

PLEASE NOTE: REMOTE MEETING via ZOOM

Meeting ID (253 279 4161)

Dial: (929) 205 6099

**Brandon Board of Sewer Commissioners Meeting
October 26, 2020
7:00 p.m.**

The Brandon Board of Sewer Commissioners will meet Monday, October 26, 2020 in conjunction with the Select Board Meeting expecting to consider the items noted on this agenda. Agendas shall be posted on the community bulletin board located at the Town Office at 49 Center Street and on the community bulletin board located at the Junction Store & Deli at 2265 Forest Dale Road. The Select Board reserves the right to add additional items, if necessary, at the beginning of the meeting.

- 1) Call to Order
 - a) Agenda Adoption
- 2) Approval of Minutes
 - a) Sewer Commissioners Minutes – October 12, 2020
- 3) Consider Wastewater Treatment Plant Upgrade Options
- 4) Adjournment

**Brandon Board of Sewer Commissioners Meeting
October 12, 2020**

NOTE: These are unapproved minutes, subject to amendment and/or approval at the subsequent board meeting.

All in Attendance via Zoom.

In Attendance: Seth Hopkins, Brian Coolidge, Tracy Wyman, Tim Guiles, Doug Bailey

Others In Attendance: Dave Atherton, Brent Buehler, Bill Moore, Wayne Rausenberger, Shari Vaccarella, Butch Shaw, Chris Brickell, Bernie Carr, Wayne Elliott, Jeff Lewis, Lee Kahrs

1. Call to Order

The meeting was called to order at 7:02PM by Seth Hopkins – Chair.

a. Agenda Adoption

Motion by Tracy Wyman/Tim Guiles to adopt the agenda. **The motion passed unanimously.**

2. Consent Agenda

a) Minutes of Board of Sewer Commissioners of September 14, 2020

Motion by Tracy Wyman/Tim Guiles to approve the minutes of the September 14, 2020 Sewer Commissioner’s Meeting. **The motion passed unanimously.**

3. Aldrich & Elliott Presentation

Wayne Elliott and Jeff Lewis of Aldrich and Elliott were present to provide information regarding the study and report on the wastewater treatment plant. Mr. Elliott noted there is a lot of information in the report and provided a brief overview and noted they got together with the Town and State in July to look at the alternatives for the plant. The evaluation costs have been done but a project has not been developed yet. The original parts date back to the 1960s and are about 60 years old. The majority of the plant was built in 1965 and is still there and operable. There was some work done in 1990s, 2002 and 2005. The majority of the proposed work is age related and the goal of the State is to continue to operate the plant successfully. The conditions of the operating plant are in the report. There is a challenge in that a lot more water comes in depending on the weather. When getting into wet weather periods the daily flows increase up to almost a million gallons per day. Mr. Elliott noted the sewer system is a separate project. Seth Hopkins stated with regard to wet weather, the Board has heard the Town does not have a combined stormwater/wastewater system. Mr. Elliott stated as an example with Rutland City, there is a true combined system with a lot of stormwater catch basins and is a function of wet weather and snow melt. In Brandon, a lot of the pipes don’t follow the streets and follow the

topography and become flooded at times when the river levels are up in the spring and the open joints see infiltration because the pipes aren't tight. There have been some root drain problems in the past and is a combination of those types of sources of flows which is why there is more water during wet weather.

Mr. Elliott advised the priorities have been identified: the headworks, oxidation ditches and secondary clarifiers. The headworks is where the preliminary treatment occurs that is part of the pumping function and takes the screenings out of the raw wastewater coming into the plant, the oxidation ditches are where part of the treatment occurs and the secondary clarifier is where the solids fall out of the system. There are a number of age-related items. Alternatives were provided that address these areas. To start with the preliminary treatment, the State requires a "do nothing" option that is no cost, the second option is to add new screening. The plant does not have screening at the facility and this has been a deficiency and concern of the operators as this does not take the plastics and rubbers out, which continues to make their way through the rest of the plant plugging pumps. The addition of screening and replacing the grid system will cost \$140,000 and third option is to replace the existing grinder and upgrade the grid system at a cost of \$690,000. The ditches are original, and the concrete is in good shape and it is essentially the routers that do the movement of the water. This priority would be the equipment for the routers. For this need there would be to do nothing. The second option is to replace the routers and equipment on one of the ditches at a cost of \$404,000. The secondary clarifiers date back to the mid-70s and typically have a 25 to 30-year life. For this priority there is a do-nothing option, the second option is to replace the same equipment and use the existing concrete structure at a cost of \$749,000. They also looked at trying to better optimize the performance of the two existing clarifiers during high flow conditions and included an option to upgrade the two existing clarifiers and adding a third clarifier at a cost of \$1,570,000. The disinfection priority would have the do nothing plan, the second option would be addressing some age related items at \$70,000 and a list of age related items - the control building, lab and electrical option would cost \$946,000. Each of the options has been evaluated but they do not typically make a recommendation at this point but will work with the staff in the development of a project. In taking all of the priorities and choosing one from each and solely addressing the age-related items, which would not improve the performance of the facility, would be a bare construction cost of \$2,860,000. If choosing alternative #2 with adding a new screen to help performance and adding a 3rd clarifier would be on the upper end of \$4,100,000. These costs would be the general construction cost and does not include the contingency, engineering permit fees and other miscellaneous costs.

