



# WASHOE COUNTY

Integrity Communication Service

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## STAFF REPORT

BOARD MEETING DATE: August 31, 2020

**DATE:** July 16, 2020

**TO:** Board of County Commissioners

**FROM:** Alan Jones, P.E., Senior 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 an Agreement for Professional Consulting Services between Washoe County and Jacobs Engineering Group, retroactive to August 28, 2020 through December 31, 2024, to provide final design engineering services for the South Truckee Meadows Water Reclamation 2020 Facility Expansion Project within the South Truckee Meadows Water Reclamation Facility service territory [\$12,004,520]. (Commission District 2.)

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### SUMMARY

Over the last three years the Community Services Department (CSD) Utility Division has developed an implementation process for the expansion of the South Truckee Meadows Water Reclamation Facility (STMWRF). Work began with facility planning in 2016 to identify the future capacity needs and to validate the scope of expansion. These early efforts identified treatment alternatives and facility improvements to address new capacity needs and identified a funding strategy for the necessary expansion work. The preliminary engineering and feasibility work was completed and it is necessary to proceed with the final design for the STMWRF Expansion Project (Project). Staff is requesting approval of a professional services agreement with Jacobs Engineering Group (Jacobs) to provide the required final design engineering services for the Project.

The Project will increase the treatment capacity of STMWRF from 4.1 million gallons per day to 6.2 million gallons per day and will include a new treatment process with an associated new headworks and odor control facility as well as expansion of both solids digestion and dewatering capabilities. The Project will also improve reclaimed water quality and necessary pumping improvements. In addition to expansion of the facility, the new design will focus on efficiency of equipment and process and on redundancy and resiliency to ensure continued compliance with State of Nevada permitting and customer expectations for the safe and ongoing treatment and management of waste water in the South Truckee Meadows.

The final design work will expand on the work completed for the preliminary work and includes construction services in support of the field work. Specifically this design work will include the following tasks:

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

<b>Task</b>	<b>Description</b>	<b>Budget</b>
Task 1	Project Management and Meetings	\$ 810,004
Task 2	Site Investigations	\$ 101,794
Task 3	Basis of Design	\$ 227,758
Task 4	Detailed Design	\$ 6,491,000
Task 5	CMAR Coordination	\$ 216,833
Task 6	SCADA System Modifications	\$ 61,075
Task 7	Permits and Public Outreach Support	\$ 222,340
<b>DESIGN PHASE SERVICES SUBTOTAL:</b>		<b>\$ 8,130,804</b>
Task 8	Additional Engineering Services	\$ 3,873,716
<b>GRAND TOTAL:</b>		<b>\$ 12,004,520</b>

To support this effort, in 2018, staff conducted a qualifications-based selection process for an engineering consultant team to conduct this work. Jacobs, a consulting firm with extensive wastewater treatment facility engineering expertise, was ranked highest amongst several other highly qualified regional engineering firms.

Washoe County Strategic Objective supported by this item: Safe, secure and healthy communities.

### **PREVIOUS ACTION**

On May 19, 2020, the Board approved the Capital Improvements Plan for Fiscal Years 2021-2025.

On April 21, 2020, the Board adopted an ordinance authorizing the issuance by Washoe County, Nevada of its General Obligation (Limited Tax) Sewer Bond (Additionally Secured by Pledged Revenues) Series 2020 in the maximum principal amount of [\$27,000,000] for the purpose of financing sewerage projects for the County.

On June 11, 2019, the Board approved an Agreement for Professional Consulting Services between Washoe County and Jacobs Engineering Group, commencing June 11, 2019 through August 31, 2020, to provide Phase 1 design engineering services for the South Truckee Meadows Water Reclamation 2020 Facility Expansion Project within the South Truckee Meadows Water Reclamation Facility service territory [\$1,530,922]. (Commission District 2.)

On May 21, 2019, the Board approved the Capital Improvements Plan for Fiscal Years 2020-2024.

On February 12, 2019, the Board approved an Agreement for Professional Consulting Services for the Washoe County South Truckee Meadows Wastewater 2020 Expansion Project Owner's Representative Services between Washoe County and HDR Engineering [in the amount of \$375,244].

