approximately seven percent of the total projected regional supply and 32 percent of all locally generated water in San Diego County.

At its July 22, 2010 meeting, the Board approved a Term Sheet between the Water Authority and Poseidon Resources regarding the preparation of a draft Agreement for 56,000 AF per year from the Carlsbad Seawater Desalination Project. Concurrently with development of a draft Agreement and associated due diligence activities, Water Authority staff and Poseidon have continued to refine the facilities requirements needed to connect the proposed desalinated water conveyance pipeline to existing Water Authority facilities for introduction into the regional aqueduct system. As part of the current update to the 2012 Regional Water Facilities Optimization and Master Plan, staff has been analyzing the integration of a potential Carlsbad Desalination Project into the regional treated water system and the optimization of existing regional facilities, such as the Twin Oaks Valley Water Treatment Plant (WTP).

Additionally, Water Authority staff has been working with the Board's Carlsbad Desalination Project Advisory Workgroup to develop alternative methods to incorporate a potential Carlsbad Desalination Project into the Water Authority's rate and charge structure. The preliminary framework for those alternatives was discussed with the Board at the April 19, 2012 Special Meeting of the Water Planning Committee.

Discussion

Integrating Carlsbad Desalination into the Treated Water Delivery System

The new supply produced by the Carlsbad Desalination Plant will meet all federal and state drinking water standards and can be introduced directly into the Water Authority's treated water delivery system. The intended method of introduction into the treated water system is the delivery of desalinated water from the Carlsbad Desalination Plant to the Water Authority's existing Pipeline 3 in San Marcos, which will be reoperated to deliver water north to the Twin Oaks Valley WTP. At the Twin Oaks Valley WTP, the desalinated water will be blended with imported water and reintroduced into treated water Pipeline 4 for conveyance to Water Authority member agencies.

One of the tasks undertaken in the current update to the Regional Water Facilities Optimization and Master Plan is to integrate water produced by the Carlsbad Desalination Plant into the existing treated water delivery system. The existing treated water delivery system consists of pipelines and treatment plants that, in the aggregate, meet member agencies' need to receive treated water from the Water Authority. Member agencies that own and operate their own treatment plants receive raw water from the Water Authority through the untreated water delivery system.

The Water Authority provides treatment service for member agencies either at the Twin Oaks Valley WTP, through owned capacity at Helix Water District's Levy Water Treatment Plant, contractual arrangements with individual member agencies owning treatment plants or through the Metropolitan Water District's Skinner Filtration Plant in southern Riverside County. The objective of the 2012 Regional Water Facilities Optimization and Master Plan Update is to optimize the use and cost of all those assets in light of integrating desalinated water into the existing treated water system. Achieving that objective is being analyzed in the context of a significantly lower long range water demand forecast in the 2010 Urban Water Management Plan than was projected in the 2003 Facilities Master Plan. This reduction in overall projected water demand results from both SANDAG's latest demographic forecast – which substantially reduced the number of future single family homes in the region – and the state's SB 7X-7 water conservation legislation requiring a 20% reduction in per capita water use by 2020.

Optimization of the existing treated water facilities also requires an optimization of the annual amount of water purchased from Poseidon on a take and pay if delivered arrangement. The amount of the Water Authority's annual commitment to purchase desalinated water needs to take into account the operation of the existing system, the seasonal variation of demand and the effects of extreme dry or wet weather on water demand. At the June 14, 2012 Board workshop, staff will present the results of its analysis of balancing the integration of the Carlsbad desalinated water into the treated water system with the utilization of regional facilities such as the Twin Oaks Valley WTP and meeting other operational commitments and obligations.

Adding a Potential Carlsbad Desalination Project into Water Authority Rates and Charges

As reported and discussed by the Board at previous meetings, entering into an Agreement with Poseidon would result in a 30-year financial commitment by the Water Authority and its member

agencies to purchase a specific amount of desalinated water annually if the water was delivered and met water quality requirements. It would also signify a long term commitment to purchase a highly reliable supply at a significantly higher price than currently existing Water Authority supplies. Given the significance of this commitment, the reduced water demand environment, and the financial health of the organization, it cannot be entered into without thoughtful and deliberate decisions being made on how to pay for it through the term of the Agreement.

As discussed at the April 19, 2012 Special Meeting of the Water Planning Committee, adding the Carlsbad Desalination Project into the Water Authority's rate and charge structure will continue to follow Cost of Service principles used in rate setting practices. This requires that the cost of the project and the manner in which revenues are collected reflect a fair and equitable approach to allocating costs to beneficiaries to pay for the cost of water for the duration of the Agreement with Poseidon.

At the April 19, 2012 Special Meeting of the Water Planning Committee, the Board discussed the steps required in Cost of Service rate setting and how they applied to the Carlsbad Desalination Project as well as the identification of specific benefits resulting from implementation of the project and how those benefits would match up to existing or potential rate service categories. At the June 14, 2012 Board Workshop, staff will present the range of estimated costs for the Carlsbad Desalination Project taking into account seasonal variations in demand, optimization of existing regional facilities and the cost of new and modified facilities needed to accept the Carlsbad desalinated water into the existing delivery system. Those costs will be applied to multiple rate and charge structure alternatives for the Board to assess the impacts and provide staff direction on how to proceed to narrow the alternatives for future discussion and consideration. As requested at the April 19, 2012 Board workshop, staff will also be presenting a comparison of the total unit cost of water from the Carlsbad Desalination Plant with the total unit cost of alternative sources of local supplies.

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