

ACTION CALENDAR

CHEVRON REVERSE OSMOSIS MEMBRANE REPLACEMENTS

SUMMARY:

West Basin Municipal Water District (District) provides high-quality recycled water to the Chevron Refinery in El Segundo. The District provides high-purity recycled water to the low-pressure boilers that has gone through microfiltration (MF) followed by reverse osmosis (RO). The District also provides ultra-high-purity water to the high-pressure boilers that goes through MF/RO followed by a second pass RO process. Both first pass and second pass RO Trains were installed about five years ago. The second pass membranes (Trains 6, 7, and 8) are performing adequately and do not need to be replaced at this time. However the first pass membranes (Trains 4 and 5) are showing signs of irreversible fouling and need to be replaced. Although the water still meets Chevron’s water quality requirements, the membranes are operating at higher pressures, typically recovering to only around 200 pounds per square inch (psi) after cleaning compared to start-up pressures around 150 psi. Pressures just prior to cleaning are around 290 psi. The higher pressures caused by fouling also negatively impact the Train capacity and time between cleanings.

Staff issued a request for bids to qualified suppliers for 1,022 membrane elements. Only one bid was received. The other qualified firm, Koch Membrane Systems, declined to bid because they could not meet the production schedule. The results of the bid are summarized in the following table.

Firm	Bid Amount
Hydranautics	\$465,756

The bid price is equivalent to \$455.73 per element, which is about four percent higher than the previous membrane bid for the Carson plant in January. Staff believes this is reasonable given the membranes specified for Trains 4 and 5 are “premium” membranes that are required to have slightly higher salt rejection than “normal” membranes. Staff recommends awarding the bid to Hydranautics.

FISCAL IMPACTS:

Funds are included in the facilities replacement fund.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item will be reviewed by the Water Resources Committee on September 14, 2006. There will not be a Committee recommendation due to the Board packets being distributed prior to the Committee meeting.

RECOMMENDED MOTION:

That the Board authorizes the General Manager to enter into an agreement with Hydranautics to provide 1,022 elements and appurtenances for \$465,756 plus ten percent for contingencies for a total not-to-exceed contract amount of \$512,330.

LIST OF EXHIBITS:

None.