



Town of Johnstown

TOWN COUNCIL AGENDA COMMUNICATIONS

AGENDA DATE: September 8, 2021

SUBJECT: Award design services for Water Treatment Plant

ACTION PROPOSED: Consider Awarding the Water Treatment Plant Design to Burns & McDonnell Engineering

ATTACHMENTS:

1. RFP
2. Contract/Scope of Services
3. Burns & McDonnell Proposal
4. Burns & McDonnell Updated Proposal
5. Aqua Proposal
6. Carollo Proposal
7. JVA Proposal

PRESENTED BY: Marco Carani, Public Works Director

AGENDA ITEM DESCRIPTION:

Enclosed for your review and consideration is a request to hire a design Engineer for the expansion of our Water Treatment Plant.

The Town currently operates the Water Treatment Plant located behind the Johnstown Cemetery. The Water Treatment Plant was built in 1966 as a mixed media filtration plant. It has gone through a few upgrades over the years, the biggest upgrade was in 2006. The Town upgraded the pretreatment side of the plant and built the new DAF building which removed the old clarifiers and replaced them with a Dissolve Air Flotation system (DAF).

Due to rapid growth in the Town of Johnstown the Water Treatment Plant has been experiencing higher daily flows leaving the plant. During the winter months we average 1.5 MGD of treated water. Starting in May of every year through mid-October, our plant is operating at 4.7 MGD with peak hour demand showing 9 to 11 MGD. Our current plant is permitted for 5 MGD and has the capability to produce 6 MGD. As we look at future growth in the Town of Johnstown the need to expand this plant from a 5 MGD plant to 12 MGD is imminent. Staff sent out RFP's through bidnetdirect and received four proposals from qualified engineering firms, Carollo, JVA, Aqua, and Burns & McDonnell.

The submittals were reviewed independently by the Public Works Director, Deputy Director of Public Works, Ramey Environmental Compliance, and the Town Manager. From the four applicants, the proposals were narrowed down to two (2) firms who we invited for formal interviews to discuss their proposals; explaining their experience, their approach to the project, and how they can best meet the needs of the Town. The RFP requested three different options.

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Option 1.

Consider expansion of the existing filter building to house an additional set of filters to achieve a 10 to 12.4 MGD filtration construction in an adjacent building to house new filters. Filter media must match existing.

Option 2.

Construction of 3 to 4 racks of 3 MGD or greater to achieve 10 to 12.4 MGD treatment of pressurized membranes housed in a separate building constructed similar to a pole barn.

Option 3.

Other viable alternatives that the consultant may want to propose that helps to meet the Town's water demands that can be modular in nature to allow for future expansion of the Water Treatment Plant.

During our work session held on April 12, 2021. Staff along with Burns and McDonnell discussed options that the Town Council wanted to see moving forward for the residents of Johnstown to achieve improved water quality and the improvements to manage the Town's drinking water taste & odor issues. Council's direction for the short term was to install a Granular Activated Carbon (GAC) system, an Ultra Sonic Buoy for Town Lake, and improvements to our Powdered Activated Carbon system at Lone Tree Reservoir. To ensure a long-term solution, Council requested installation of an OZONE/Biologically Active Filtration (BAF) Water Treatment Plant. This would address the needs of the Town for many years.

Burns and McDonnell has been working with Staff to put together a plan on how this type of Plant would work with our current conditions. We have built a collaborative relationship with this company and feel moving forward with them would be in the best interest of the Town based on their proposal. Their proposal submitted was for a Membrane and Granular Activated Carbon (GAC) Plant. Cost for this design was \$814,022. After discussion with Town Council on June 14, 2021 work session, it was confirmed to proceed forward with the OZONE/BAF Water Treatment Plant and we requested they adjust their bid design to achieve this treatment process.

Burns and McDonnell gave the Town a design quote for \$2,059,442 for the Ozone /BAF. Staff considered bidding out the entire project again with this new direction, but is requesting we proceed with Burns and McDonnell for reasons that we have been working with then on this project and they have provided direction and a commitment to provide the Town of Johnstown with a project that will support the Town's needs for many years. Staff also feels delaying this any longer may impact future water needs. Staff believe their expertise and ability to meet the expectations of the Town outweighed the need to bid out this project again.

The total contract amount for the services is \$2,059,442. A budget amendment is not currently requested because based on the project schedule, we do not anticipate the project scope being fully completed this fiscal year. However, Council should consider the fact that this project cost is above what was initially anticipated. The original budget amount was \$450,000 to expand the current plant using the same filtration process. The total difference between the budgeted amount and the amount requested is \$1,609,442. This amount will be requested in the FY 2022 budget.

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In addition to the design, pilot testing may be required by CDPHE. This will entail rental of Ozone testing equipment, Biologically Active Filter (BAF) test equipment and installation and monitoring. This also entails bench scale jar testing, data collection at the WTP to assess optimal chemical dosing options. The goal is to simulate peak taste and odor conditions. Cost for the pilot program that may be needed during the design phase and could cost up to \$831,280. This cost will be brought to Council for approval in the FY 2022 budget work sessions. Burns and McDonnell have asked CDPHE if they could use other pilot programs that have been completed in the last year. We are waiting for the response from CDPHE. A breakdown of pilot test cost attached in this packet.

LEGAL ADVICE:

The contract has been reviewed by the Town Attorney.

FINANCIAL ADVICE:

\$450,000 was budgeted in FY 2021. Funds are available to permit this project to move forward and if additional funds are necessary this fiscal year, they could be appropriated later in the calendar year.

RECOMMENDED ACTION: Approve the contract as presented.

SUGGESTED MOTIONS:

For Approval:

Staff Recommends to approve and award the Water treatment Plant Expansion Design to Burns and McDonnell in the amount not to exceed. \$2,059,442. \$450,000 to be spent as budgeted in FY 2021 and staff will present the remaining cost to Council in the FY2022 budget in the amount of \$1,609,442.

For Denial:

Staff recommends that we deny the award as presented and solicit formal bids again.

Reviewed and Approved for Presentation:



Town Manager