

BRUNSWICK SEWER DISTRICT
Board of Trustees Public Meeting & Workshop
23 October 2013

Approved Minutes

Call to Order

The Board of Trustees Public Meeting and Workshop of the Brunswick Sewer District Board of Trustees was called to order by GM Blanchette at 7:15 pm on Wednesday, 23 October 2013, in the Board Room at District Offices at 10 Pine Tree Road, Brunswick, Maine. A prepared agenda was noted.

Members present: Chair Priest, Vice Chair Sartoris, and Trustee Green.

Others present: General Manager Blanchette, Assistant General Manager Pontau, Treatment Plant Supervisor Mr. Greg Thulen, Mr. Victor Krea, P.E. and Mr. Ed Leonard P.E. from Wright Pierce, Mr. Stuart Kay from Topsham Sewer District, and Mr. JT Leonard from *The Times Record*, and Mrs. Bonnie Shippen (Minutes).

Members Absent: Finance Manager Caron, Trustees Barbour and Harvey.

Meeting Advertisement

The meeting was advertised in the Friday, 04 October 2013, edition of *The Times Record*.

Times Record Article “District Sees Need for \$22 M Upgrade”

GM Blanchette noted the front page article in *The Times Record* regarding the need for the upgrade of the Treatment Plant. He noted that the intent was to encourage the public to come to this meeting and noted there were no members of the public present.

Purpose of Public Meeting & Workshop

GM Blanchette noted the purpose of the Public Meeting & Workshop is to receive public input following a presentation of recommended upgrades to the Wastewater Treatment Facility and to review the project cost and financial impacts.

Slide Presentation of Recommended Treatment Plant Upgrades

Chair Priest turned the meeting over to AGM Pontau to present the power point presentation.

AGM Pontau noted that the power point slides are designed to create conversations regarding the Plant upgrade. He presented the power point explaining the evaluation process and need for the recommended upgrades.

Plant History

- Original construction: 1966 – 1967.
- Secondary treatment: 1989 – 1991.
 - a. Online April 1, 1991.
 - b. Cost \$12 Million.
- No major capital since 1991.
- No current treatment plant bond debt.

Project History

Treatment Plant Supervisor Mr. Greg Thulen gave a list to AGM Pontau noting improvements that needed to be completed.

- Known Capital Improvements Needed Soon:
 - a. Outfall relocation – permit driven.
 - b. Roof and structure improvements.
 - c. Worn equipment.
 - d. Change in waste – climber screen vs. grinder.
 - e. Should the project be tackled individually?
- Contract with Wright-Pierce for Full Evaluation:
 - a. Utilize economies of scale.
 - b. Organize, Prioritize, and Capitalize.

November 2012 Evaluation:

AGM Pontau noted that during the evaluation Wright-Pierce was here daily over the course of several weeks examining the following:

- All plant processes, structures, and equipment.
- Review and address permit compliance:
 - a. Outfall.
 - b. Flows and loads.
- Code compliance and safety.
- Building and space utilization.
- Vehicle and equipment storage.
- Long-term operability and reliability.
- Develop recommended improvement plan:
 - a. Phase I (2013 – 2016).
 - b. Phase II (2023 – 2026).

AGM Pontau noted that currently they are only talking about Phase I, and that has been pushed back to 2014.

- Propose financing:

- a. Examine all possibilities.
- b. Evaluate impact on rates.

Supervisory Control And Data Acquisition (SCADA)

- Affects all plant components.
 - a. Improves processes.
 - b. Improves control.
 - c. Increases awareness.
 - d. Reduces response needs.

AGM Pontau noted that implementing SCADA will give computers the ability to control everything. He noted that the \$600,000 cost is only a start and will be a big part of the project. Chair Priest questioned if the Water District implemented this program? AGM Pontau noted that yes they did, and BSD has some things on SCADA, although not nearly as much as we need.

AGM Pontau summarized the project with the following notes and cost estimates:

Replace influent junction structure - \$250,000

- Online in 1967 and the structure is crumbling.
- Receives all flow entering treatment plant from Brunswick, including Brunswick Landing, and Topsham.

AGM Pontau noted that the project all ties together.

