



DATE: February 21, 2007

TO: Honorable Mayor and City Councilmembers

FROM: Water Utilities Department

SUBJECT: **APPROVAL OF PLANS AND SPECIFICATIONS FOR THE LEASE OF A GRANULAR ACTIVATED CARBON SYSTEM FOR TCP REMOVAL AT THE MISSION BASIN GROUNDWATER PURIFICATION FACILITY**

SYNOPSIS

Staff and the Utilities Commission recommend that the City Council approve the plans and specifications in order to solicit bids for the lease of Granular Activated Carbon (GAC) equipment for 1,2,3-Trichloropropane (TCP) removal at the Mission Basin Groundwater Purification Facility, and authorize the Public Works Director to call for bids.

BACKGROUND

McGuire Malcolm Pirnie Environmental Consultants, Inc. (McGuire) conducted a pilot study at the Mission Basin Groundwater Purification Facility that resulted in identifying a treatment technology to remove TCP from the source wells. The pilot testing was successful and McGuire prepared an Engineer's Report and submitted this to the California Department of Health Services (CDHS). CDHS sent a letter to the City for "temporary approval" until the operation of the GAC contactors pilot study is complete and the City is in the permit approval process.

CDHS regulations required monitoring for (TCP) in 2003 as part of the California Unregulated Contaminant Rule. It was first detected in early 2003 in wells 1, 2, and 3, which are located at the Mission Basin Groundwater Purification Facility. Subsequent sampling confirmed the presence of the contaminant. Wells 4 and 5, which are located on the north side of the San Luis Rey River near College Boulevard, had no TCP detected.

TCP was formulated with dichloropropanes in the manufacture of a soil fumigant, D-D. Historically, the Mission Basin was a major agricultural area for tomatoes, corn and strawberries, so most likely the soil fumigant D-D was the source of the contaminant. TCP is also used as a solvent and extractive agent. As a solvent, it has commonly been used as a paint and varnish remover, a cleaning and degreasing agent and a cleaning and maintenance solvent.

The use of wells 1, 2, and 3 was discontinued while staff researched methods to remove TCP. During this period there was no threat to public safety. The facility is currently running at a reduced volume using wells 4 and 5, although through the efforts of City staff, production of the plant is slightly less than 3 million gallons per day (MGD). Before shutting down wells 1, 2, and 3, the flow was just above 3 MGD.

ANALYSIS

Since the City has received temporary approval for the GAC Contactors from CDHS, it is recommended to lease the equipment and treat the TCP in order to utilize the available well water.

Trichloropropane contamination of the three existing wells and one new well at the Mission Basin Groundwater Purification Facility is prohibiting the plant from running at full capacity. All four wells exceed the notification level set by CDHS and are not in use at this time. Knowledge of this contaminant is relatively new and the long-term effects are not known, but it is recognized as a carcinogen. As water demands increase, it is essential that the facility produce maximum capacity as soon as possible.

The Mission Basin Groundwater Purification Facility must also produce 6.3 MGD to comply with the City's groundwater recovery agreement with the Metropolitan Water District. To assist in ensuring that the facility can operate at full capacity, the San Diego County Water Authority is working with the Water Utilities Department to complete two additional wells: wells 10 and 11. These new wells, along with the existing wells, will provide enough water to produce 6.3 MGD when the TCP removal system is installed. All of these wells are essential for keeping the plant in operation while other wells are undergoing maintenance and repair. It is also important to have the plant produce as much potable water as possible because the City saves money by having this local resource.

FISCAL IMPACT

In Fiscal Year 2006-2007, Council approved an appropriation of \$4,270,709 (712.857426 - \$1,174,514 and 715.857425 - \$3,546,195) to carry forward for the Mission Basin Groundwater Purification Facility Expansion Project. The engineer's estimate to lease the equipment for three years and construct the ancillary facilities for the project is \$2,064,000. The cost per year for leasing the equipment is \$480,000. Therefore, adequate funds are available for the project.

CITY ATTORNEY'S ANALYSIS

The referenced documents have been reviewed by the City Attorney and approved as to form.

INSURANCE REQUIREMENTS

The City's standard insurance requirements will be met.

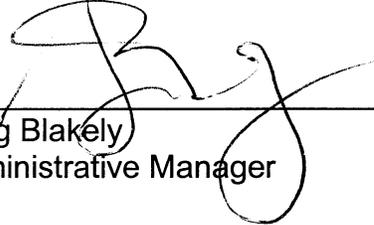
COMMISSION OR COMMITTEE REPORT

The Utilities Commission approved staffs recommendation at its regular meeting on January 16, 2007.

RECOMMENDATIONS

Staff and the Utilities Commission recommend that the City Council approve the plans and specifications in order to solicit bids for the lease of Granular Activated Carbon (GAC) equipment for 1,2,3-Trichloropropane (TCP) removal at the Mission Basin Groundwater Purification Facility, and authorize the Public Works Director to call for bids.

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