

● **Board of Directors**
Water Planning and Resources Committee

January 9, 2001 Board Meeting

11-1

Subject

Proposed Brackish and Seawater Desalination Policy Principles

Description

At its December 2000 meeting, the Board reviewed and discussed a report on seawater desalination activities, which reported on:

- Activities carried out under the 1995 seawater desalination policy principles.
- A survey of member agency seawater desalination projects.
- Coordinated legislative activities to generate support for state and federal funding of seawater desalination projects.

Metropolitan's 1995 seawater desalination policy principles established a direction that focused on the development of technology innovations and research to reduce the costs associated with the resource. Under this policy, Metropolitan sought partnership with governmental and private sector entities to pursue the technology innovations and research activities.

Current conditions warrant a review and update of those policy principles. The pending Integrated Resources Plan (IRP) review will confirm the targets and unit costs for resources that will be required to support the proposed new rate structure. This effort will provide the opportunity to update the cost information for both brackish and seawater desalination, and review their roles, along with other resources, as part of the IRP. Since 1995, there have been technological advances that promise to provide significant reductions in total project costs for both brackish and seawater desalination. The approach taken in Tampa Bay, Florida, merits consideration for how a similar competitive selection process for seawater desalination might benefit Southern California. Responding to these conditions under the 1995 policy principles has become increasingly difficult. Over the past year, various member agencies have requested that Metropolitan restate its policy principles for desalination with the objective of more clearly reflecting the role both brackish and seawater desalination will play in meeting future demands. At the December 2000 board meeting, a draft proposal for brackish and seawater desalination policy principles was proposed by several member agencies for input and consideration. ([Attachment 1](#))

Staff has reviewed the member agency draft proposal for suggested policy principles for brackish and seawater desalination and has provided an assessment of those principles ([Attachment 1](#)). Additionally, based on that assessment, staff has prepared draft policy principles for brackish and seawater desalination for review and consideration by the Board. ([Attachment 2](#)). These draft policy principles are consistent with the objectives of the pending IRP review. Furthermore, the draft policy principles reflect the need for a balanced, incremental approach in the development of desalination and are consistent with the proposal by the member agencies. The draft policy principles also seek to clarify the policy issues for desalination in the areas of planning, financing, development, legislative activities and research. The principles also have the objective of facilitating a broad range of action that the Board may take in response to a variety of inputs or challenges in the future. For each principle, staff has prepared an alternative for Board consideration and discussion.

Policy

Prior Board direction provided by board letter dated July 18, 1995

Board Options/Fiscal Impacts

Option #1

Approve the staff prepared draft desalination policy principles. ([Attachment 2](#))

Fiscal Impact: There is no immediate impact from this action. However, approving the draft policy principles will change Metropolitan’s direction on brackish and seawater desalination, providing opportunities in the future to lower the overall costs for the resource. Restated principles will also facilitate consideration of brackish and seawater desalination opportunities in the IRP review. Retaining the 1995 policy principles may not provide Metropolitan the ability to take advantage of future opportunities to lower the overall costs for desalination, because of their focus and approach.

Option #2

Approve a combination of the staff prepared draft policy principles as presented in Attachment 2.

Fiscal Impact: Same as Option #1.

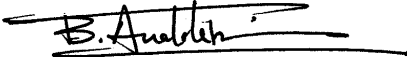

Option #3

Take no action. Incorporate desalination in the IRP review within the context of the 1995 policy principles and receive further direction from the Board as the IRP review is prepared.

Fiscal Impact: There is no direct impact from this action.

Staff Recommendation

Option #1.

		1/3/2001
for	Stephen N. Arakawa, Manager Water Resource Management	Date
		1/3/2001
	General Manager	Date

Attachment 1 - Metropolitan Staff Assessment of Member Agency Suggested Policy Principles
Attachment 2 - Draft Policy Principles for Desalination

**Metropolitan Staff Assessment of Member Agency Suggested Policy Principles for
Brackish and Ocean Desalination
For the Metropolitan Water District of Southern California
(Submitted on 12/12/00 by the City of Long Beach, Central and West Basin MWD,
and Inland Empire Utilities Agency)**

Member Agency Proposal

Metropolitan's Brackish Groundwater Desalination and Ocean Desalination (Desalination) efforts shall be in partnership with Member Agencies, shall be congruent with the current and updated Integrated Resource Plans (IRP), and in accordance with the following principles.

1. Metropolitan, when determining targets for desalinated water in updates to its IRP, shall:
 - a. Value the following benefits in the IRP:
 - Certainty of the supply source to actually deliver the planned level of supply far into the future (ie., the vulnerability of the supply to interruption from factors such as pollution, environmental demands, changes in water quality standards, public resistance to consuming the supply, potential of water rights disputes, and others);
 - diversified supply portfolio;
 - water reliability during both dry years and emergencies; location within Metropolitan's service area; improved water quality; and decreased demand on import conveyance and treatment.
 - b. Consider cost trends such as the long-term trends in decreased capital and operating cost of desalination plants.
 - c. Provide financial and other support for the develop of full-scale desalination on an incremental basis, in advance of the projected need for desalination, for the purpose of developing regional expertise in this technology rather than anticipating the initial development of multiple full-scale desalination project concurrently;

MWD Staff Assessment

The existing IRP specifically states that a comprehensive water resources plan should ensure: (1) reliability, (2) affordability, (3) water quality, (4) diversity of supply, and (5) adaptability for the region, while recognizing the environmental, institutional and political constraints to resource development.

