



● **Board of Directors**
Water Quality and Operations Committee

March 10, 2009 Board Meeting

8-1

Subject

Authorize entering into an agreement for a maximum of \$8.5 million with Siemens Water Technologies Corporation for the Tujunga Wellfield Groundwater Recovery Project

Description

This project will increase Los Angeles Department of Water and Power's (LADWP's) Tujunga Wellfield production by 24,000 to 36,000 acre-feet (AF) over a two-year period, thereby reducing demands on Metropolitan for imported water. This action authorizes an agreement with Siemens Water Technologies Corporation (Siemens) to fabricate, install, commission and operate two wellhead treatment systems at LADWP's Tujunga Wellfield. LADWP will reimburse Metropolitan fully for this project, including all costs incurred under this agreement.

Background

In August 2008, Metropolitan staff presented to the Board a status update on five-year supply actions to increase supply and manage water deliveries under continued drought and court-ordered restrictions. Groundwater recovery was one of the six identified initiatives. One of the groundwater recovery projects is to recover impaired groundwater from LADWP's Tujunga Wellfield site in the San Fernando Basin near the intersection of Interstate 5 and State Highway 170. The wellfield system includes 12 permitted production wells and associated facilities that can produce up to 100 cubic feet per second (cfs) of flow (73,000 AF per year) for distribution within Los Angeles. Throughout the years, contaminant plumes have limited production of the wellfield to less than 25 percent of its original design capacity.

The primary contaminants include industrial solvents (e.g., trichloroethylene (TCE), perchloroethylene (PCE), 1-1-dichloroethylene (1-1-DCE), and carbon tetrachloride) and other contaminants such as nitrate and perchlorate from historical agricultural or industrial production. Although some wells contain a complex mixture of difficult-to-remove contaminants, two wells readily lend themselves to treatment by liquid-phase granular-activated carbon (GAC) adsorption. The treatment of these two wells may allow additional wells to be brought on-line.

In December 2008, Metropolitan's Board and LADWP's board authorized a \$12 million reimbursable agreement between the two agencies to allow Metropolitan to assist LADWP with a temporary groundwater recovery project on two wells in the Tujunga Wellfield. This project will increase LADWP's wellfield production by 24,000 to 36,000 (AF) over a two-year period, thereby reducing demands on Metropolitan for imported water. LADWP will reimburse Metropolitan for all direct and indirect costs incurred, including the fully burdened cost of Metropolitan's staff.

Tujunga Wellfield Groundwater Recovery Project

The scope of this project includes design, installation, and operation of a temporary wellhead treatment system on two wells in LADWP's Tujunga Wellfield. LADWP will obtain all necessary operating and environmental permits; perform all site work; and reimburse Metropolitan for all its costs including the actual cost of labor, equipment, materials, and other services. Metropolitan is providing support in the areas of project management, design, procurement, installation support, and miscellaneous water quality and technical support.

A feasibility assessment based on known hydrology and water quality conditions has been completed by Metropolitan and approved by LADWP. The recommended treatment system includes wellhead treatment with centrifugal separators and liquid phase GAC adsorption vessels. It is expected that the treatment system can be on-line by the target date of September 2009.

Tujunga Wellfield Equipment Agreement

Selection of a vendor to provide the GAC system for the two Tujunga wells followed a competitive best-value award process. In January 2009, a Request for Proposal (RFP) was issued for the design, fabrication, installation, testing, commissioning, and operation and maintenance for two GAC wellhead treatment systems in the Tujunga Wellfield. Two firms responded by the deadline. Each proposal was evaluated according to the criteria established in the RFP. An interdisciplinary panel determined that Siemens was the most qualified respondent and that the proposed Siemens’ GAC system provides the best value in meeting the treatment and operational requirements of the two Tujunga wells.

This three-year agreement includes a base cost for detailed design, equipment fabrication, training, start-up and commissioning of two GAC wellhead treatment systems. The installation component of the work will be competitively bid by Siemens and awarded to the lowest responsive bidder. Since actual GAC usage will vary with water quality and water demand, a unit price of \$1.39 per pound of GAC was established for the first year.

Following is a breakdown of projected costs for this agreement:

Base cost including design, equipment fabrication, and start-up	\$4.00 million
Estimated cost for installation	\$0.65 million
Estimated GAC and operation & maintenance costs	<u>\$3.85 million</u>
Agreement not-to-exceed total	\$8.50 million

Based on these equipment and operating costs, the cost to produce 24,000 to 36,000 AF is approximately \$470 to \$665 per AF, which includes \$37 per AF for pumping energy per well. Actual costs incurred will depend on the change-out frequency of the GAC. Upon completion of the two-year period, LADWP could continue to operate the wells beyond the initial two-year evaluation period with the approval of the California Department of Public Health.

Summary

This action authorizes the General Manager to enter into an agreement with Siemens in an amount not to exceed \$8.5 million for the Tujunga Wellfield Groundwater Recovery Project. This action does not appropriate funds, as the costs incurred for the Tujunga Project are fully reimbursable by LADWP. See **Attachment 1** for a location map.

This project is consistent with Metropolitan’s goals for sustainability by protecting water quality and utilizing local water sources in order to maintain reliable water deliveries in the future.

Policy

Metropolitan Water District Administrative Code Section 4209: Contracts for more effective use of water resources

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 8149: Best Value Procurement

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action involves the funding and minor alterations of existing private or public facilities, along with minor modifications in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature,

scenic trees. These activities would not result in significant impacts to the physical environment. Accordingly, the proposed action qualifies under Class 1, Class 4 Categorical Exemptions (Sections 15301 and 15304 of the State CEQA Guidelines) and Section 15061(b)(3) of the State CEQA Guidelines.

The CEQA determination is: Determine that pursuant to CEQA, the proposed action qualifies under three Exemptions (Class 1, Section 15301, Class 4, Section 15304 and Section 15061(b)(3) of the State CEQA Guidelines).

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and authorize the General Manager to enter into an agreement with Siemens Water Technologies Corporation in an amount not to exceed \$8.5 million.

Fiscal Impact: None. December 2008 board action provided \$12 million in funding through a reimbursable agreement with LADWP for this agreement and other project costs.

Business Analysis: This option will accelerate the production of groundwater and reduce water demands on Metropolitan by up to 36,000 AF over a two-year period.

Option #2

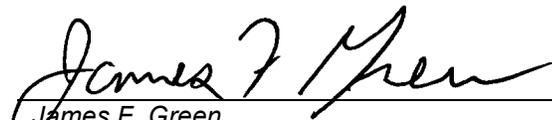
Do not authorize an agreement with Siemens Water Technologies Corporation

Fiscal Impact: None

Business Analysis: This option will forego an opportunity to recover groundwater supplies and increase water supply reliability in Metropolitan’s service area.

Staff Recommendation

Option #1


James F. Green
Manager, Water System Operations

2/24/2009
Date


Jeffrey Lightlinger
General Manager

2/24/2009
Date

Attachment 1 – LADWP’s Tujunga Wellfield Location Map

LADWP's Tujunga Wellfield Location Map

