STAFF REPORT

Date: **August 23, 2023**

To: **Mayor and City Council**

Thru: **Doug Thornley, City Manager**

Subject: **Staff Report (For Possible Action): Approval of Consulting Agreement for Design and Construction Manager at Risk Support Services with Jacobs Engineering Group Inc. for the Truckee Meadows Water Reclamation Facility Dewatering Building Project in the amount of $4,066,496 with Reno's share being $2,790,836.21. (Sewer Fund)**

From: **Matt Smith, Senior Civil Engineer**

Department: **Utility Services**

Summary:
Dewatering solids is an integral part of the wastewater treatment process at Truckee Meadows Water Reclamation Facility (TMWRF), and the existing dewatering facility has reached its maximum capacity and lacks redundancy. Jacobs Engineering Group, Inc. (Jacobs) recently completed a pre-design and evaluation report that detailed expanded dewatering process options, and a new dewatering building design has been selected. This agreement with Jacobs provides design services for a new dewatering building, and support for the Construction Manager at Risk (CMAR) process for pre-construction services. Staff recommends Council approve the agreement for design and CMAR support services with Jacobs as described in the attached scope of work in an amount not to exceed $4,066,496 (Reno's share being $2,790,836.21 from the Sewer Fund).

Alignment with Strategic Plan:
Fiscal Sustainability
Infrastructure, Climate Change, and Environmental Sustainability

Previous Council Action:
May 25 2022 – Council approved a pre-design and evaluation agreement with Jacobs for $1,147,233.

December 9, 2020 – Council approved a Consulting Agreement with Brown and Caldwell for Engineering Services for the Truckee Meadows Water Reclamation Facility Dewatering System

Improvements Project for $584,698.

February 27, 2019 – Council approved an Agreement for Consultant Services with Brown and Caldwell for centrifuge and dewatering equipment pilot assistance for $143,259.

Background:
The TMWRF dewatering facility, originally constructed in 1984, uses equipment such as centrifuges to separate, thicken, and dispose of solid waste and recover water from sludge, has seen several incremental enhancements and improvements over the years. The dewatering process currently operates 24 hours per day, 7 days per week, without any redundancy measures in place, which requires the process to remain operational during the construction or retrofit of the facility. With some of the components reaching their maximum capacity and constraints on operations and maintenance of the existing facility, the dewatering process and building must be expanded. The consequence of continued operation of the existing dewatering building without expansion risks process failure due to its age and condition, increases operational and maintenance costs, and increases potential permit violations and safety hazards.

In 2020, Brown and Caldwell prepared a comprehensive report aimed at addressing safety, maintenance and operations constraints and increasing the capacity of the TMWRF Dewatering Facility. The report's findings identified critical challenges with the existing building including a lack of space to rehabilitate or replace existing components or upsize components within the building and a major seismic retrofit required to perform the proposed improvements within the current building. Additionally, two additional buildings need to be constructed as part of the project; a polymer building and a sludge hopper building to support the increase capacity. These critical challenges resulted in preliminary cost estimates that far exceeded initial projections, underscoring the complexities of executing such enhancements to the existing dewatering process.

With significant challenges and constraints to the existing facility and the fact the process must remain operational during construction, Jacobs was selected in 2022 through the request for qualifications (RFQ) process to perform pre-design and evaluation services for the existing building, and provide alternatives to expand the process capacity.

