

STAFF REPORT

Date: October 23, 2024

To: Mayor and City Council

Through: Jackie Bryant, Interim City Manager

Subject: Staff Report (For Possible Action): Approval of an Amendment to the Agreement with University of Nevada, Reno for Investigation of Mobile Organic Biofilm Process at Pilot Scale and Modeling Simulations for the Truckee Meadows Water Reclamation Facility Mobile Organic Biofilm Pilot Project for an additional \$43,475 and to extend the expiration date, for a total agreement amount not to exceed \$193,087 with Reno's share being \$132,515.61. (Sewer Fund)

From: Matt Smith, Senior Civil Engineer

Department: Utility Services

Summary:

The attached amendment with the University of Nevada, Reno (UNR) will provide an additional 6 months of pilot assistance services, including targeted sampling services, uptake testing, and collection of raw sample data, for the Nuvoda, LLC (Nuvoda) Mobile Organic Biofilm (MOB) Pilot Project at the Truckee Meadows Water Reclamation Facility (TMWRF), to further evaluate system performance during cold weather. Both Reno and Sparks City Councils approved the MOB Pilot Project at the TMWRF in June 2023 to evaluate the efficacy of the MOB aerobic granular sludge (AGS) system for enhanced treatment at TMWRF. Staff recommends Council approve the Amendment to the Agreement with UNR for Investigation of Mobile Organic Biofilm Process at Pilot Scale and Modeling Simulations during the TMWRF MOB Pilot Project for an additional \$43,475 for a total agreement amount not to exceed \$193,087 (Reno's share being \$132,515.61 from the Sewer Fund).

Table 1: Consent Review

Consent Review	Yes	No
1. Is this item an annual or standard item that comes before Council for regular approval?		X
2. Is this item an agreement required based on an item previously approved by Council?	X	
3. Is this item included in the current budget approved and adopted by Council?	X	
Other Considerations		
What percent of the total City budget does this item represent?		0.02%

Alignment with Strategic Plan:

Fiscal Sustainability

Infrastructure, Climate Change, and Environmental Sustainability

Previous Council Action:

- June 7, 2023 – Council approved Staff Report: Approval of Consulting Agreement with Jacobs Engineering Group, Inc. for Consulting Services for the Truckee Meadows Water Reclamation Facility Mobile Organic Biofilm Pilot Project in the amount of \$197,246 with Reno’s share being \$135,369.93. (Sewer Fund)
- June 7, 2023 – Council approved Staff Report: Approval of Contract with Nuvoda, LLC for rental of pilot testing equipment and limited technical support for the Truckee Meadows Water Reclamation Facility Mobile Organic Biofilm Pilot Project in the amount of \$271,700 with Reno’s share being \$186,467.71. (Sewer Fund)
- June 7, 2023 – Council approved Staff Report: Approval of Agreement with University of Nevada, Reno for Investigation of Mobile Organic Biofilm Process at Pilot Scale and Modeling Simulations for the Truckee Meadows Water Reclamation Facility Mobile Organic Biofilm Pilot Project in the amount of \$149,612 with Reno’s share being \$102,678.72. (Sewer Fund)

Background:

The Cities of Reno and Sparks jointly own TMWRF, originally built in 1964. In 2020, Brown & Caldwell (B&C) prepared the TMWRF Facility Plan, which outlined future rehabilitation and expansion alternatives to meet TMWRF’s stringent discharge permit requirements. The Facility Plan recommended investigating changes to TMWRF’s current treatment process by switching to AGS.

Staff selected Nuvoda’s MOB technology for this pilot study due to its ability to be implemented in TMWRF’s existing tank infrastructure and high performance in recent pilot studies. Nuvoda’s MOB technology also has the potential to extract more treatment capacity out of TMWRF’s existing infrastructure, provide a more robust and sustainable nitrogen removal process, and decrease operation and maintenance (O&M) costs through less chemical and electrical power requirements.

Discussion:

The agreement with UNR included development of relevant sampling and data collection plans, targeted sampling services, conducting biokinetic parameter testing and other biologic analysis to identify microbial species and abundance. UNR also assisted the engineering consultant (Jacobs) with integrating the sample data into the process model and provide quality control review of the model simulations and outputs. The MOB process has been providing positive results in both treatment capacity and process resiliency since the pilot has been operating. This amendment will extend the MOB Pilot Study through the winter months to June 2025 to further evaluate the MOB system’s performance through the colder weather.

Also on today’s agenda for Council consideration as separate, but related items, are the Nuvoda, LLC Contract Amendment for Pilot Testing Equipment Rental and the Jacobs Engineering Group, Inc. Agreement Amendment for Pilot Assistance Services.

Financial Implications:

This project is approved in the City Council FY25 CIP and respective TMWRF Joint Coordinating Committee annual budget with available Sewer Funds. This agreement amendment would cost an additional \$43,475 and bring the total agreement budget to \$193,087. The City of Reno will continue to administer the agreement and the City of Sparks will be reimburse a portion of the costs 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.

Table 2: Cost Sharing Between Reno and Sparks

Agreement	Fees	Reno Share	Sparks Share
UNR Original Agreement (Council Approved 6/7/23)	\$149,612	\$102,678.72	\$46,933.28
Amendment #1 (Today’s Council Item)	\$43,475	\$29,836.89	\$13,638.11
Total	\$193,087	\$132,515.61	\$60,571.39
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 Amendment to the Agreement with UNR to extend Investigation of Mobile Organic Biofilm Process at Pilot Scale and Modeling Simulations during the TMWRF MOB Pilot Project for an additional \$43,475 and to extend the agreement

expiration date, for a total agreement amount not to exceed \$193,087 (Reno's share being \$132,515.61 from the Sewer Fund), and authorize the Mayor to sign.

Proposed Motion:

I move to approve the staff recommendation.

Attachments:

- Area & Vicinity Map for TMWRF Mobile Organic Biofilm Pilot Project
- Amended Agreement with University of Nevada, Reno for Investigation of MOB Process at Pilot Scale