STAFF REPORT

Date: **March 9, 2016**

To: **Mayor and City Council**

Thru: **Andrew Clinger, City Manager**

Subject: **Staff Report (For Possible Action): Approval of consulting services agreement between HDR Engineering, Inc. (HDR) and the City of Reno for Consulting Engineering Services for the Truckee Meadows Water Reclamation Facility (TMWRF) RAS-WAS System 1 Pumping Improvement Project in the amount of $499,412.00 with Reno's share being $342,746.46 (Sewer Enterprise Fund).**

From: **David Kershaw, Associate Civil Engineer**

Summary: The attached scope of work with HDR Engineering, Inc. will provide engineering design services for the Truckee Meadows Water Reclamation Facility (TMWRF) RAS-WAS System 1 Pumping Improvement Project. This rehabilitation effort will include final design for replacement of System 1 RAS pumps and piping, installation of flow meters and control infrastructure for even return of activated sludge to the aeration basins. The equipment to be replaced in this project is nearing the end of its useful life, and the improvements will provide key redundant system capacity resulting in increased system reliability. 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 $499,412.00 (Reno's share being $342,746.46 from the Sewer Enterprise Fund).

Previous Council Actions:

October 22, 2014: Council approved an Agreement for Consultant Services with HDR for design and professional engineering services in an amount not to exceed $138,689 (Reno's share being $95,182.26 from the Sewer Enterprise Fund).

Background: One of the key treatment processes at the Truckee Meadows Water Reclamation Facility (TMWRF) consists of providing the correct balance of raw sewage (nutrients), air and microorganisms in a mixed-liquor aeration basin to properly treat the raw sewage. This process consists of providing the appropriate habitat to allow microorganisms to consume the biodegradable organics in the raw sewage and then provide a means for settling out the microorganisms, and returning a portion of the microorganisms to the front of the process and dispose of the remaining. During the process the microorganisms quickly grow in mass and need to be removed from the process on a consistent basis to maintain a balance between the food source (sewage inflow), air and microorganism mass. Operation of this process requires the ability to monitor and control the flows of sewage, activated sludge (microorganisms) and air

into three different parallel treatment trains. Therefore, TMWRF must monitor and control the flow of sewage, activated sludge (microorganisms) and air into each of the treatment trains.

HDR was previously contracted to evaluate the existing activated sludge system, provide system capacity calculations, and provide recommendations for improvements that results in a fully redundant and reliable system.

Discussion: Based on the activated sludge system evaluation, and in concurrence with TMWRF staff review and input, key improvements in the system were identified as being needed to maintain system reliability and redundancy. The current design scope for System 1 will address the highest priority improvements with future project phases planned to address remaining improvement recommendations. This scope of work will provide final design for pumping, piping, and control improvements in TMWRF's System 1 Return Activated Sludge (RAS) and Waste Activated Sludge (WAS) management system. Future phases of this project would include similar improvements to TMWRF's System 2. The scope of work tasks, as detailed in the attached agreement, include development of construction plans, specifications and bid documents, opinion of probable construction costs, and bidding support services. HDR Engineering, Inc. was selected from the City's approved list of engineering consultants.

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 TMWRF Joint Coordinating Committee (JCC).

Table 1 – Cost Sharing Between Reno and Sparks

Total Cost of Contract	Reno Share	Sparks Share
$499,412.00	$342,746.46	$156,665.54
Percentages	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 $499,412.00 (Reno's share being $342,746.46 from the Sewer Enterprise Fund) and authorize the Mayor to execute the attached Agreement.

Proposed Motion: I move to approve the staff recommendation.

Attachments: