

STAFF REPORT

Date: August 10, 2022

To: Mayor and City Council

Thru: Doug Thornley, City Manager

Subject: Staff Report (For Possible Action): Approval of Agreement for Design Services with Stantec Consulting Services, Inc. (Stantec) for the Truckee Meadows Water Reclamation Facility (TMWRF) Gas Conditioning System Improvements Project in the amount of \$299,855 with Reno's share being \$205,790.49. (Sewer Fund)

From: Matt Smith

Department: Utility Services

Summary:

The gas conditioning system at TMWRF prepares biogas for use in boilers, sludge heaters, heating equipment, and the cogeneration system. TMWRF does not have a natural gas connection, and relies solely upon the gas from this system for the building's heating and hot water. The gas conditioning system also sends gas to the cogeneration engine, which generates nearly one megawatt of electricity as renewable energy, and saves more than \$315,000 per year in energy costs. This agreement with Stantec will provide design services for the TMWRF Gas Conditioning Systems Improvements Project. Staff recommends Council approve the agreement with Stantec as described in the attached scope of work in an amount not to exceed \$299,855 (Reno's share being \$205,790.49 from the Sewer Fund).

Alignment with Strategic Plan:

Fiscal Sustainability

Infrastructure, Climate Change, and Environmental Sustainability

Previous Council Action:

There is no recent Council action relevant to this item.

Background:

The TMWRF gas conditioning system was built in 2013. The system operates well when it is online, but there are some pieces of equipment that limit the reliability of the system.

Additionally, there is no redundancy within the gas conditioning system. If the system were to

fail, TMWRF would not be able to generate heat, supplemental electricity, or biogas at the plant. In 2021, Stantec completed a pre-design report documenting the deficiencies and proposed improvements to the gas conditioning system.

As part of the TMWRF Capital Improvement Program (CIP), a “Risk Ranking” of infrastructure identifies project priorities, condition, and risk of failure. A recent risk ranking exercise placed the gas conditioning system as number two – the second highest risk. This project is included in this fiscal year’s (FY23) CIP as also approved by the TMWRF Joint Coordinating Committee and the respective City Councils of Reno and Sparks through the budget process.

Discussion:

Redundancy is an industry standard in wastewater treatment. Without redundancy, treatment plants can experience large and unanticipated costs to fix equipment when a non-redundant system inevitably fails. The gas conditioning system has multiple single points of failure that have historically failed and caused high maintenance costs and safety concerns. Based on prior evaluation, it is recommended to perform design services to improve the operation, maintenance, and redundancy of the gas conditioning system at TMWRF. The improvements include redundant systems for cooling the gas so that the system does not shut itself down, bypass piping to keep the system operational during maintenance, and improvements to increase maintenance access and safety. This agreement with Stantec will provide design drawings to the 100% level, a cost estimate for the improvements, and assistance and support during the bidding process.

Financial Implications:

The City of Reno will administer the agreement and will be reimbursed by the City of Sparks through the current cost sharing agreement for TMWRF operations 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 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 Agreement	Reno Share	Sparks Share
\$299,855	\$205,790.49	\$94,064.51
Percentages	68.63%	31.37%

Legal Implications:

The parties are bound by the terms of the agreement as prepared by the Office of the City Attorney.

Recommendation:

Staff recommends Council approval of the agreement with Stantec for design services for the Truckee Meadows Water Reclamation Facility (TMWRF) Gas Conditioning System Improvements Project in an amount not to exceed \$299,855, with the City of Reno's portion being \$205,790.49 (Sewer Fund), and authorize the Mayor to sign.

Proposed Motion:

I move to approve staff recommendation.

Attachments:

Area & Vicinity Map Gas Conditioning System Improvements Design Project
Agreement with Stantec for TMWRF Biogas Conditioning System Design 2022