Upgrade headworks and septage receiving - \$1,200,000

- Need for mechanical rag removal.
- Ventilation improvements.
- Part of original 1967 plant.

AGM Pontau noted that currently flushable wipes are being ground up but there is a need to put in a climber screen to remove them.

Upgrade primary sedimentation basins - \$400,000

- Built in 1967 and retrofitted in 1984 (1 new in 1984).
- Crumbling concrete.
- Structural improvements needed.
- Need new drive motors.

Upgrade primary effluent pumping - \$450,000

- Controls online since 1991.
- Upgrade controls (SCADA).
- Increase efficiency.
- Smaller clapper valves.

AGM Pontau noted that the effluent pumps are currently running all the time and have been online since 1991. There is no SCADA in place for these pumps. He noted they have looked into reducing the size of the clapper valve for a reduction in power use.

Bearing replacement - \$200,000

- Trickling Filter Rotary.
- Secondary Clarifier Drive.

AGM Pontau noted they have both been in continuous use since 1991.

Manhole Modifications - \$50,000

- No inverts causing foaming and sludge buildup.

AGM Pontau noted the manholes that are set up out back are designed like a catch basin and need to have inverts installed.

Upgrade Disinfection - \$350,000

- Install SCADA to improve chemical delivery and optimize chemical usage.

AGM Pontau noted that the staff has done a lot to reduce chemicals and electricity and are looking for ways to continue reducing these costs.

Add De-Chlorination - \$250,000

- Regulatory compliance.
- Install SCADA for chemical control and improved effluent.

Upgrade sludge storage - \$350,000

- Replace piping in the suction and discharge lines.
- Optimize sludge mixing.

AGM Pontau noted that they are looking to get better sludge mix for decreased watering effort and cost.

Upgrade sludge dewatering - \$3,200,000

- Install newer technology. This would improve odor control, efficiency, chemical use and would be space saving.
- Upgrade plant water by replacing pumping and controls installed in 1991.
- Install SCADA.
- Utilize space better.

AGM Pontau noted that half the building would be dedicated to solids handling. Currently it works well, but uses a lot of energy. He noted there are many options that are space saving and lower energy solutions. Currently nothing is SCADA controlled and he noted that the upgrades would change that.

HVAC and plumbing improvements - \$700,000

- Improved space utilization. Office relocation, improve the restrooms, upgrade the plumbing, and add a conference room.
- Meet current building codes.

AGM Pontau noted that HVAC changes are needed for improvements. The District needs to meet current code, which has changed since 1991.

Upgrade Laboratory - \$350,000

- Improve hot water delivery.
- Space utilization with a smaller, efficient lab hood, install island for movement and increase the storage area.

AGM Pontau noted that we have a great staff, but the lab is too small and crowded. He noted there is a lot of equipment covering every empty space. AGM Pontau noted they do well to work around the cramped quarters but it would be more efficient if a larger space was utilized.

Upgrade Alkalinity / pH system - \$550,000

- Meet current codes for chemical storage and feed.
- Upgrade controls to SCADA to control chemical use.

AGM Pontau noted there is a need to increase the storage size and handling for pH and chemical storage to meet code. He noted SCADA would improve its use.

Safety improvements - \$2,500,000

- Meet NFPA 820 standards (Class 1, Division 1[explosion proof]) by creating a separate area for the headworks.
- Life safety improvements if an employee is down or a fire alarm is activated.
- Improve ventilation.

AGM Pontau noted that most of the safety improvements are to meet current standards. He noted the head works area is supposed to be sealed for gasses and there needs to be safety regulations in place in case an employee fell.

Upgrade electrical distribution - \$2,300,000

- Improve power monitoring for savings.
- Improve harmonics
- Safety: E-Stops
- Security system
- Ventilation
- Room lighting (sensors)

AGM Pontau noted that although we have never had a major electrical disaster he would like us to be prepared for one. He noted though a generator can be turned down, the

power needs to be consistent. He noted that SCADA cannot be implemented without electrical system improvements.

Process building improvements - \$1,200,000

- New motor control center as the existing MCC has been online since 1967.
- Access control to meet code requirements.
- Room lighting needs improvement with higher output and energy efficient.

Mechanical / Plumbing Improvements - \$1,000,000

- Ventilation improvements with energy recovery.
- Climate control with a ductless split AC.
- Locker rooms need improvements to accommodate crew size and utilize space.