Seth Hopkins asked the Town Manager if there has been any guidance from the State regarding funding or what they would like Brandon to do. Dave Atherton stated he has not pursued any discussion with the State until the plan is chosen. Mr. Elliott noted once they have the scope of project size, they will come back with the funding options. There are two buckets of money. With the State's Clean Water program, as of July 1st for towns with a population under 10,000, the State will provide a 40% subsidy up to \$2,000,000. The balance would be a loan at 2% over 30 years. The other option which may be a better avenue is the use of the USDA Rural Development funding and that would qualify the Town for up to 45% grants and their interest is at an all-time low. The State portion wouldn't be available until July 1st and would probably require a bond vote. For the USDA option, their funding deadline would require an application

be submitted by mid-December. They cannot issue a formal funding offer until a bond vote and they only accept applications once a year. Mr. Hopkins stated the Town has had success with some of the same kinds of funding sources. Mr. Hopkins questioned if the Option 2 on the headworks is the best thing to do, as the screening appears to be a real deficiency in order to avoid problems in the future. Mr. Elliott agreed the screening would be important. Jeff Lewis stated there are influent pumps just downstream where the screening would be put that would be helpful for the plant. Tim Guiles stated with the different options, he appreciates the report and asked about the 3rd clarifier and whether it is insurance. Mr. Elliott stated the current clarifiers have serviced the Town well, but they go back to 1975. This is a peripheral feed, and the biggest thing is the design standards have changed with clarifiers and the ones here are too shallow. Under normal flow conditions they work fine, but as the flows increase in the fall and the snow run off in the spring, they are not adequate for the flows. They would be deeper with a new plant and would help the performance of the plant. Mr. Guiles asked if the flows could be minimized in the future. Mr. Elliott stated it is inherent to the age of the systems. The Town has done a lot of work in the Route 7 area and the Champlain pump station. The mapping will also be a huge step done but some of that flow will always be there as it is a function of the location of the sewer lines. They are in wet areas and not in the streets and it is hoped the peaks can be shaved a little. Dave Atherton noted the police station always gets infiltration and if that could be fixed that will be a huge savings in the infiltration. Mr. Elliott stated the pipes are all over the place and it is difficult to maintain that infrastructure. Mr. Hopkins asked if there is adequate room for another clarifier if the Town can obtain the funding. Mr. Elliott advised there is space on the site and there are a couple of options to look at on the existing site. Mr. Hopkins questioned the next steps. Mr. Elliott suggested the Town should do at least one of the alternatives under the major items; the preliminary treatment would be #3, the ditches would be #2, secondary clarification and disinfection would be #2 and the age related items would be #2, which would be a cost of about \$2,800,000. Beyond that it would be whether to change the preliminary treatment with adding the screening and under the secondary clarification of whether to go to alternative #4 to add the 3rd clarifier. Mr. Hopkins asked if the Town looks to do the best repair/replacement going for the options that will provide the most results, where would the Town stand funding-wise. Mr. Elliott stated the funding is available and the Town has a good handle of what is available, and they could wait to see what is received from the USDA. The screening and clarifier will improve the performance of the plant, but the focus is on the overall reliability. Mr. Hopkins asked if the impact on the sewer rates could also be determined and Mr. Elliott advised the funding options could be laid out to include the operating costs and a schedule. Mr. Hopkins noted the Board would like to see the screening and third clarifier incorporated into the proposal to determine the results in the funding and costs. Mr. Guiles suggested having both the maximum and minimum options done to see how they affect sewer rates. Mr. Atherton advised the Town needs to prepare for an application to USDA in December and prepare for a bond vote in March with whatever the Board decides to go with. It needs to be known what is in the proposed project well in advance to enable completion of the application. Mr. Hopkins noted the Board is not a big spender, but it has been shown very locally and recently that solid infrastructure is important to economic development and the vibrancy of a town. There has been an investment made in the downtown infrastructure and this area has been identified as an asset that has benefited the Town but has not been kept up to standard. The Town needs to make an investment in the wastewater treatment that will continue to make Brandon a town to do business and be a host for families for

the future. Mr. Hopkins thanked Mr. Elliott and Mr. Lewis for providing this information. Mr. Atherton will work with Mr. Elliott on some possible scenarios.

