

WEST BASIN MUNICIPAL WATER DISTRICT

DECEMBER 5, 2006 - Water Resources

Little, Dear

DECEMBER 21, 2006 – Sp. Board Meeting

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INFORMATION CALENDAR

TEMPORARY OCEAN-WATER DESALINATION DEMONSTRATION PROJECT
PHASE B – DESIGN SERVICES AND SEA LAB AGREEMENT

SUMMARY:

The West Basin Municipal Water District (District) has been progressively working towards implementation of a temporary ocean-water desalination demonstration facility (Facility) to acquire full-scale operational and water quality experience. As part of the process of implementing the Facility, the District competitively procured the services of MWH in August 2006 to provide a multi-tasked assessment of the District's Temporary Ocean-Water Desalination Demonstration Project (Project). MWH's initial phase (Phase A) of work 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. The District has been actively working through these original Phase A scopes of work and has made substantial progress in many of the time critical assessments in assisting the District with the siting determinations, permitting, and design requirements.

Site Selection

The siting and feasibility study has evaluated three potential sites for placement of the Temporary Ocean-Water Desalination Demonstration Project. These sites included El Segundo Power, Redondo Beach AES-south site, and Sea Lab. Some of the evaluation criteria that the team used focused on each site's ability to provide ample space, access to an adequate raw water source, and the permitting requirements/benefits/challenges that encompass each site. West Basin has also been working with local community groups and the cities to acquire public input and gauge support for each of the proposed site locations.

While each of the referenced sites would adequately host the District's Project, 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 learn about ocean-water desalination technology and the District's role as a regional water supplier. Additionally, due to the minimized available area of the Sea Lab site, this location alleviates concerns raised by the Redondo Beach City Council and a local community group about the long-term ability of turning the demonstration facility into a full scale facility. Both the Sea Lab management and AES Redondo Beach management support the District's Project at the Sea Lab site. It also appears from conversations with the City of Redondo Beach staff and various City Council members that this site provides the best approach to implementing the Project. Staff will be working with the Sea Lab to formulate an agreement establishing the terms in which the District will construct and operate the Facility. Staff will bring this agreement back to the Board for consideration at a future Board meeting.

Design Services

As the District moves into the second phase (Phase B – Design and Permitting) of work for the Project, providing concurrent work flow will be essential to meeting a startup of the Project by late 2008. Implementation of the design services component of work will be paramount to keeping this Project on schedule. As with the Phase B permitting "Scope of Work" (Scope), staff is requesting that MWH provide a proposal for the Phase B portion of work that would assist the District in performing a complete design package. MWH was competitively selected to assist the District in the various stages of implementation that include the planning/feasibility permitting design construction and operations

of the Facility. MWH's continuous role in each phase will provide continuity throughout the project and potentially reduce interferences between design philosophies of one team to those of a third party operational team and their associated protocols.

MWH's Scope for design services will include, but not be limited to, process recommendations, facility layout, mechanical, electrical, and instruction control design, structural analyses, surveying, bid package preparation, bid package review, and coordination with SEA Lab and AES personnel and the City of Redondo Beach. As with many of the District's other large and successful projects, the District has solicited the services of the District's membrane consultant, SPI, to perform the actual reverse osmosis system design and writing of the pretreatment specification requirements. This engineering design model has worked well for all of the District's previous membrane projects and is thought to apply to each of the next phases for the Project.

Staff will be negotiating this next phase of work with each of these firms to provide the pertinent design scopes and will bring a recommendation for design services to the Board for their consideration at a future Board meeting.

FISCAL IMPACTS:

Funds for this project are available from the Construction fund.

ENVIRONMENTAL COMPLIANCE:

Environmental requirements for this project will be evaluated as part of the CEQA process.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Committee on December 5, 2006 and agendized to the December 21, 2006 Special Board meeting as information for discussion.

RECOMMENDED MOTIONS:

None.

EXHIBITS:

None.