

WEST BASIN MUNICIPAL WATER DISTRICT

NOVEMBER 16, 2006 – Water Resources
 Little, Kwan
NOVEMBER 27, 2006 – Board Meeting
 Prepared by: Wyatt Won
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 Approved by: Rich Nagel

ACTION CALENDAR

WATER RECYCLING PLANT STAFFING

SUMMARY:

West Basin Municipal Water District (District) contracts with United Water Services (UWS) to operate and maintain the water recycling plant in El Segundo as well as the satellite facilities in Torrance, El Segundo, and Carson. Operations are very intricate with facilities spread over four sites producing five different major qualities of recycled water. With the completion of the Phase IV Expansion, the District will have 56.8 mgd of treatment capacity at the main plant in El Segundo. The District will have a combined total of 76 million gallons per day (mgd) of treatment capacity, including the satellite facilities. The types of processes included in the 76 mgd are varied and adds to the complexity of operations. The following processes are included in the District wide total capacity of 76 mgd:

- The District has 25 mgd of reverse osmosis (RO) capacity spread over three sites. This includes 12.5 mgd of softened and disinfected RO quality water as well as 1.7 mgd of double pass RO water;
- It has 40 mgd of Title 22 quality water capacity at the main plant that includes high-rate clarifiers and mono-media filters. The Title 22 process is very similar to a conventional drinking water process; and
- It has 11 mgd of nitrification capacity spread over three sites. The nitrification process is a biological process where organisms are grown that convert the ammonia in the recycled water to nitrites and nitrates.

UWS currently has a staff of 44 to operate and maintain all the facilities, to assist with research and development projects, capital improvements, and with plant tours. Moving forward, it is anticipated that additional plant staff will be needed to operate and maintain the facilities mainly due to additional processes coming on-line. Staff believes that two new operations and maintenance positions at the water recycling facilities are justified based on the following:

- There will be two new high-rate clarifiers upstream of the Title 22 filters and two new high-rate clarifiers as part of the solids handling process when the Phase IV Expansion is complete. Our start-up experience has shown that these clarifiers will take operator and maintenance attention to make sure that the mixers, scrapers, chemical equipment, and sludge pumps are all operating properly and sludge blanket is at the appropriate level;
- Phase IV will increase microfiltration (MF) capacity by 65% (11.5 mgd) and RO capacity by 25% (5 mgd). These membrane processes will have to be monitored closely because they will be treating secondary effluent from Hyperion; and
- Phase IV will also add hydrogen peroxide and ultra-violet oxidation processes to the Barrier Treatment Train that will require more operator and maintenance attention to make sure the chemical equipment and ultra-violet equipment are operating properly.

The estimated cost for adding two additional staff positions at the water recycling facilities under UW's contract for the remainder of this fiscal year would be \$175,000.

FISCAL IMPACTS:

The Fiscal Year 2006-07 Operations Budget would have to be increased by \$175,000 to accommodate the additional staff. Funds would come from the Operating Designated Fund.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Water Resources Committee on November 16, 2006 and recommended for approval at the November 27, 2006 Board meeting.

RECOMMENDED MOTION:

That the Board authorizes the General Manager to increase United Water Services staff by two positions in an amount not-to-exceed \$175,000 through June 30, 2007.

LIST OF EXHIBITS:

None.

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