



Town of Johnstown

TOWN COUNCIL AGENDA COMMUNICATION WORK SESSION

AGENDA DATE: June 14, 2021

SUBJECT: Water Plant Design Consideration

ATTACHEMENTS: 1. Comparison of projects between GAC Membrane to Ozone BAF

PRESENTED BY: Marco Carani, PW Director

In April, Town Council and Staff met with Burns and McDonnell to discuss options to address taste and odor issues in the Town's drinking water. During the work session Council was presented with two options:

1. Granular Activated Carbon (GAC)
2. Ozone with Bio Active Filtration (BAF)

Town Council at this meeting were presented with construction costs for the two options. Based on construction timelines, Staff was directed to proceed with an interim solution to install the Granular Activated Carbon (GAC) system, install an Ultrasonic Buoy at Town Lake, and to proceed forward with the Water Treatment Plant expansion design for an Ozone and Bio Active Filtration (BAF) system. This installation is planned for completion by the end of this month.

Latest lab results show that the Geosmin and MIB levels from the study are lower than first estimated. Assuming levels remain consistently lower, this may result in less GAC material necessary on an annual basis and lower operational costs for the Membrane/GAC system by \$200,000 per year.

Below is a recap of the two treatment types, and the achievements and costs we can anticipate for each of the treatments. Burns and McDonnell has also provided some preliminary construction cost ranges for the two options as well as the design costs. It is also important to note that the construction cost may have some variation based on value engineering or inflationary changes since construction is not anticipated to commence for 18 – 24 months.

Process Summary	Membrane Filtration/GAC	Ozone/BAF
Taste & Odor Removals	60 to 80%	90 to 99%
Annual O&M Costs	\$391,000	\$69,000
Preliminary Capital Costs	\$20M to \$35M	\$45M to \$60M
Design Costs	\$814,022	\$2,261,237
Preliminary Construction Estimates	\$25,914,000	\$55,299,00

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The objectives of this work session is to:

1. Update the Council with cost estimates for both project types.
2. Get final directive from Council regarding the water treatment options presented in preparation of an award of the project design.

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