

## STAFF REPORT

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**Date:** November 6, 2013

**To:** Mayor and City Council

**Thru:** Andrew Clinger, City Manager

**Subject:** **Staff Report (For Possible Action): Approval of Consultant Agreement between HDR Engineering, Inc. (HDR) and the City of Reno and Sparks for Engineering Services associated with the Truckee Meadows Water Reclamation Facility (TMWRF) Nitrification System Control Valve Replacements and Vault Construction in the amount of \$436,500, with Reno's share being \$299,569.95 (Sewer Enterprise Fund).**

**From:** Terri Svetich, Engineering Manager

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**Summary:** The Truckee Meadows Water Reclamation Facility (TMWRF) operates six nitrifying filters (NTFs) as part of the nitrogen removal process. All six NTFs must be operational for TMWRF to meet the discharge permit nitrogen limits mandated by the Nevada Division of Environmental Protection (NDEP). The aging infrastructure is making operations more difficult. The attached scope of work with HDR includes the design for the repair, replacement, and retrofit of control valves and monitoring facilities needed to properly operate nitrogen removal process. These improvements will help the reclamation facility continue to successfully and reliably meet required discharge requirements. Staff recommends Council approval of the consultant agreement with HDR in an amount not to exceed \$436,500 with Reno's share being \$299,569.95.

**Background:** The control valves for the NTFs must be operated at least twice per week as part of a snail mitigation treatment procedure critical to the operation and maintenance of the NTFs and TMWRF's operation. The filters can only be taken offline for 4 to 6 hours at a time. Most of the valves do not have motor actuation, and can be difficult or time consuming for staff to operate. Several of the control valves are presently direct buried and operational difficulties are being encountered. Some of the flow meters associated with the NTFs and nitrogen removal process do not currently operate or are not sending signals to TMWRF's operational control system. For the valves and meters which presently have vaults, most have inadequate clearances for maintenance if they do need to be evaluated or worked on.

**Discussion:** The scope of work includes and assessment of all NTF valves, meters, vaults and actuators for serviceability and maintenance access. All valves will be equipped with electric above ground motor actuators which will greatly reduce the staff time required in their opening and closing as a required operational protocol for the NTFs. The scope includes extensive potholing and confirmation of existing piping and controls which serve the NTFs and nitrogen removal process. Vaults will be designed to house and provide adequate maintenance clearances for all valves, meters, and actuators associated with operation of the NTFs. Due to the high

density of valve controls and meters proximal to the NTFs combining multiple valves and/or meters in a single structure may be recommended. HDR will work with City and TMWRF staff to determine priorities for construction phasing.

**Financial Implications:** The City of Reno will administer the agreement and will be reimbursed for a portion of the costs by the City of Sparks through the current cost sharing agreement for TMWRF operation and maintenance. The City of Reno and the City of Sparks share the cost of this project as follows: 68.63% for Reno and 31.37% for Sparks, as shown in Table 1. Costs for the City of Reno are budgeted in the Sewer Enterprise Fund. The project is included in the TMWRF Capital Improvement Plan approved by the Joint Coordinating Committee with \$1,000,000 budgeted in FY2014 and \$4,000,000 budgeted in FY2015.

**Table 1 – Cost Sharing Between Reno and Sparks**

<b>Total Cost of Contract</b>	<b>Reno Share</b>	<b>Sparks Share</b>
\$436,500.00	\$299,569.95	\$136,930.05
<b>Percentages</b>	68.63%	31.37%

**Recommendation:** Staff recommends Council approve the Agreement for Consultant Services with HDR for design and professional engineering services as described in the attached proposal in an amount not to exceed \$436,500 (Reno's share being \$299,569.95 from the Sewer Enterprise Fund) and authorize the Mayor to execute the attached Agreement.

**Proposed Motion:** I move to approve the staff recommendation.

**Attachments:**

- TMWRF NTF Valve Replacements - Contract, Scope & Fee Proposal (PDF)