On October 24, 2017, the Board approved an Agreement for Consulting Engineering Services between Washoe County and Carollo Engineers, Inc. to provide engineering services for sanitary sewer flow and water quality analysis in the existing collection

system within the South Truckee Meadows Water Reclamation Facility and Spanish Springs service areas.

On March 10, 2015, the Board approved an agreement for consulting engineering services with Carollo Engineers Inc., in the amount of \$340,438, to provide planning and engineering services for the South Truckee Meadows Water Reclamation Facility 2015 Facility Plan Update Project.

On February 13, 2007, the Board awarded an agreement for consulting engineering services with CH2M Hill Inc. to provide facility planning and preliminary engineering services for the South Truckee Meadows Water Reclamation facility.

On August 20, 2002, the Board adopted the South Truckee Meadows Water and Wastewater Facility Plan.

### **BACKGROUND**

Washoe County owns and operates the South Truckee Meadows Water Reclamation Facility (STMWRF) which provides sewer treatment to approximately 13,000 homes and businesses within southern Washoe County, including portions of the City of Reno. The facility was commissioned in 1990 and the last expansion was completed in 2003. STMWRF is presently configured to treat up to 4.1 million gallons of sewage per day (MGD). Wastewater influent flows to STMWRF are presently 3.5 million gallons per day and increasing approximately 3-percent annually.

Since STMWRF is nearing its permitting capacity, the State of Nevada Division of Environmental Protection requires that Washoe County update facility planning to ensure the next phase of sewer capacity is thoughtfully planned and ready when needed. Major infrastructure improvements at STMWRF can take 3-5 years to plan and construct.

The previous work completed by Jacobs anticipates that the facility will need to be expanded to capacity of approximately 6.2 MGD (Average Annual Daily Flow) and 6.9 MGD (Average Daily Maximum Month Flow), to be finalized in the final design. In addition, the secondary treatment process for the facility will be changed to provide a more consistent and higher quality treated effluent.

The professional service contract being considered at this time includes project management, site investigations, additional needed basis of design investigations, detailed design, coordination with the Construction Manager at Risk (CMAR) for the project, SCADA system modifications, permit and public involvement support and additional engineering services during construction. It's anticipated that the design services will be completed by early 2022 and that the entire project will be completed by late 2024.

The engineering services was added to this contract because its anticipated that additional GMP's will be added to the project and construction services from Jacobs will be needed. The scope and fee for these services will be negotiated as the project GMP's are designed and bid with the CMAR.

### **FISCAL IMPACT**

Sufficient funds and budget authority in FY21 for the \$12,004,520 Professional Consulting Engineering Services Agreement exist in the Utilities Fund (566), STMWRF 2020 Expansion (WR860109), Professional services (710100). Revenues in support of the expansion project are provided from developer sewer connection fees.

Funding for the project will initially come from the Utilities Fund. Periodic submission of project construction cost will be made on the 30-year loan from the State of Nevada State Revolving Fund (SRF) Clean Water program through ordinance authorizing issuance of General Obligation Sewer bonds approved by the Board on April 21, 2020, thereby maintaining sufficient cash reserves within the Utilities Fund.

### **RECOMMENDATION**

It is recommended the Board of County Commissioners approve an Agreement for Professional Consulting Services between Washoe County and Jacobs Engineering Group, retroactive to August 28, 2020 through December 31, 2024, to provide final design engineering services for the South Truckee Meadows Water Reclamation 2020 Facility Expansion Project within the South Truckee Meadows Water Reclamation Facility service territory [\$12,004,520].

### **POSSIBLE MOTION**

Should the Board agree with staff's recommendation, a possible motion would be: "Move to approve an Agreement for Professional Consulting Services between Washoe County and Jacobs Engineering Group, retroactive to August 28, 2020 through December 31, 2024, to provide final design engineering services for the South Truckee Meadows Water Reclamation 2020 Facility Expansion Project within the South Truckee Meadows Water Reclamation Facility service territory [\$12,004,520]."