

STAFF REPORT

Date: November 8, 2023

To: Mayor and City Council

Thru: Doug Thornley, City Manager

Subject: Staff Report (For Possible Action): Approval of Consultant Agreement with Brown and Caldwell for design services related to the Reno Stead Water Reclamation Facility (RSWRF) Flow Shave Capacity Increase Project in an amount not to exceed \$434,000. (Sewer Fund)

From: Joseph Coudriet, Senior Civil Engineer

Department: Utility Services

Summary:

The Reno Stead Water Reclamation Facility (RSWRF), is permitted to treat 2 million gallons per day (MGD) of raw sewage. A recently constructed expansion increased the plant’s treatment capacity to 4 MGD; however, the existing effluent discharge permit limits the total discharge to 2 MGD. The Advanced Purified Water Facility Project at American Flat (APWF) will provide the effluent management solution for full utilization of the RSWRF expanded treatment capacity, however the APWF is not anticipated to be operational and permitted, until mid-2028.

As an interim measure, council has adopted an allocation program to shave flow from the RSWRF to the Truckee Meadows Water Reclamation Facility (TMWRF), thereby maintaining compliance with the effluent discharge permit. It is anticipated that the current allocation program will be exhausted by early 2026, and in order to bridge the gap in time, staff proposes to increase pumping capacity from RSWRF to TMWRF.

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?		0.0504%

Staff recommends approval of an agreement for consulting services with Brown and Caldwell for professional engineering design services of the Flow Shave Capacity Increase Project in an amount not to exceed \$434,000 (Sewer Fund).

Alignment with Strategic Plan:

Infrastructure, Climate Change, and Environmental Sustainability

Previous Council Action:

February 22, 2023 – Council approved the use of an additional 125,000 gallons of flow shave capacity for a total of 350,000 gallons of the 500,000 gallons of overall capacity.

June 1, 2022 – Council approved the use of an additional 100,000 gallons of flow shave capacity for a total of 225,000 gallons of the 500,000 gallons of overall capacity.

November 4, 2020 – Council approved the use of an additional 50,000 gallons of flow shave capacity for a total of 125,000 gallons of the 500,000 gallons of overall capacity.

September 11, 2019 – Council approved the use of up to 15 percent of the 500,000 gallon flow shave capacity for a total of 75,000 gallons of sewer capacity for growth.

August 5, 2019 – Council comprehensively evaluated water and flood management options for the North Valleys and provided direction to staff. Council approved proceeding with a 2.0 MGD expansion to RSWRF, designing the expansion to not require additional discharge of effluent into Swan Lake, expediting projects to lower water levels at Swan Lake and initiating a long-range water and flood management planning process.

January 9, 2019 – Council adopted Resolution No. 8624 - A Resolution of City Council determining the need to establish a sewer allocation list and the prepayment of sewer connection fees for the Reno Stead Water Reclamation Facility pursuant to RMC 12.16.310.

December 5, 2018 - Council awarded contract for construction of Reno Stead Water Reclamation Flow Shave project to KG Walters Construction Co. for the not-to-exceed amount of \$253,000.

June 13, 2018 - Council approved an Agreement with Brown and Caldwell for professional engineering services, which included the Reno-Stead Water Reclamation Facility Interim Flow-Shave Project in an amount not to exceed \$433,051 (Sewer Fund).

Background:

The sewer capacity at the RSWRF is limited by the ability to manage effluent. RSWRF effluent is either used for seasonal reuse or sent to Swan Lake, with a maximum allowable discharge of 2 MGD. The existing flow shave diverts influent flows from the headworks of RSWRF to the headworks of the TMWRF. The existing flow shave was upgraded in 2019 and provides 0.5 MGD of capacity. In 2019, Council initiated a sewer allocation process for RSWRF. Due to concerns of flooding in Swan Lake, City Council only approved use of 0.35 MGD of the available 0.5 MGD flow shave capacity, and reserved approximately 0.15 MGD for flood mitigation. Given development trends in the RSWRF sewershed, it is anticipated the remaining approved 0.35 MGD of flow shave capacity will be exhausted by early 2026, and the proposed APWF project will not be complete and permitted under the Nevada Division of Environmental Protection until mid-2028.

Discussion:

Construction of a Flow Shave Capacity Improvement project would increase the pumping capacity of the existing flow shave infrastructure by 0.4 MGD that could serve an additional 2425 ERU's and extend the anticipated capacity by approximately five (5) years or to 2029-2030. Should growth rates in the North Valleys exceed the anticipated 500 ERU's per year, or the APWF project be delayed, the Flow Shave Capacity Improvement project could serve to bridge additional gaps.

Additional benefits of the Flow Shave Capacity Improvement project include mitigation of continued high levels of infiltration and inflow (I&I) that have had an ongoing impact on the flows rates being treated at RSWRF, provide future operational benefits by providing flexibility to treat lower volumes as may be required to perform system maintenance or rehabilitation or for Swan Lake flooding response.

Staff requested a proposal for design of the Flow Shave Capacity Improvement Project to expand the flow shave pumping by 0.4MGD to a total of 0.9 MGD. The proposed project upgrades consist of pumping and piping modifications to the existing solids pump station, piping upgrade for the diversion pump station, and upgrades to electrical capacity and other related appurtenances (grinder/macerator, surge tank, controls, etc). The proposed agreement with Brown and Caldwell for design services also includes Construction Management support. Should Council approve this agreement, staff will return to Council for approval of a construction contract in approximately 14 months to construct the flow shave improvements.

Brown and Caldwell has been selected from the Statement of Qualifications unranked list to provide design services for the project not to exceed \$434,000.

Financial Implications:

Funding is available from the Sewer Fund for this consulting services agreement and was budgeted for in the FY 24 Capital Improvement Program.

Legal Implications:

Legal review completed for compliance with City procedures and Nevada law.

Recommendation:

Staff recommends Council approve the agreement with Brown and Caldwell for design services related to the Flow Shave Capacity Increase Project, in an amount not to exceed \$434,000.

Proposed Motion:

I move to approve staff recommendation.

Attachments:

Agreement and Scope