

WEST BASIN MUNICIPAL WATER DISTRICT **OCTOBER 4, 2001 – Water Resources**
McDonald, Little
OCTOBER 22, 2001 – Board Meeting
Prepared by: Paul Shoenberger
Submitted by: Paul Shoenberger
Approved by: Darryl G. Miller

ACTION CALENDAR

SEAWATER DESALINATION PILOT PLANT MEMORANDUM OF UNDERSTANDING

SUMMARY:

At a Special Board meeting on November 27, 2000, a seawater desalination workshop was presented. At that workshop the District's seawater desalination opportunities were discussed. These included a small-scale pilot plant and eventual development of a National Seawater Desalination Research and Education Center.

West Basin staff has been pursuing an opportunity for a seawater desalination pilot plant with the El Segundo Power Generating Station. They have indicated a willingness to provide land and utilities needed for West Basin to run a pilot plant for seawater desalination. Areas of study that would be covered include: maximization of various pretreatment technologies, determination of energy requirements and reverse osmosis (RO) membrane fouling, performance characteristics of various RO membranes, source water quality, product water quality, and introducing desalinated water into an existing potable distribution system. The pilot testing will assist in the development of water quality and design information needed for desalination of seawater for drinking water purposes on a regional and worldwide basis.

A draft "Memorandum of Understanding" (MOU) attached as Exhibit A, was reviewed by the El Segundo Generating Station's legal representatives, and approved by their executive board on Friday, September 28, 2001. Key points covered by the MOU are:

West Basin MWD shall:

- Design, construct, operate and maintain a seawater Pilot Plant at the Generating Station. The Pilot Plant will desalinate seawater for research purposes, then recombine the water for disposal;
- In coordination with West Coast Power, design and install the connections necessary to operate the pilot plant, including condenser concentrate feed water connection and piping, the electrical connection and seawater disposal line;
- Obtain and maintain all permits or regulatory authorizations necessary for the installation and operation of the Pilot Plant throughout the term of the MOU; and
- Abide by West Cost Power safety and working regulations.

El Segundo Generating Station shall:

- Provide to District, names of acceptable design consultants for the design of the condenser connection, power connection, seawater disposal pipe, and names of acceptable contractors to construct the connections;
- Review and approve the design of the condenser connection, power connection, and seawater disposal line;
- Provide 20 kW of 480 volt electrical power for the operations of the plant;
- Provide a location for the connection to the condenser concentrate for feed water for the Pilot Plant;
- Provide up to 50 gpm of condenser concentrate as feed water for the Pilot Plant; and
- Provide property and necessary rights of way at the Generating Station for District to install and operate the pilot plant and associated connectors.

A corporation called El Segundo Power I, LLC operates the El Segundo Generating Station. El Segundo Power is owned half by Dynegy and half by NRG Engery Inc. The MOU will be with El Segundo Power I, LLC.

FISCAL IMPACTS:

Funds are provided in this year's capital budget for the pilot plant construction and testing. Partnerships have been developed with the USBR, AWWARF, NWRI, Tampa Water, and several Southern California water agencies to offset funding for the construction of the pilot plant and to participate in the research projects.

ENVIRONMENTAL COMPLIANCE:

Staff will discuss the need for permits with regulatory agencies.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Committee on October 4, 2001 and was recommended for approval at the October 22, 2001 Board meeting.

RECOMMENDED MOTION:

Authorize the General Manager to sign a seawater desalination pilot plant MOU with El Segundo Power I, LLC, substantially similar to the attached MOU.

EXHIBITS:

Exhibit A – MOU for Seawater Desalination Research Pilot Plant

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