

**WEST BASIN MUNICIPAL WATER WEST BASIN****JUNE 12, 2008 – Water Resources**

Smith (Chair), Little

**JUNE 23, 2008 – Board Meeting**

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Approved by: Rich Nagel

## ACTION CALENDAR

TEMPORARY OCEAN-WATER DESALINATION DEMONSTRATION PROJECT  
MODIFIED 30% DESIGN SERVICESSUMMARY:

West Basin initiated design and permitting of the Temporary Ocean-Water Desalination Demonstration Project (Project) in mid-2007. Since that time, West Basin has completed a majority of the California Environmental Quality Act (CEQA) evaluation, draft Environmental Impact Report (EIR) preparation, and 30% design efforts. In early February 2008, West Basin held a series of stakeholder meetings with governing regulatory agencies, non-governmental organizations, and local citizens to present the conceptual layout of the Project and to acquire feedback from each of the organizations to facilitate final design and permitting. Each of the meetings were successful in providing valuable stakeholder input and further assisted West Basin in understanding how to address concerns expressed by the participating stakeholders.

With completion of the 30% design, several structural design challenges were identified in the layout of the Project. The leasehold at SEA Lab provides for use of both the decommissioned pump house and an outside area adjacent to the pump house. The original project layout was conceptually developed to place a majority of the process equipment within the pump house building while using the outside area for ancillary support equipment. A geotechnical and structural evaluation of the pump house facility has determined that the existing structure is not capable of supporting the large loads that would be induced upon it by placement of the desalination process equipment within the building. The cost to retrofit the building to an acceptable level for use as a process area would be beyond the original budget and scope of the temporary nature of the demonstration project. An alternative solution has been developed that allows the process equipment to be placed outside the pump house while continuing West Basin's commitment to provide public education and stakeholder involvement. The alternative solution includes the following:

1. Maintain the originally proposed intake methodology approach (passive wedgewire screen and Seabed Infiltration Pilot) at full design flow capacity (500,000 gallons per day) to demonstrate and address regulatory and environmental concerns;
2. Reduction of the desalination process capacity to accommodate the demonstration layout within the exterior leasehold; and
3. Demolition of the pump house electrical and mechanical equipment and placement of a useable and code compliant floor within the pump house to provide use of the interior leasehold as a public outreach facility.

This modified design allows West Basin to provide a meaningful demonstration project that addresses the critical environmental and regulatory issues, provides the opportunity to validate

operational and maintenance requirements of a full-scale facility, and provides a dedicated area for public outreach and education.

A substantial portion of the original 30% design effort and CEQA/EIR work can still be used. However, a complete redesign of the process, electrical, and instrumentation/controls disciplines will be required as the facility layout and design capacity has been substantially modified. Much of the original CEQA studies and EIR documentation can be used but must be updated to reflect the new design criteria and proposed layout.

An additional fee of \$243,406 has been negotiated with MWH to modify the 30% design and update the CEQA/EIR documents. Redesign efforts of process components will also need to be performed by SPI for an additional \$66,410.

FISCAL IMPACTS:

Funds for this project are included in the Fiscal Year 2007-08 and 2008-09 Capital Improvement Program Budget.

ENVIRONMENTAL COMPLIANCE:

The CEQA/EIR documents will need to be updated to reflect the modifications to the 30% design.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Committee on June 12, 2008 and recommended for approval at the June 23, 2008 Board meeting.

RECOMMENDED MOTIONS:

That the Board authorizes the General Manager to:

1. Amend Contract No. W1780 to perform the modified 30% design and CEQA/EIR updating for the Temporary Ocean-Water Desalination Demonstration Project in the amount of \$243,406 plus 10% contingency for a total not-to-exceed contract amount of \$3,658,484; and
2. Amend Contract No. W1781 to perform the modified 30% membrane and process design for the Temporary Ocean-Water Desalination Demonstration Project in the amount of \$66,410 plus 10% contingency for a total not-to-exceed contract amount of \$316,531.

EXHIBITS:

None.