

**Metropolitan Domestic Water Improvement District
Board of Directors Meeting**

June 9, 2014

Approval of Bids for GAC Replacement at South Shannon

Synopsis

The Board of Directors is requested to approve the bids submitted for the replacement of the Granular Activated Carbon (GAC) at the South Shannon facility.

Background

The District in conjunction with the Arizona Department of Environmental Quality (ADEQ) constructed a Granular Activated Carbon (GAC) treatment system at South Shannon to remove VOCs from the groundwater. Prior to the GAC system, the District used aeration to remove the VOCs. The aeration system would blow air into the water causing the VOCs to be carried away with the air bubbles releasing the VOCs to the atmosphere; however, the size of the aeration system did not allow the full flow of the well to be treated. In order to continue to treat the entire flow and attempt to contain the VOC plume additional treatment was needed. ADEQ selected the GAC system as their preferred treatment system.

The GAC system is composed of two vessels, each containing 20,000 pounds of burnt coconut shell GAC. The GAC system is configured in a series in which the well pushes water first through lead vessel and then through the lag vessel. As the water flows through the bed, the VOCs attach to the GAC. The GAC in the lead vessel absorbs as much of the VOCs as it can before breakthrough occurs. Breakthrough is when the GAC can no longer absorb the VOCs and they pass through the bed as if no treatment was in place. When breakthrough of a regulated contaminant occurs between the lead and lag vessel, the GAC in the lead vessel is scheduled for change out.

The system was designed in series to allow the lag vessel to continue treatment while the lead vessel is having the GAC replaced. Once the GAC is replaced the vessel with the older GAC will become the lead and the vessel with the new GAC will become the lag.

Issues

Based on previous change out history, it is anticipated that there will be three to four carbon change outs during Fiscal Year 2015; however, the number of change outs will vary depending on the gallons of water treated and the VOC levels in the raw water. In order to expedite the process without having the system shut down for extended periods of time, the District requested

sealed bids that would be valid from July 1, 2014 thru June 30, 2015.

Request for Proposals (RFP) were sent to vendors who had expressed interest or submitted proposals in the past. A public notice was also placed in the Daily Territorial on May 5, 2014 and ran for four consecutive publications. Four bid packages were sent out and three were received on May 5, 2014.

Carbon Activated Corporations was the only bidder that was compliant with the bid requirements. Carbon Activated Corporation was also the lowest bidder of all the bids submitted. Cabot Norit Activated Carbon's product did not meet the bid specifications. Calgon Carbon provided two proposals for two different GAC products that would both be acceptable; however, did not comply with the bid specifications in including taxes and equipment needed to perform the GAC change out.

The District has worked with Carbon Activated Corporation for the past two years performing the District's GAC change outs. Their work and product have been satisfactory. Staff has no reservations about continuing to work with them.

The costs for the carbon change outs are to be reimbursed by ADEQ.

Recommendation

It is recommended that the Board of Directors approve bid submitted by Carbon Activated Corporation and direct staff to pursue the Job Order Agreement with them. It is also recommended that the Board authorize the General Manager to sign the Job Order Agreement and to approve each purchase order for the carbon change outs as needed.

Suggested Motion

I move to approve the bid submitted by Carbon Activated Corporation and direct staff to pursue the Job Order Agreement with them. It is also recommended that the Board authorize the General Manager to sign the Job Order Agreement and to approve each purchase order for the carbon change outs as needed.

Respectfully submitted,

I concur with the above recommendation.

Respectfully submitted,

Steven D. Shepard
Utility Superintendent

Joseph Olsen, P.E.
General Manager