

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

December 9, 2008 Board Meeting

8-1

Subject

Authorize a reimbursable agreement for a maximum of \$12 million with the Los Angeles Department of Water and Power for the Tujunga Well Field Groundwater Recovery Project

Description

This action authorizes a reimbursable agreement with the Los Angeles Department of Water and Power (LADWP). Metropolitan's assistance to LADWP will help accelerate a groundwater treatment project by using temporary wellhead treatment. This project will increase LADWP's well field production by 24,000 - 36,000 acre-feet (AF) over a two-year period, thereby reducing demands on Metropolitan for imported water. This reimbursable agreement could serve as a template for other structured partnerships and service agreements with member agencies in the future to accelerate delivery of other potential water supply or recovery projects.

Background

The San Fernando Valley Groundwater Basin is a significant local water source for the city of Los Angeles. However, groundwater contamination in the basin has reduced LADWP's ability to fully utilize this resource. To date, over 47 percent of LADWP's production in the San Fernando Basin has been removed from service due to contamination. 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.

LADWP's Tujunga Well Field is located in the San Fernando Basin near the intersection of Interstate 5 and State Highway 170. The well field 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 well field to less than 25 percent of its original design capacity.

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 have a positive influence on water quality and allow additional well or wells to be brought on-line.

In May 2008, the city of Los Angeles released a report titled "Securing L.A.'s Water Supply." This report described a multifaceted approach for creating sustainable water sources for the city, including accelerated cleanup of groundwater basins. Interim wellhead treatment at the Tujunga Well Field was identified in that report and has since been budgeted. Originally, this wellhead treatment project was not expected to be operational earlier than 2011, and LADWP was not able to accelerate this schedule without impacting other projects.

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.

Staff from LADWP and Metropolitan has jointly identified a project delivery mechanism for the well field treatment project which would expedite the production of 24,000 - 36,000 AF over a two-year period, with deliveries into LADWP's distribution system beginning as early as September 2009. These deliveries would reduce demands for imported water and increase water supply reliability for LADWP. In this joint effort,

Metropolitan will assist LADWP in the design, procurement, installation, and start-up of a temporary groundwater treatment system. Metropolitan's participation in this first phase of work would meet the strategic needs of both organizations by (1) increasing groundwater production and reducing LADWP's need for imported water, and (2) allowing LADWP staff to focus on the more comprehensive and complex project to restore its Tujunga Well Field to full production.

Tujunga Well Field 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 Well Field. The wellhead treatment system will likely consist of a sand filter, several liquid-phase GAC adsorption vessels in series, and a backwash disposal system. Metropolitan will provide support in the areas of project management, design, procurement, construction support, and miscellaneous water quality and technical support. Under the proposed agreement, Metropolitan's obligations will be as follows:

1. Conduct a feasibility analysis based on known hydrogeology and water quality conditions and recommend a treatment process for the Tujunga Well Field;
2. Perform water quality analyses, as needed;
3. Perform project management, design, procurement, installation and start-up of a temporary treatment system; and
4. Contract with a vendor to provide a turn-key treatment system for up to two years of operation with a performance guarantee.

Under the agreement, Metropolitan will defend, indemnify and hold harmless LADWP, its board of directors, and its employees and agents in the event of any related liability and claims arising out of the work to be performed by Metropolitan.

LADWP's obligations will include:

1. Serve as Lead Agency under the California Environmental Quality Act (CEQA) for implementation of the project;
2. Obtain all necessary permits to construct and operate the temporary water treatment system;
3. Conduct site investigations and construct all infrastructure and site work needed to support the temporary system;
4. Be responsible for meeting drinking water quality standards of the delivered water;
5. Operate the well field and distribution system in a manner coordinated with Metropolitan to produce the maximum volume of water possible during the two-year period; and
6. Reimburse Metropolitan for all its costs including the actual cost of labor, equipment, materials, and other services.

Under the agreement, LADWP will defend, indemnify and hold harmless Metropolitan, its Board of Directors, and its employees and agents in the event of any related liability and claims arising out of the work to be performed by LADWP.

The amount of the reimbursable agreement with LADWP will not exceed \$12 million. LADWP will reimburse Metropolitan for all direct and indirect costs incurred, including the fully burdened cost of Metropolitan's staff. Actual costs incurred will depend on the number of adsorption vessels and the change-out frequency of the GAC. Based on the estimated capital and operating expenses, the resulting cost of water will range from \$450 to \$630 per AF which includes \$80 per AF for pumping energy. Upon completion of the two-year period, LADWP could continue to operate the wells beyond the initial two-year period with the approval of the California Department of Public Health.

This action authorizes the General Manager to enter into a reimbursable agreement with LADWP for the Tujunga Well Field Groundwater Recovery Project. Metropolitan activities will include water quality analyses, engineering design, preparation of drawings and a performance specification package, development of construction and operating cost estimates, receipt of proposals, and all other activities in advance of award of a fabrication and installation contract. All activities are planned to be performed by Metropolitan staff.

An action by LADWP's board to authorize this agreement is also planned for December 2008. Upon execution of this agreement, Metropolitan will proceed with the feasibility and design phases of the work. Pending CEQA review, staff will return to Metropolitan's Board at a later date to authorize an agreement with a vendor to fabricate, install, and operate the wellhead treatment system.

See [Attachment 1](#) for a location map.

Other Water Supply Projects

The fully reimbursable agreement discussed herein could serve as a template for service agreements with other agencies to accelerate delivery of other water supply projects. For projects proposed by other agencies, Metropolitan will consider the following: (1) water quantity to ensure that the project makes a meaningful addition to the regional water supply; (2) water quality to confirm that treated water will meet all water quality objectives; (3) delivered cost of water including treatment; (4) the inability of the agency to expedite project completion without Metropolitan's participation; (5) the availability of Metropolitan staff resources to expedite project completion; and (6) compliance of the project with all permitting and environmental requirements. Based on a favorable assessment, Metropolitan staff would request board authorization for reimbursable projects proposed by other agencies.

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

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA because it is not a final commitment to construction and installation, which will be subject to further CEQA review. The authorized action involves the creation of government funding mechanisms or other government fiscal activities that do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines). In addition, where it can be seen with certainty that there is no possibility that the proposed action in question may have a significant effect on the environment, the proposed action is not subject to CEQA (Section 15061(b)(3) of the State CEQA Guidelines). Also, the proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action consists of basic data collection and resource evaluation activities, which do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action that a public agency has not yet approved, adopted, or funded. Accordingly, the proposed action qualifies as a Class 6 Categorical Exemption (Section 15306 of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed action is not subject to the provisions of CEQA pursuant to Sections 15378(b)(4) and 15061(b)(3) of the State CEQA Guidelines and is exempt from CEQA pursuant to Section 15306 of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination and

- a. Authorize a reimbursable agreement with the Los Angeles Department of Water and Power in an amount not to exceed \$12 million; and
- b. Provide \$12 million in funding from the General Fund until reimbursed.

Fiscal Impact: Provide \$12 million in funding from the General Fund for costs incurred on reimbursable projects until reimbursed in accordance with provisions of the agreement with LADWP

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 to provide reimbursable services to LADWP.

Fiscal Impact: None

Business Analysis: This option will forgo an opportunity to reduce water demands on Metropolitan.

Staff Recommendation

Option #1


 _____ 11/19/2008
 James F. Green Date
 Manager, Water System Operations


 _____ 11/24/2008
 Jeffrey Kightlinger Date
 General Manager

Attachment 1 – LADWP’s Tujunga Well Field Location Map

BLA #6343

