

WEST BASIN MUNICIPAL WATER DISTRICT**NOVEMBER 16, 2006 - Water Resources**
Little, Kwan**NOVEMBER 27, 2006 - Board Meeting**

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ACTION CALENDAR

OCEAN-WATER DESALINATION
DEMONSTRATION PROJECT DEVELOPMENT SERVICESSUMMARY:**Demonstration Project Services**

In August 2006, West Basin Municipal Water District (District) procured professional engineering services of MWH, Inc. to provide a multi-tasked assessment for implementing the District's Temporary Ocean-Water Desalination Demonstration Project. This Project contains a wide scope of services, which includes a water source assessment, process analysis, siting and feasibility study, environmental and permitting evaluation, cost estimating, and operational protocol analysis. This work will be used as the basis to formulate the next phase of work that will include the actual design and permitting of the District's Temporary Ocean-Water Desalination Demonstration Project.

The initial MWH "Scope of Work" identified two potential sites that were to be evaluated for placement of the future Temporary Ocean-Water Desalination Demonstration Project. Recent conversations with AES management and the City of Redondo Beach have identified The Sea Lab as another potential site consideration for placement of the Temporary Ocean-Water Desalination Demonstration Project. The Sea Lab functions as a marine rescue and occupational learning center funded by the Los Angeles Conservation Corps and is housed in the old AES pump house adjacent to the AES Power Station. AES has committed to funding Sea Lab's mission for the long-term at this location. However, as a non-profit organization, Sea Lab is continuously looking for industry partners to share in the financial and environmental message of sound marine ecology and has suggested that the District consider placing the Temporary Ocean-Water Desalination Demonstration Project at the Sea Lab location. Co-location with the Sea Lab provides a mutually synergistic benefit to both the District and Sea Lab as it allows the local community to not only learn about marine ecology and the environment, but also about ocean-water desalination technology and the District's role as a regional water supplier.

Co-location of the Sea Lab site would require a detailed assessment of the viability of this option. This evaluation would require an addition to the MWH "Scope of Work" for permitting, siting feasibility, and process layout viability. The additional cost for the referenced "Scope of Work" is \$47,907. This cost is consistent with the level of effort that is being expended on the other two sites that were part of the original "Scope of Work". Staff recommends MWH's existing contract be amended to include these services.

Pilot Plant Permitting

In May 2002, the District commissioned one of the first Temporary Ocean-Water Desalination Pilot Plants on the West Coast. The Pilot Plant was established to assist in assessing the feasibility of whether ocean-water desalination could play a role in the District's regional water supply portfolio. The District's Pilot Plant has provided tremendous value towards the advancement of ocean-water desalination technology. It has provided the operational and

research foundation for implementation of the District's Temporary Ocean-Water Desalination Demonstration Plant. As the District continues towards the development of the Temporary Ocean-Water Desalination Demonstration Project, staff believes it is critical to maintain operations of the Pilot Plant facility. Continued operation of the Pilot Plant will provide an avenue to allow the District to continue research on several operational and water quality issues that have not yet been studied while the Demonstration Project is being developed. Additionally, the Pilot Plant provides a cost-effective arena to evaluate emerging technologies and other process technologies that would not be suitable or cost-effective for implementation at a full scale level.

Implementation of the Pilot Plant was originally permitted by a waiver from the Regional Water Quality Control Board (RWQCB). The Board granted the waiver in May 2002 and subsequently it was renewed in December 2005 for operational approval through June 2007. The District is initiating the procurement of a waiver past June 2007 for the continued operation of the Pilot Plant. However, the RWQCB in the last waiver extension indicated that an actual National Pollutant Discharge Elimination Permit would be required if further operation of the Pilot Plant was desired in-lieu of another waiver extension. Given the long timeframe in procuring the desired permit prior to the expiration of the existing waiver, staff is recommending that the District amend MWH's existing contract to assist the District in procuring this permit. MWH is experienced in permit procurement and has close relationships with many of the RWQCB staffers and regulators that would provide a critical element in obtaining the permit. The cost for the referenced "Scope of Work" is \$59,870. Staff recommends MWH's existing contract be amended to include these additional services.

FISCAL IMPACTS:

Funds for this project are available from the Construction Designated fund.

ENVIRONMENTAL COMPLIANCE:

Environmental requirements for this project will be evaluated as part of the permit application.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Committee on November 16, 2006 and recommended for approval at the November 27, 2006 Board meeting.

RECOMMENDED MOTIONS:

That the Board authorizes the General Manager to amend MWH's existing contract in the amount of \$47,907 to provide additional services to assess the siting, feasibility, and permitting requirements for the Sea-Lab facility for the temporary ocean-water desalination facility and in the amount of \$59,870 to provide permitting services to obtain a new National Pollutant Discharge Elimination System permit for the District's Ocean-Water Desalination Pilot Plant, plus 10% contingency, for a total not-to-exceed amendment amount of \$118,555 and a total not-to-exceed contract amount of \$1,154,135.

EXHIBITS:

None.