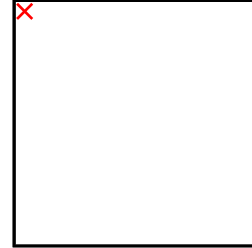


CITY OF FLAGSTAFF
STAFF SUMMARY REPORT

To: The Honorable Mayor and Council
From:
Co-Submitter: Brad Hill
Date: 09/25/2019
Meeting Date: 10/01/2019



TITLE:

Consideration and Approval of Contract: Award of a Professional Services Contract with Brown and Caldwell, Inc. for the Lake Mary Water Treatment Plant Sedimentation Basin Design

STAFF RECOMMENDED ACTION:

1. Approve the Professional Services Contract with Brown and Caldwell Engineering, Inc. in the amount of \$374,236 to prepare the plan and bid specifications for the Lake Mary Water Treatment Plant Sedimentation Basin design; and
2. Authorize the City Manager to execute the necessary documents.

Executive Summary:

The City of Flagstaff is rehabilitating the sedimentation and clarifying basins at the Lake Mary Water Treatment Plant. The existing mechanical clarifying equipment in the basins at the treatment plant have exceeded their operational life requiring replacement and there is also extensive rehabilitation to the concrete basins required. There is an immediate need to design improvements to the existing water treatment facilities. The Professional Services Contract will provide plans and bid specifications for the installation of a future \$3.28M facility improvement. The design will address all mechanical, electrical, concrete and structural components contained in the sedimentation and clarifying basins located at the Lake Mary Water Treatment Plant.

Financial Impact:

The project currently has \$380,000 budgeted in account 202-08-370-3372-0-4465 (FY 2020) for this engineering design.

Policy Impact:

No Impact

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

Council Goals:

- 1) Provide sustainable and equitable public facilities, services, and infrastructure systems in an efficient and effective manner to serve all population areas and demographics.
- 2) Continue to implement the Flagstaff Regional plan and focus efforts on specific plans.

Has There Been Previous Council Decision on This:

There has been no previous Council decision on this item.

Options and Alternatives:

1. Approve the award as recommended; or
2. Reject bids and re-advertise the Professional Services Contract.

Background and History:

The City's water system consists of two surface water treatment plants with the Lake Mary Water Treatment Plant being the primary plant providing up to 8 MGD million gallons per day of water resources. An evaluation was conducted in 2015 to assess conditions of the facilities to estimate their useful remaining life. Facilities were prioritized for conditions which needed immediate attention. The top priority improvement project identified was the rehabilitation of the Lake Mary Water Treatment Plant sedimentation basins. Severe deterioration, spalling and exposed aggregate along vertical concrete walls requires attention. Sludge collector rake mechanism, drive, bridge, and center well assemblies are deteriorated and at the end of their useful lives. Significant corrosion on all drives, exposed metal components, weirs and channels, no provision for draining the clarifiers needs to be addressed.

The Lake Mary Water Treatment Plant sedimentation basin improvement project will rehabilitate and resurface existing sedimentation basins. There are 4 basins that measure 70ft x 70ft x 12 ft each. The rehabilitation project will replace existing clarifier drive and collector units in each of the settling basins for process sludge removal. Deteriorated concrete structures and piers need to be rebuilt and resurfaced. The sludge collection mechanisms, drive, center well, and bridge needs to be replaced. The project will also provide a new drain pump and wet well for the drain pump

Total project cost is estimated at \$3.28 million dollars and construction of improvements will be funded by water rates.

On December 21, 2017, the Purchasing Section posted a Request for Statements of Qualifications (RSOQ) solicitation for Engineering Design consulting services on the PlanetBids website, and advertised the RSOQ in the Arizona Daily Sun on December 26, 2017 and January 2, 2018. On January 17, 2018, the City received a total of five (5) Statements of Qualifications (SOQs) from Engineering Consultant firms. An evaluation committee was formed consisting of six (6) members, including one member outside of City employment, all having experience working in or with Water Treatment operations and these specialized professional services. Based upon the numerical scoring of the SOQs, the evaluation committee identified the most qualified firm to perform the engineering services for the project. Brown and Caldwell's SOQ demonstrated a clear expertise in their knowledge and experience to develop a complex water treatment design. The scores for each of the firm's SOQs are as followed:

- Brown and Caldwell - **535**
- Carollo Engineers - **511**
- Garver, LLC - **508**
- NCS Engineers - **497**
- Greeley and Hanson - **454**

Key Considerations:

The existing Lake Mary Water Treatment Plant has sedimentation basin equipment and systems that are approaching the end of their asset life. They are an integral asset and are required for the Lake Mary Water Treatment Plant to function and allow for proper operations. This project was identified by NCS Engineers in the Water Systems Master plan conducted in 2015 as the #1 priority infrastructure replacement needed at the Water Production facilities. Improvements to the Lake Mary Water Treatment Plant sedimentation basin is required in order to maintain our existing permit and regulatory compliance with the Arizona Department of Environmental Quality (state) and the EPA (federal).

Community Benefits and Considerations:

N/A

Community Involvement:

The engineering design of the Lake Mary Water Treatment Plant sedimentation basin improvements will enable the facilities to continue to operate safely, smoothly and efficiently. This will allow the City to provide water services with no interruption or quality impacts. Replacing aging infrastructure at the Lake Mary Water Treatment Plant facility is critical to maintaining our operational costs. By doing this improvement now it will help further reduce costly repairs and unplanned outages which helps us maintain low rates for our customers.

Expanded Options and Alternatives:

N/A

Attachments: Professional Services Contract
 Contract Exhibit A - Scope and Fee
 Presentation