

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

June 10, 2019

**Award of Contract for Northwest Recharge, Recovery, and Delivery System
Exploration Drilling and Testing**

Synopsis

The Board of Directors is requested to authorize the General Manager to execute an agreement for Northwest Recharge, Recovery, and Delivery System (NWRDRS) Exploration Drilling and Testing to a City of Tucson Job Order Contractor, Yellow Jacket Drilling Services, in an amount not to exceed \$391,832.

Background

Exploration drilling and testing are necessary to assess the viability of the anticipated NWRDRS source aquifer. Two exploratory test wells will be drilled on two of the State Land well sites within the District's easement.

Due to the considerable production demand placed on the recovery system, it is important to understand vertical changes in anticipated yield and water quality in the NWRDRS source aquifer. To meet this goal, the drilling contractor will subcontract a geophysical logging company. Finally, the drilling contractor will provide up to four zonal, depth-specific, water quality samples and hydraulic tests per borehole. Additionally, drilling exploration test wells will produce design data for the recovery wells. The recovery wells will have fixed designs that will allow the drilling contractor to pre-order materials before constructing the wells, saving the District extended standby time costs.

In addition to geologic sampling of the aquifer materials, the NWRDRS exploration drilling includes completing the boreholes as monitor wells for aquifer production testing and water quality testing. Funding for this project is contained in the Fiscal Year 2020 budget within the Capital Improvement Program.

In June 2019, the Partners executed an amendment to the Memorandum of Agreement (MOA) 19003 to authorize the District, as Operating Agent, to proceed with these tasks associated with the exploratory wells.

The District has a Cooperative Purchasing Agreement with the City of Tucson's Department of Procurement.

There are two qualified contractors on the City's Job Order Contract (JOC) for Well Drilling. The District's Miscellaneous Water Resources Consultant, Clear Creek Associates, prepared specifications for this project as instructions for the contractors. The District solicited quotes from the two qualified drilling contractors on the JOC, Yellow Jack Drilling Services and Layne Christensen, on May 7, 2019.

Issues

Quotes for the JOC were received at the District office on May 24, 2019. After corrections for arithmetic errors and excluding stand-by time and one of the geophysical suites, the quote totals from the two contractors are as follows:

Layne Christensen Company	\$511,071
Yellow Jacket Drilling Services LLC	\$419,396

The low bidder is Yellow Jacket Drilling Services. Yellow Jacket recently successfully completed exploration drilling at the Oracle Jaynes Station well site.

Deliverables include hydrogeologic information such as geologic data, geophysical logs, water quality samples, aquifer data, and monitor/test wells that will indicate whether the recovery well sites are anticipated to meet NWRRDS goals.

Since Yellow Jacket's quote is greater than the engineer's estimate for this task, the exploration scope was adjusted slightly. The request for quotations included five zonal, depth-specific, water quality samples and hydraulic tests for each of the two boreholes. Staff believe that because this exploration project does not include very deep drilling (700-feet total depth each), four zonal samples in each borehole should be sufficient to delineate water quality and anticipated productivity at different depths in the NWRRDS source aquifer. Therefore, if one zonal sample is omitted from each borehole, Yellow Jacket's quote would be \$391,832. The quote is \$5,918 or 1.5% over the engineer's estimate of \$385,914. One-half of this cost will be reimbursed by Oro Valley.

Recommendation

It is recommended that the Board of Directors authorize the General Manager to execute an agreement with Job Order Contractor, Yellow Jacket Drilling Services, through the Cooperative Purchasing Agreement with the City of Tucson to provide exploration drilling and testing for an amount not to exceed \$391,832.

It is also recommended that the General Manager be granted authority to approve the following changes to the construction contract: 1) allocate additional funding in a cumulative amount not to exceed \$25,000 and 2) increase the original construction contract term in a cumulative amount not

to exceed 60 calendar days. Any changes in excess of the above limits will be submitted to the Board of Directors for approval.

Suggested Motion

I move to authorize the General Manager to execute an agreement with Yellow Jacket Drilling Services for an amount not to exceed \$391,832 for NWRDRS exploration drilling and testing and to grant the General Manager authority to approve the following changes to the construction contract: to allocate additional funding in a cumulative amount not to exceed \$25,000 and to increase the original construction contract term in a cumulative amount not to exceed 60 calendar days.

Respectfully submitted,

Wally Wilson
Water Resources Manager

I concur with the above-noted recommendation.

Respectfully submitted,

Joseph Olsen, P.E.
General Manager