The above (a) and (b) are not inconsistent with existing IRP policy and need not be restated. The question presented in (c) of whether Metropolitan should provide financial support to develop full scale desalination should follow, not precede the IRP review. The Board could, however, direct that in the IRP the staff analysis should consider development of "full-scale desalination on an incremental basis, in advance of the projected need for desalination, for the purpose of developing regional expertise in this technology rather than anticipating the initial development of multiple full-scale desalination projects concurrently."

Member Agency Proposal

2. Metropolitan shall participate financially with interested Member Agencies in development of desalination projects provided that the benefits to Metropolitan are commensurate with Metropolitan's investment. These benefits may, as noted above, include such things as improved water quality and water reliability.

MWD Staff Assessment

Rather than focus specifically on how Metropolitan shall financially contribute with the Member Agencies, policy should establish that:

- *Metropolitan will seek to develop financial plans for desalination that combine federal, state, regional, and local funding and ensure that benefits are commensurate with investments from those sources.*
- *Metropolitan may partner with public and private entities for the development of desalination. Metropolitan will seek these partnerships through competitive processes to help further lower the costs for this resource.*

Member Agency Proposal

3. Metropolitan shall, on its own or by supporting Member Agencies, pursue and secure viable and advantageous sites for future desalination plants, when economically feasible, prior to those sites being divested, developed or otherwise lost for future use.

MWD Staff Assessment

The emphasis on land alone may be too narrow, possibly constraining the Board from future action if it finds there are other components of desalination, such as permits, outfalls, pollution credits or co-location agreements, which are more critical. Policy should reserve the ability to move quickly if it is part of the IRP plan for desalination overall. Below is suggested alternative language:

- *Metropolitan may pursue activities critical to the development of desalination, such as land or other property acquisition, that may be necessary in advance of the planning horizons established for the resource.*

Member Agency Proposal

4. Metropolitan will remain open to traditional or innovative project development and implementation models for desalination, including participation by the private sector when done in the context of a partnership with a Metropolitan Member Agency.

MWD Staff Assessment

If the suggested language for Policy Principle No. 2 is incorporated, this principle would no longer be needed.

Member Agency Proposal

5. Metropolitan shall work with its Member Agencies to:
 - a. Secure State, Federal or other sources of funds for desalination development;
 - b. Inform key State and Federal decision-makers at the State and Federal level about the role and potential for desalination in Southern California;
 - c. Inform and educate the Public about the role and potential for desalination in Southern California.

MWD Staff Assessment

A legislative strategy for desalination should focus on information, education, and consensus building for critical objectives that help with the funding of the resource. Below is suggested alternative language:

- *Metropolitan will lead in the development of legislative strategies that, in coordination with the member agencies, build consensus among federal, state, and local policy makers to secure decisions favorable to the development of desalination for the region. These strategies will address:*
 - a. *Funding in the form of grants or loans from various sources.*
 - b. *Legislation that facilitates the components of the development process for desalination, such as financing, permitting, constructing and operating.*
 - c. *Informing and educating various constituencies on the critical role that desalination plays for the region's future.*

Member Agency Proposal

6. Metropolitan may promote desalination research and innovation opportunities within Southern California.

MWD Staff Assessment

The language should be expanded to describe how and why Metropolitan would undertake research. The current efforts on the Desalination Research and Innovation Partnership (DRIP) have been successful and policy language should reflect that approach. Below is suggested alternative language:

- *Metropolitan will promote desalination research and innovation through partnerships that competitively fund projects that provide benefits to the development of desalination for the region.*

Draft Policy Principles for Brackish and Seawater Desalination

Metropolitan's brackish water desalination and seawater desalination (desalination) efforts shall be in partnership with Member Agencies, shall be congruent with current and updated Integrated Resource Plans (IRP), and in accordance with the following principles.

1. In its IRP analysis, Metropolitan should consider development of full-scale desalination on an incremental basis, in advance of the projected need for desalination, for the purpose of developing regional expertise in this resource rather than anticipating the initial development of multiple full-scale desalination projects concurrently.

Alternative Principle: Metropolitan shall develop brackish and seawater desalination as the IRP establishes a time horizon for those resources, and shall develop only the most cost-effective projects first.

2. Metropolitan will seek to develop financial plans for desalination that combine federal, state, regional, and local funding and ensure that benefits including water quality and reliability are commensurate with investments from those sources.

Alternative Principle: Metropolitan will seek to develop financial plans for desalination that combine Metropolitan and local agency funding and ensure that benefits including water quality and reliability are commensurate with investments.

3. Metropolitan may pursue activities critical to the development of desalination, such as land or other property acquisition, that may be necessary in advance of the planning horizons established for the resource.

Alternative Principle: Metropolitan may pursue activities critical to the development of desalination only when part of an approved project as identified and staged in the IRP.

4. Metropolitan will lead in the development of legislative strategies that, in coordination with the member agencies, build consensus amongst federal, state, and local policy makers to secure decisions favorable to the development of desalination for the region. These strategies will address:

- a) Funding in the form of grants and/or loans from various sources.
- b) Legislation that facilitates the components of the development process for desalination, such as financing, permitting, constructing and operating.
- c) Informing and educating various constituencies on the critical role that desalination plays for the region's future.

Alternative Principle: Metropolitan will coordinate with member agency legislative strategies that build consensus amongst federal, state, and local policy makers to secure decisions favorable to the development of desalination for the region. These strategies will address:

- a) Funding in the form of grants and/or loans from various sources.
 - b) Legislation that facilitates the components of the development process for desalination, such as financing, permitting, constructing and operating.
 - c) Informing and educating various constituencies on the critical role that desalination plays for the region's future.
5. Metropolitan will promote desalination research and innovation through partnerships that competitively fund projects that provide benefits to the development of desalination for the region.

Alternative Principle: Metropolitan will maintain its current direction for desalination research and innovation through its existing Desalination Research and Innovation Partnership (DRIP).