

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

October 14, 2008 Board Meeting

9-3

Subject

Proposed reimbursable project for temporary wellhead treatment at the Tujunga Well Field

Description

This letter outlines a proposed reimbursable agreement with the Los Angeles Department of Water and Power (LADWP) to accelerate a groundwater treatment project and install temporary wellhead treatment. This project would 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.

The San Fernando Valley Groundwater Basin is a significant local water source for the city of Los Angeles. Groundwater contamination in the basin, however, 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 such as trichloroethylene (TCE), perchloroethylene (PCE), and other contaminants such as nitrate and perchlorate from historical agricultural or industrial production.

The LADWP's Tujunga Well Field is located in the San Fernando Basin near the intersection of Interstate I-5 and State Highway 170. The 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.

Though 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 a third well to be brought on-line through blending (a common practice in groundwater management), further improving the project yield up to 36,000 AF over two years.

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 late 2010, 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 have jointly identified a project delivery mechanism 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 July 2009. These deliveries will reduce demands for imported water and increase water supply reliability for LADWP. In this joint effort, Metropolitan would assist LADWP in the design, procurement, installation, and startup 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.

Proposed Scope and Key Terms

As proposed, Metropolitan's scope of work for this agreement includes program management, design, procurement, construction support, and miscellaneous water quality and technical support. The maximum amount of the proposed agreement is still under development, but ranges from \$8 million - \$10 million, depending on the number of adsorption vessels and the expected change-out frequency of the GAC. LADWP would reimburse all costs incurred by Metropolitan at Metropolitan's actual cost of labor, equipment, materials, and other services.

Under the proposed agreement, Metropolitan's obligations would 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 program 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.

Additionally, under the proposed agreement, LADWP's obligations would include:

1. Serve as the 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 needed to support the temporary system;
4. Be responsible for meeting drinking water quality standards of the delivered water; and
5. Operate the well field and distribution system to produce the maximum volume of water possible during the two-year period.

Upon completion of the two-year period, major components of the temporary treatment system would be incorporated into a permanent treatment system at the site.

Metropolitan and LADWP staff are refining the scope of their responsibilities and negotiating the terms of the proposed agreement. Metropolitan staff anticipates returning to the Board in November for authority to execute the reimbursable agreement with LADWP.

Policy

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

Fiscal Impact

None, as the project elements would be fully reimbursable to Metropolitan.


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10/8/2008

Date


Jeffrey Kightlinger
General Manager

10/8/2008

Date

BLA #6314