



# WASHOE COUNTY

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## STAFF REPORT

**BOARD MEETING DATE: April 13, 2021**

**DATE:** March 8, 2021

**TO:** Board of County Commissioners

**FROM:** Robert Wimer, P.E., Licensed Engineer  
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**THROUGH:** Dwayne Smith, P.E., Division Director, Engineering and Capital Projects  
Community Services Department, 328-2043, [desmith@washoecounty.us](mailto:desmith@washoecounty.us)

**SUBJECT:** Recommendation to approve a cash disbursement from the Washoe County Sanitary Sewer Utility Fund 566 (Utility) to the Truckee Meadows Water Authority (TMWA), in the amount of \$150,000, to reimburse TMWA for the Utility's proportional share of the Bedell Flat Artificial Groundwater Recharge and Recovery Investigation study and engineering assessment. (Commission District 5.)

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### **SUMMARY**

Washoe County Community Services Department (CSD) Utility Group and the Truckee Meadows Water Authority (TMWA), in collaboration with the other regional utility groups, continue to actively identify areas throughout the County that may be suitable for the long-term management of highly treated effluent (Class A+) through such programs as aquifer injection, storage and recovery. These long-term programs allow for the continued management of highly treated effluent to improve water utilization efficiency and operating flexibility during drought periods as well as diversifying our regions water portfolio. The Bedell Flat Hydrographic Basin (094) was identified as a study area due to many factors including its location and potential underground storage area and volume.

To study this possible opportunity, the TMWA initiated an engineering study to analyze and determine the efficacy of injecting highly treated effluent into certain portions of the hydrobasins in the Bedell Flat area for an aquifer recharge and recovery project. The Utility anticipated participating in this work and programed \$150,000 into our annual FY19 Capital Improvement Projects (CIP) program. While no formal agreement was developed between the TMWA and the other agencies including the Utility for this investigation, these investigation efforts are necessary and the Utility rate payers expect the highest value, lowest cost alternatives to be identified through appropriate analysis and investigations. While this particular investigation ultimately determined that, due to the complex subsurface geology and presences of impermeable clay layers, the area is not suitable for artificial groundwater recharge and recovery, the Utility, TMWA and the other regional utility providers continue to identify and determine the suitability of other areas in the regional for long-term effluent management.

Washoe County Strategic Objective supported by this item: Stewardship of our community.

**AGENDA ITEM # \_\_\_\_\_**

### **PREVIOUS ACTION**

There has been no previous action regarding this item.

### **BACKGROUND**

A regional team consisting of several area utilities is jointly investigating opportunities for artificial groundwater recharge and recovery using highly treated Class A+ effluent. These opportunities are focused on identifying opportunities that offers significant water resource management benefits for the Truckee Meadows region, including improving water utilization efficiency, providing operating flexibility during periods of water scarcity, and diversifying the region's water supply portfolio. The regional team includes: City of Reno, City of Sparks, TMWA, Northern Nevada Water Planning Commission (NNWPC), Western Regional Water Commission (WRWC), University of Nevada, Reno (UNR), and Washoe County.

Led by the TMWA, an evaluation was performed to study the feasibility of injecting highly treated effluent into the ground at Bedell Flat. This study included examining the soil to determine infiltration rates at the proposed location. Groundwater modeling results using parameters representative of the Bedell Flat aquifer system were not favorable for a large-scale recharge project. Model results were unfavorable because they indicated the basin cannot adequately transmit and store an additional 2.0 MGD of water without creating undesirable shallow groundwater conditions across large areas in Bedell Flat.

Prior to the study, the Washoe County Utility group programed \$150,000 in the FY19 CIP program to participate in the necessary investigation and this action will disburse this amount to the TMWA for the work performed. TMWA's reported total cost for this investigation including permitting, field work, and analysis was \$823,463.03.

### **FISCAL IMPACT**

There are sufficient funds and budget authority in FY21 in the Utilities Fund (566), Non-Operating/R&R Construction Sewer (664950), Payments to Other Agencies (710400). Revenues in support of the project are provided from sewer rate fees.

### **RECOMMENDATION**

It is recommended the Board of County Commissioners approve a cash disbursement from the Washoe County Sanitary Sewer Utility Fund 566 (Utility) to the Truckee Meadows Water Authority (TMWA), in the amount of \$150,000, to reimburse TMWA for the Utility's proportional share of the Bedell Flat Artificial Groundwater Recharge and Recovery Investigation study and engineering assessment.

### **POSSIBLE MOTION**

Should the Board agree with staff's recommendation, a possible motion would be: "Move to approve a cash disbursement from the Washoe County Sanitary Sewer Utility Fund 566 (Utility) to the Truckee Meadows Water Authority (TMWA), in the amount of \$150,000, to reimburse TMWA for the Utility's proportional share of the Bedell Flat Artificial Groundwater Recharge and Recovery Investigation study and engineering assessment."