4. Adjournment

Motion by Brian Coolidge/Doug Bailey to adjourn the Board of Sewer Commissioners' meeting at 7:31PM. **The motion passed unanimously.**

Respectfully submitted,

Charlene Bryant
Recording Secretary

MEMORANDUM

DATE: October 14, 2020

TO: Selectboard, Brandon
Dave Atherton, Brandon

FROM: Wayne Elliott, PE

RE: WWTF Upgrade
Proposed Project Options and Estimated Costs
A+E Project No. 19051

As requested by the Board, we have provided a summary of the costs for the proposed project options as follows:

Option #1 – This approach focuses on addressing only the age-related items identified for the following components:

Preliminary Treatment (Headworks)

- Alternative #3 – New Sewage Grinder and Grit Removal Replacement

Oxidation Ditches

- Alternative #2 – North Ditch Rotor Replacement

Secondary Clarification

- Alternative #2 – In-Kind Replacement

Disinfection

- Alternative #2 – Refurbishment

Age Related

- Alternative #2 – Refurbishment

Option #2 – This approach includes addressing the age-related items plus the addition of a new screen for the headworks and adding a 3rd secondary clarifier to improve the operation and performance of the facility.

Preliminary Treatment (Headworks)

- Alternative #3 – New Screening and Grit Removal Replacement

Oxidation Ditches

- Alternative #2 – North Ditch Rotor Replacement

Secondary Clarification

- Alternative #4 – Increase Number of Secondary Clarifiers

Disinfection

- Alternative #2 – Refurbishment



Age Related

- Alternative #2 - Refurbishment

The total project cost will range from \$4,000,000 to \$5,700,000 depending on which alternatives are included. A summary of the costs for each option by funding source is provided in the table below.

Item	Proposed Project Option #1		Proposed Project Option #2	
	State Funding	USDA Funding	State Funding	USDA Funding
Estimated Construction Cost ⁽¹⁾	\$3,035,000	\$3,035,000	\$4,400,000	\$4,400,000
Total Project Cost	\$4,000,000	\$4,000,000	\$5,700,000	\$5,700,000
Funding Sources				
State Engineering Subsidy ⁽²⁾	\$132,000	\$132,000	\$170,000	\$170,000
State Construction Subsidy (40%) ⁽³⁾	\$1,500,000	----	\$2,000,000	----
State CWSRF Loan ⁽⁴⁾	\$2,368,000	----	\$3,530,000	----
USDA Grant (Est. @ 40%) ⁽⁵⁾	----	\$1,547,000	----	\$2,212,000
USDA Loan ⁽⁶⁾	----	\$2,321,000	----	\$3,318,000
Annual Loan Payment (Estimated)	\$105,000	\$100,035	\$157,500	\$143,000
Projected Increase in Sewer Rates Per Quarter ⁽⁷⁾	\$28.70	\$27.30	\$43.00	\$39.00

Notes:

1. The estimated construction cost is based on construction in 2022.
2. The State subsidy for the engineering is 50%.
3. The State construction subsidy is 40%, not to exceed \$2M.
4. The State CWSRF loan is 2% @ 30 year term.
5. The Town is eligible for up to a 45% USDA grant, but a 40% grant is estimated.
6. The USDA loan intermediate rate is 1.75% @ 30 year term.
7. Based on 915 sewer customers.

For the State funding, the first loan payment is due one year after the completion of construction or late in 2023. For the USDA loan, the first interest payment will be due mid 2022. This timing will have an impact on when the sewer rates will need to be increased.

For the smaller project scope under Option #1, the State and USDA funding packages have a similar annual loan payment and increase in the sewer rates. The benefit of the State funding is that the first loan payment is not due until late 2023 or early 2024, so pursuing the State funding for this option could be more beneficial for the Town.

With the larger project scope under Option #2, the USDA funding package is more beneficial for the Town if a 40% grant is received as it has a lower annual loan payment and increase in the sewer rates.