

- **Board of Directors**
Water Planning, Quality, and Resources Committee

September 10, 2002 Board Meeting

10-2

Subject

Seawater Desalination Program Update

Description

Request for Proposal (RFP) Process

In August 2001, Metropolitan established the Seawater Desalination Program with the primary objective of supporting the development of cost-effective seawater desalination projects consistent with Metropolitan's overall water supply reliability needs. In November 2001, Metropolitan issued a competitive Request For Proposal (RFP) soliciting seawater desalination project proposals sponsored by member agencies, which could receive incentives of up to \$250 per acre-foot (AF) of production. The RFP targeted up to 50,000 acre-feet per year (AFY) of sustained production, which would contribute towards a future seawater desalination target to be established as part of the Integrated Resources Plan (IRP) Update. The RFP further identified that Metropolitan could select a project or mix of projects that would more or less meet the targeted production. In response, Metropolitan received five proposals that collectively could produce about 126,000 AF of drinking water per year ([Attachment 1](#)). Detailed proposals were received from:

- Los Angeles Department of Water and Power (LADWP)
- Long Beach Water Department (Long Beach)
- Municipal Water District of Orange County (MWDOC)
- San Diego County Water Authority (SDCWA)
- West Basin Municipal Water District (West Basin)

A RFP review committee, comprised of Metropolitan staff and water resource consultants, has assessed the proposals using the scoring criteria adopted by the Board, and is currently in the process of developing an evaluation report. Based on their evaluation, SDCWA's Carlsbad Seawater Desalination Project proposal of 56,000 AFY is considered complete and the most responsive. Significant progress has been made on the project related to environmental documentation and project permitting, which is key to board approval and achieving timely and successful project implementation.

The remaining four project proposals require additional time to finalize project research and planning efforts. The stated production from these and future projects could be incorporated into an expanded seawater desalination target under the current IRP Update. An additional 100,000 AFY of seawater desalination will be considered in the IRP Update, potentially as a buffer supply to be developed in advance of need to mitigate factors of uncertainty which could result in increased demands or reduced local and imported supplies. Implementing such a target would also be consistent with plans to initiate a new RFP for projects under the Local Resources Program (LRP). Discussion and recommendations related to these supply targets will be accomplished through the IRP Update process. Based on input from the IRP Update, staff would seek board approval in fall 2002 to proceed and develop uniform agreement terms and conditions that would be applicable to all seawater desalination projects, and to enter into contract discussions with the San Diego County Water Authority for their proposed Carlsbad Seawater Desalination Project. If an expanded target for seawater desalination is provided in the IRP Update, staff would recommend commencing contract discussions with the other project proponents. Staff recommends that provisions be made to coordinate state and federal funding requests among the projects, and that additional benchmarks and milestones during project development would be incorporated into agreement

terms to assess progress and risks, and allow mutually agreeable opportunities for either party to withdraw commitment to projects if necessary.

Seawater Desalination Research Activities

In October 2001, the Board approved development and implementation of a seawater desalination research program to provide consistency with the RFP process and Metropolitan's ongoing efforts in the Desalination Research and Innovation Partnership Program. Research would focus on practical areas of interest with value-added objectives for Metropolitan and its member agencies.

Input from proposals received under the RFP and current research activities by the member agencies point towards a need for a coordinated, cooperative research agenda for seawater desalination. A common agenda would assure proper focus and scope on various topics and strengthen efforts to seek state and federal funding to achieve research objectives. Interested parties would be encouraged to lead and/or participate in joint efforts. Staff has been working with the member agencies on a research task force to develop this cooperative agenda with the goal of formulating strategies to jointly pursue state and federal funding for capital projects. Obtaining state and federal funds may require providing matching funds, and staff will evaluate such opportunities and present them for board consideration and approval. It is expected that benefits derived from Metropolitan or state and federally funded research or production incentives would be shared by all member agencies.

Metropolitan is also involved in a number of activities at the national level related to seawater desalination, including strategic workshops to develop federal research targets and encouraging state and federal efforts to identify desalination research needs. Several national research organizations including the National Water Resources Institute and American Water Works Association Research Foundation have also participated in these efforts. One federal research target likely to emerge will be the reduction of current costs to desalinate seawater. Similarly, other possible research targets include membrane processes, energy consumption, brine disposal and management, and other emerging processes. Staff will develop a conceptual cooperative research agenda outline to provide consistency and efficiency in defining projects.

Policy

Board Letter 9-12, dated February 13, 2001, adopting policy principles for brackish and seawater desalination
Board Letter 9-6, dated August 20, 2001, approving the Seawater Desalination Program and Administrative Guideline

Board Letter 8-9, dated October 16, 2001, approving the Seawater Desalination Research Program

Fiscal Impact

None


 Stephen N. Arakawa
 Manager, Water Resource Management

8/28/2002

Date


 Ronald R. Gastelum
 Chief Executive Officer

8/28/2002

Date

Attachment 1 – Seawater Desalination Program Proposal Summary

BLA #1657

**Seawater Desalination Program RFP
Proposal Summary**

Proposal No.	Project Name	Member Agency	Yield (AFY)	Requested Incentive (\$/AF)	Requested Term (Years)	Capital Cost (\$M)	Production Year
1	Desalination Research and Demonstration Project	Long Beach	10,000	250	25	74 / 115	2009
2	Carlsbad Seawater Desalination Project	SDCWA	56,000	250	25	301	2006
3	Proposed Seawater Desalination Plant	LADWP	12,100	250	25	70	2008
4	Ocean Water Desalination Plant	West Basin	20,165	250	25	130	2009
5	Orange County Ocean Water Desalination Plant	MWDOC	28,000	250	25	115	2008
		Total	126,265				