AGM Pontau displayed a photo of the current locker room. He noted improvements need to be made in ventilation and climate control, noting the only AC is window mounted. He also noted the locker room is too small for the size of the crew.

Roof replacement - \$750,000

- EPDM roof, as the current roof has been there since 1991 and is approaching end of life expectancy. He noted they would like it replaced before it starts to fall apart.
- Fix patches and make mechanical changes.

Outfall Extension - \$800,000

- Will be required for next permit renewal in 2014.
- River classification changes.
- Lower dilution factor and diffuser assembly.

AGM Pontau noted the bank discharge outfall needs to be extended, with diffusers, into the river channel.

New Equipment Garage - \$1,300,000

- Equipment is currently left outside and a garage is needed to protect assets and increase security.
- Increased storage space.
- Increased workspace.

Chair Priest questioned if the space at MRRA is going to work out. AGM Pontau noted yes, it is a temporary solution and is unsure if they want to make it permanent.

Architectural and site improvements - \$3,500,000

- Storage
- Reallocate Space that is user friendly and ADA compliant.

- Security improvements.
- Safety improvements and code upgrades.

Total project cost - \$22,300,000

Presentation of Project Costs Analysis and Financing

AGM Pontau turned the meeting over to Mr. Victor S. Krea, P.E., Project Manager with Wright-Pierce. Mr. Krea noted he worked with GM Blanchette and Mr. Ed Leonard, P.E. with Wright-Pierce, to come up with a Project Cost Estimate, which he distributed to the Board.

Trustee Sartoris arrived at 7:42 pm

Mr. Krea went through the cost of construction, technical services, material testing – asbestos & lead paint, and legal and administrative cost, all with additional fees for contingencies.

Mr. Krea distributed a sewer use charge comparison chart using 2013 rates in Maine, Southern Maine, New Hampshire, Massachusetts and current District rates. He noted that \$512 is the average cost in Maine and the District currently is at \$375. He noted NH & MA fees are less due to smaller utilities. He also compared the average sewer use charges projected to 2017 using a 4% annual inflation. This indicated that the District user rates, with an increase to fund the project, would still be less than the cost for the average Maine home.

Mr. Ed Leonard, P.E. from Wright-Pierce distributed the Construction Cost Estimate worksheet and examined the project's financial estimates. He noted that these were only estimates and is based upon current fees for labor and supplies and could change depending on when the work begins. Mr. Leonard explained that the cost includes special items including mobilization, demobilization, and equipment and supplies that might not be kept but will be necessary to keep the plant and laboratory running during construction. He noted that they accounted for inflation as a 2½ - 3 year midpoint. After that he believes the cost might be higher. It was noted that although contract bids generally come in under projections, it can go either way and these costs were cushioned for that reason.

The Board members questioned if the overall structure was looked at and if all operating costs were included in the estimate. Mr. Leonard noted the whole structure was examined and the operating costs were factored into the estimate. He noted that the plant still needs to operate and cost will increase for possible outsourcing of sludge, yet overall operating cost will decrease due to non-use of existing presses.

Mr. Stuart Kay from Topsham Sewer District noted that the cost estimate does not take into account that the TSD will be paying approximately \$2.8 to \$4 million of those cost as part of the contract agreement between BSD and TSD.

GM Blanchette noted that the interest rates for a bond is currently very low. He also noted that the evaluation was completed based on a 2013 start date. He would like the Board to take their time to evaluate this project, but take into consideration that the work does need to be completed and the current economy might help produce more favorable bids.

Trustee Green noted that when rate increases are discussed the breakdown is either annually or quarterly increases. He believes that increased amounts should be broken down

into monthly cost like other services. Trustee Green noted that in comparison to water, electricity, and phones, the District provides an essential service at a low cost.

Public Comments and Questions

There were no members of the public to present questions.

Remarks from the Chair

Chair Priest thanked the Trustees present, Mr. Krea and Mr. Leonard, and District Staff for their time and effort.

Adjournment

There being no further business before the Board of Trustees the workshop was closed at 8:14 pm.

Attest: _____

Thomas S. Green

Treasurer, Board of Trustees