

## WEST BASIN MUNICIPAL WATER DISTRICT

OCTOBER 9, 2002–Water Resources  
McDonald, Little

OCTOBER 28, 2002 – Board Meeting

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## ACTION CALENDAR

OCEAN WATER DESALINATION UPDATESUMMARY:MWD Request for Proposals

MWD staff is expected to formally recommend to its Board at the MWD November Board Meeting acceptance of all five proposals. MWD staff will also recommend increasing the initial goal of 50,000 acre-feet per year of ocean-water desalination to 150,000 acre-feet per year.

Ocean Water Desalination Coalition

The Ocean Water Desalination Coalition and MWD staff has planned a series of meetings in Washington, D.C. with elected officials on October 17-18. The goal of this trip is to set the stage to pursue future funding strategies for proposed ocean-water desalination projects.

Ocean Desalination Demonstration Project Grant Funding

West Basin staff received and executed the Federal Bureau of Reclamation Agreement for the \$176,000 grant issued for the Ocean-Water Desalination Demonstration Program on September 24. To date, a total of \$788,830 has been secured in grant money and in-kind services from Federal, State, and Municipal agencies to assist in the funding of this Program. Staff has also identified an additional \$20,000 in prospective grant funding. The attached Exhibit "A" details these funding sources and status of funds received as of September 30.

Integration and Full-Scale Ocean Water Desalination Plant Siting Study

Staff is currently evaluating four potential locations for the proposed full-scale 20-MGD Ocean-Water Desalination Plant. HDR, the engineering firm contracted to prepare the integration study, is proceeding with siting analysis research at the proposed El Segundo Power Plant site and AES Redondo Beach Power Plant site in accordance with the Integration Study "Scope of Services". West Basin staff has taken the lead working directly with Chevron management regarding the feasibility or locating the full-scale ocean-water desalination plant within the El Segundo Refinery.

The status and preliminary findings of the siting study are as follows:

- **El Segundo Power Plant:** Development of siting criteria to locate the proposed full-scale desalination facility within the El Segundo Power Plant Property is currently underway. A major constraint associated with use of this site is that the El Segundo Power Plant Repowering Project must be completed prior to beginning construction of the proposed Desalination Plant. El Segundo Power recently stated that given the new realities of the State's energy market this Repowering Project has been pushed back at least three years which in turn would delay the West Basin Ocean-Water Desalination Program a minimum of three years as well. If they do not receive their Repowering Permit or receive a permit

with unacceptable conditions, El Segundo Power has indicated that the proposed site will be made available to West Basin immediately.

- **Chevron Refinery:** Staff has met with Chevron to develop siting criteria and define possible constraints in locating an ocean-water desalination plant within the Chevron El Segundo Refinery. Staff and Chevron management are currently developing a Memorandum of Understanding (MOU) detailing a work plan to jointly investigate with West Basin the feasibility of locating a full-scale 20-MGD ocean-water desalination plant within their property. Exhibit "B" is a copy of the proposed MOU and will be provided to the Committee as a handout. In addition to performing this specific siting analysis Chevron has requested West Basin's assistance in performing a Chevron Wastewater Conceptual Reuse Study. Staff recommends that these studies be funded through equal contributions of up to \$40,000 from each organization.
- **Redondo Beach AES Power Plant:** Staff continues to work with officials from AES regarding the feasibility of co-locating the proposed full-scale ocean-water desalination plant within the property boundaries of the AES Redondo Beach Power Plant. In concept they stated it would be feasible; however, they requested that West Basin work closely with the City during the evaluation of this siting alternative to ensure there would be no adverse impacts to the City's proposed Harbor Redevelopment Project. Staff met with the Director of Planning for the City of Redondo Beach on October 2, 2002 giving an overview of West Basin's ocean-water desalination program. In this meeting staff defined the siting criteria for location of the full-scale ocean-water desalination plant for further analysis by the City Planning staff.
- **LADWP Scattergood Power Plant:** Staff has discussed the possibility of locating the West Basin full-scale ocean-water desalination plant within the boundaries of the Scattergood Power Plant with LADWP. LADWP staff indicated that this would not be feasible for their organization at this time; therefore, West Basin staff will perform no additional analysis of this alternative at this time.

#### Demonstration Plant Operations

Both the National Water Research Institute and AwwaRF research studies are proceeding on schedule with over 1,200 individual tests for constituents having been performed as of October 1, including both raw ocean-water and the desalinated reverse osmosis (RO) product water testing. Based on the three months of data collected, the raw "full-strength" ocean-water has shown to be very stable at approximately 34,000 parts of salt (TDS). Testing to date also shows the RO product water to be of high quality with approximately 99% of the testing for constituents showing "non-detect" results.

#### Activities

Since the last Board update was prepared, staff has been active in pursuing ocean-water desalination efforts. The key activities are summarized below.

- September 10 Staff met with the Hispanic news organization La Opinion at the Ocean Desalination Demonstration Plant, followed by a tour of the facility.
- September 19 Staff met with the Associated Press at the Ocean Water Desalination Demonstration Plant, followed by a tour of the facility.

- September 25 Staff met with Chevron to further discuss feasibility of locating the full-scale 20-MGD ocean-water desalination plant within their property.
- September 25 Staff gave a presentation of the West Basin's ocean-water desalination program to the San Gabriel Watershed Council followed by a tour of the Demonstration Facility.
- October 2 Staff met with City of Redondo Beach regarding feasibility of locating a full-scale plant within or directly adjacent to the AES Redondo Beach Power Plant.

FISCAL IMPACTS:

Funds are budgeted in the FY 2002-03 CIP Budget; West Basin will contribute up to \$40,000 for the Chevron studies.

ENVIRONMENTAL COMPLIANCE:

Environmental study activities are proceeding on schedule.

COMMITTEE STATUS:

This item was reviewed at the Water Resources Committee meeting on October 9, 2002 and was recommended for approval at the October 28, 2002 Board meeting.

RECOMMENDED MOTION:

Authorize the General Manager to enter into a Memorandum of Understanding with Chevron to jointly perform an Ocean Water Desalination Plant Conceptual Siting Study and a Chevron Wastewater Conceptual Reuse Study for a total cost to West Basin not-to-exceed \$40,000.

EXHIBITS:

- Exhibit "A" - Ocean Water Desalination Demonstration Plant Grant Funding Status
- Exhibit "B" - Draft Memorandum of Understanding with Chevron to Jointly Perform an ocean-water desalination plant Conceptual Siting Study and a Chevron Wastewater Conceptual Reuse Study