

# Agenda Report

December 5, 2005

**To:** City Council

**From:** City Manager

**Subject:** Authorize the City Manager to Enter into the Monk Hill Treatment System Agreement with the California Institute of Technology for the Treatment of Contaminated Groundwater in the Arroyo Seco Area

## Recommendation

Subject to resolution of the City's claim under the Federal Tort Claims Act, it is recommended that the City Council authorize the City Manager to enter into an agreement with the California Institute of Technology (Caltech) for reimbursement of costs associated with the Monk Hill Treatment System for the removal of perchlorate and volatile organic compounds (VOCs) from contaminated groundwater in City-owned wells in the Arroyo Seco area.

## Background

The Jet Propulsion Laboratory (JPL), a division of Caltech, is a research and development facility in Pasadena. The City has four groundwater wells, known as the Monk Hill Wells, in the proximity of JPL. The wells are contaminated with VOCs including trichloroethylene, tetrachloroethylene, carbon tetrachloride, and 1,2-dichloroethylene at concentrations which have exceeded the maximum contaminant levels permissible under state law for drinking water. In February 1990, Caltech and the City entered into the Devil's Gate Temporary Groundwater Treatment Plant Participation and Settlement Agreement (Contract Number 14,061), which provided the City funding to construct and operate a VOC treatment plant. Contract Number 14,061 has been amended numerous times to continue providing the City with necessary funding.

In July 1997, the California Department of Health Services (DHS) advised water agencies to test their groundwater for perchlorate. Perchlorate was used at JPL as an oxidizing agent in solid propellant systems and disposed of in earthen pits, which were a standard practice in the 1950s and 1960s. The perchlorate was detected in all four wells at various levels.

Arroyo Well had the highest level and could not be operated safely below the then DHS's Action Level. The remaining three wells continued operating under a DHS approved blending program. In January 2002, the Action Level was lowered from 18 micrograms per liter or parts per billion (ppb) to 4.0 ppb. As a result, Pasadena Water and Power could no longer operate the three wells safely below the Action Level. Since July 1, 1997, the City has incurred higher costs of operations to compensate the lack of pumping capacity from the affected wells. Currently, DHS has not issued a maximum contaminant level for perchlorate and the current Notification Level (formerly the Action Level) has been revised upward to 6.0 ppb.

In December 2002, staff began negotiating on a settlement agreement with Caltech and the National Aeronautics and Space Administration (NASA), which is the owner of JPL and managed by Caltech. After numerous discussions, staff and Caltech have mutually agreed to the terms of the Monk Hill Treatment System Agreement (MHTS Agreement), and both parties wish to move forward with entering into the contract. On October 28, 2005, Caltech presented the MHTS Agreement to its Board of Trustees for approval. The Board agreed to the terms of the Agreement and authorized Caltech to enter into the contract.

### **Terms of the MHTS Agreement**

The following is a summary of the key terms of the MHTS Agreement.

1. NASA will fund the City's rehabilitation of the Monk Hill Wells. The estimated value of this work is approximately \$2.0 million.
2. Caltech will reimburse the City for technical consultants, staff time, material, and contractors to design and install the treatment facilities, including regulatory permit requirements and site mitigation. This is a one-time cost estimated between \$2.4 million to \$2.9 million.
3. Caltech will reimburse the City for the City's lease of a VOC and perchlorate treatment facilities, which will cost approximately \$700,000 to \$900,000 per year.
4. Caltech will reimburse the City for operating and maintaining the treatment facilities, including material and electricity costs. The estimated costs are \$1.6 million to \$2.0 million per year.
5. Caltech will pay the City a pumping fee of \$80 per acre-foot for a total not-to-exceed \$400,000 per year for the first 6-years of plant operations. Thereafter, the pumping fee will reduce to \$40 per acre-foot for a total not-to-exceed \$200,000 per year. The City must use Best Efforts to pump and treat 5,000 acre-feet per year from the Monk Hill Wells. Caltech may request the City to pump more than 5,000 acre-feet in any year. If the City honors this request, Caltech will pay the City \$80 per acre-feet.
6. The City will control the design, installation, and operation of the treatment facilities.
7. The treatment facilities will treat groundwater to the standards set forth in the City's drinking water permit issued by the California Department of Health Services.
8. Caltech will reimburse the City's annual cost for plant lease fees, operation and maintenance, and pumping fees for a total not-to-exceed \$3.5 million per year. Caltech must approve all change orders that exceed the prior year's cost by more than 20 percent. All Caltech payments to the City are contingent on the availability of U.S. Government funding through Caltech's contract with NASA.
9. The City releases Caltech and the U.S. Government from liability for perchlorate provided the Agreement is fully performed.

Staff believes that the terms of the MHTS Agreement serve the City's best interest. The Agreement provides the necessary funds to construct and operate a groundwater treatment facility that will restore pumping at the four Monk Hill Wells, which have been off-line for nearly four years. Also, the ability for the Water Division to reactivate the Monk Hill Wells is a cost savings to the rate payers because of the lower cost to operate the higher elevated water system, it maximizes the City's local groundwater resources, and it relieves excessive wear and tear at other City-owned wells currently compensating for the lost pumping capacity.

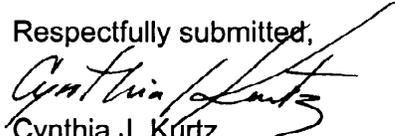
Currently staff is collaborating with Caltech and NASA with preserving the City's right regarding the City's claim under the Federal Tort Claims Act. Staff requests that the City Council authorize the City Manager to execute the MHTS Agreement contingent upon this issue being resolved. In the event staff cannot resolve this issue with Caltech and NASA, it may be necessary to return to City Council for further action.

The MHTS Agreement secures a source of funding for the City to proceed with a water treatment project. Following approval of the Agreement, various state and City approvals must be obtained in order to carry out the project, including a Conditional Use Permit to allow establishment of the facility, contract award for procuring treatment equipment based upon a request-for-proposal, and a drinking water permit from the California Department of Health Services. Compliance with the requirements of the California Environmental Quality Act is a necessary prerequisite for each of these discretionary approvals. While the City is undertaking these steps, NASA must comply with the requirements of the Comprehensive Environmental Response, Compensation and Liability Act to prepare a proposed Record of Decision for public comment and evaluation as a prerequisite to finalizing the appropriate treatment and remedial action for the groundwater cleanup. Staff expects to commence operation of the treatment facility in mid-2007.

#### **Fiscal Impact**

Sufficient funds are provided for in the Water Division's Fiscal Year 2006 Capital Improvement Program Budget, Account 1063, and Project 02557. Caltech will reimburse the City in full for all costs associated with the construction and operation of the Monk Hill Treatment System.

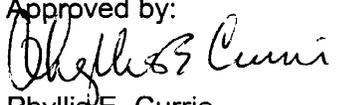
Respectfully submitted,

  
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