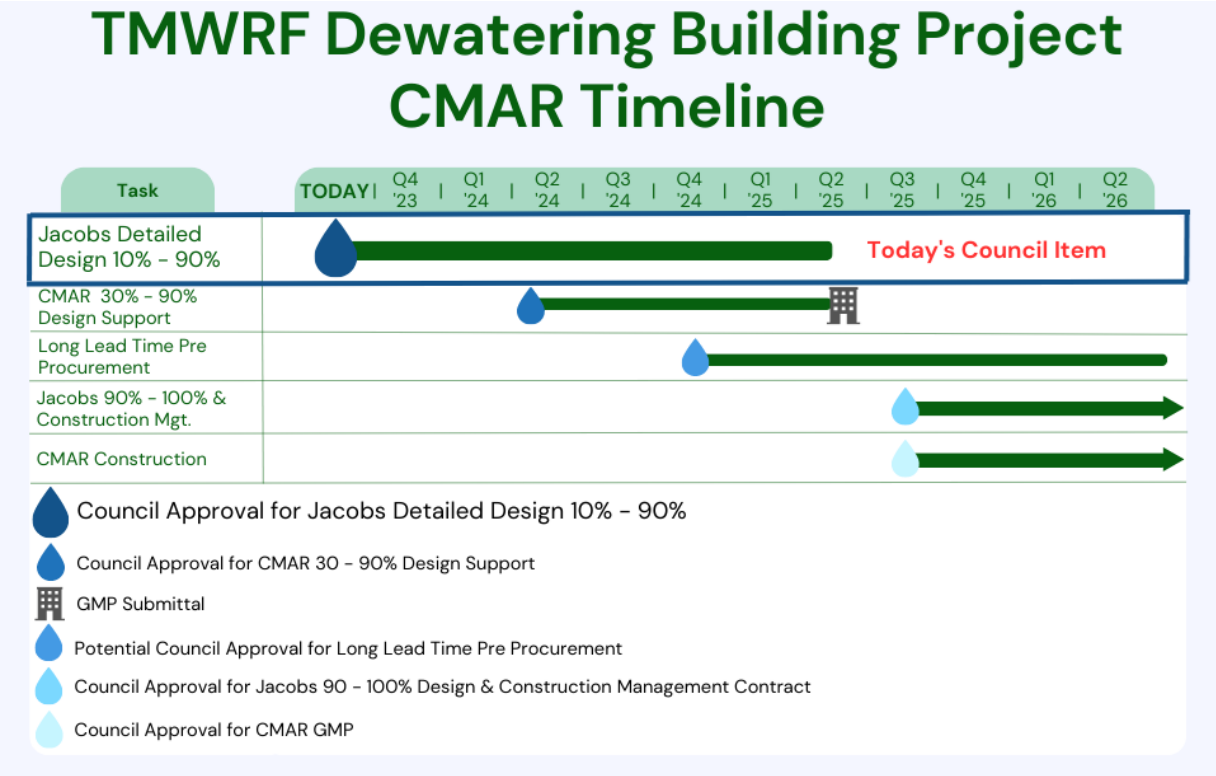
As part of the TMWRF Capital Improvement Program (CIP), “Risk Ranking” of infrastructure identifies project priorities, condition, and risk of failure. Since 2018, the dewatering building and process has been ranked as number 1 – the highest risk.

Discussion:
Jacobs’ pre-design and evaluation analysis recommended construction of a new dewatering building in lieu of modifying and expanding the capacity of the existing dewatering system and

building due to cost, existing constraints, and building condition. Jacobs also recommends the CMAR process due to the project complexity combined with vertical construction, long lead time for purchasing materials, and opportunities for value engineering.

The CMAR process varies slightly from the conventional design-build projects typically used by the city, in that a contractor is engaged much sooner in the project, and typically after the 30% design stage. As such, this Agreement for Design and Construction Manager at Risk Support Services with Jacobs will include detailed design from 10-90% completion as well as CMAR support services once the CMAR contractor has been selected after the 30% design has been completed.

This CMAR approach will include multiple opportunities for council approval at various milestones throughout the project's progression, as indicated by the figure below.



This agreement for Design and CMAR Support Services is included in this Fiscal Year's CIP as approved by the TMWRF Joint Coordinating Committee and the respective City Councils of Reno and Sparks through the budget process.

Staff recommends continued design for a new dewatering building. This agreement with Jacobs will provide design and CMAR support services that includes detailed design up to 90% plans and specifications, engineering construction cost estimates, and support during the CMAR pre-

construction process.

Financial Implications:
The Dewatering Building Design and CMAR Support Services is included in the current fiscal year's CIP as approved by the TMWRF Joint Coordinating Committee (JCC) and the respective City Councils of Reno and Sparks through the budget process. 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 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.

Table 1 – Cost Sharing Between Reno and Sparks

Total Cost of Agreement	Reno Share	Sparks Share
$4,066,496	$2,790,836.21	$1,275,659.79
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 consultant agreement with Jacobs for design and CMAR support services for the TMWRF Dewatering Building Project in an amount not to exceed $4,066,496, with the City of Reno's portion being $2,790,836.21 (Sewer Fund), and authorize the Mayor to sign.

Proposed Motion:
I move to approve the staff recommendation.

Attachments:

• Area & Vicinity Map for TMWRF Dewatering Building Design and CMAR Support Services Project
• Agreement with Jacobs TMWRF Dewatering Building Design and CMAR Support Services