

WEST BASIN MUNICIPAL WATER DISTRICT **NOVEMBER 8, 2001 – Water Resources**
Smith – No Quorum
November 17, 2001
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INFORMATION CALENDAR

SEAWATER DESALINATION PILOT PLANT

SUMMARY:

At the Special Board meeting on November 27, 2000, a seawater desalination workshop was presented. At that workshop a small-scale (40 gallons per minute) seawater pilot plant was discussed as an incremental part of a potentially larger project. Since the workshop, many advances have been made towards implementing the pilot plant including:

- Staff convened a workshop of industry experts including AWWARF, NWRI, SPI, DHS, and others to discuss the highest needs for seawater desalination testing. The top areas of research needed were determined to be seawater desalination pretreatment and water quality;
- El Segundo Power LLC II and your Board have approved a memorandum of understanding outlining a three year commitment to pilot testing seawater desalination. Key points of the MOU include:

El Segundo Power will:

- Provide access to the seawater inlet and outlet,
- Provide site and utilities for a seawater pilot plant, and
- Allow ingress and egress for the researchers.

West Basin will:

- Design, construct and operate the seawater pilot plant at its own cost;
- Prepare the research program and testing protocol;
- Perform the research testing; and
- Obtain any permits needed to operate the plant.

- The AWWARF has approved a grant of \$175,000 for water quality research at the seawater desalination pilot plant;
- NWRI has approved a grant of \$77, 830 for seawater pilot plant testing. (Total testing costs \$159,660 of which West Basin and NWRI will contribute \$77,830 each and El Segundo Power \$4,000); and

- USBR has approved a grant of \$176,000 for the development of a seawater pilot plant unit. (Total development cost \$253,000 of which the USBR will contribute \$176,000 and West Basin \$57,000).

Next step for West Basin is to authorize the design and development of a Seawater Pilot Plant and to develop the pilot plant testing protocol for implementation of the work being funded by NWRI and AWWARF. Staff will bring to the Board in December a proposed recommendation for proceeding.

The schedule for the first years' pilot plant testing is as follows:

Design of pilot plant and development of testing protocol	-	Two months
Development of the pilot plant unit	-	Three months
<u>Initial pilot plant test program (AWWARF and NWRI)</u>	-	<u>Seven months</u>
Total schedule	-	Twelve months

The Metropolitan Water District is currently reviewing its role in the development of seawater desalination as a new supply source for the area. MWD is moving forward on two fronts: MWD conducting a literature review on seawater research and seawater desalination grant program of up to \$250 per acre-foot (similar to the recycled water LRP program).

The MWD Board approved in October a research program that initially consists of a literature research to determine what research areas should be pursued. The literature research and review could take up to a year before MWD proceeds with actual research.

In September, the MWD Board directed staff to develop an RFP for a seawater development program (similar to the recycled water LRP). MWD staff is expected to present the draft RFP at the November MWD committee meeting.

FISCAL IMPACTS:

This item is in the current budget.

ENVIRONMENTAL COMPLIANCE:

An updated NPDES permit for the ocean outfall may be needed. Staff will follow up with the Regional Water Quality Control Board.

COMMITTEE STATUS:

This item was discussed during an oral report at the Water Resources Committee meeting on November 8, 2000 and was agendaized to the November 26, 2001 Board meeting as an information item.

RECOMMENDED MOTION:

This item is for information only.

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