TOWN OF BLANDFORD
WATER DEPARTMENT
1 Russell Stage Rd
Blandford, MA 01008
413.848.4279 x 304

MEETING MINUTES
BLANDFORD WATER COMMISSION
NOVEMBER 16, 2023
4:30 P.M.

1. OPEN SESSION:

Meeting Opened at 4:47 P.M.
In Attendance: Mariusz Jedrychowski of Wright & Pierce, S. Grondin, OIT2, P. Thayer, Commissioner, G. Avery, Water Superintendent, M. Keier, Commission Chairman, K. Shaw, Administrative Assistant, Brad Curry, Commissioner arrived at 5:30 pm.
Meeting is being recorded.

2. EXAMINATION OF RECORDS OF PREVIOUS MEETINGS:

a. Review of Meeting Minutes of October 19, 2023.

MOTION: M. Keier made a motion to accept the Minutes of October 19, 2023, as written. B. Curry Seconded.
All in Favor.

3. ACTION ITEMS

a. No Action Items.

4. UNFINISHED BUSINESS FROM PRIOR MEETINGS:

a. Water Meter Project Update

A reading hasn't been done in several months and one was done today and it isn't registering. The hand held reader is saying it read, but there is a breach in it from the hand held reader to the computer. Karen will contact EJP to have them look into it.

Karen advised the Commission the 2nd quarter water bills will be done next week and mailed for December 1, 2023 with a due date of January 1, 2024. Gordon advised the

fire extinguisher billing for the Town and the 2 McDonalds should be a part of this. As it is to be for the first bill of the new year it actually should be billed for Quarter 3 which is the first issue date for 2024. They will be billed at that time.

b. Water Department Trailer Registration

Brad Curry contacted Adam Dolby by phone during the Commission meeting and left a voice message to follow up on the trailer registration. He requested Adam contact him or Karen with the information on the status.

c. Town Water Bill Abatements – Legal Ruling on Debt

At a prior Commission meeting the Town Administrator was to seek a ruling from K P Law and it was reported that they referred him to DLS legal as to whether when doing these abatements, the debt could also be abated. He advised he would seek out the opinion and report to the Commission prior to the next billing. The Commission has not received an update and will not approve the abatements received and will bill the Town bills for quarter 2 as well.

Gordon told the Commission about a recent conversation with the Treasurer/Collector that in actuality lacking a signed financial agreement the indirect costs should not be billed to the Water Department. Though requested by the Water Department, they have never received an actual amount for indirect costs and what it covers.

In order to resolve the issue of abating Town bills in lieu of paying a certain amount of indirect costs, Karen will do a draft letter for the Water Commission to review at their next meeting and once done, send it as an attachment to an email to the Town Administrator and those departments involved. A copy to the Selectboard may be sent as well.

5. NEW/OTHER BUSINESS:

a. Mariusz Jedrychowski of Wright & Pierce Update on CIP

Mariusz Jedrychowski went over the current CIP and would like to finalize it so it can be put out to the DEP which is a requirement in order to go forward. Prior to submission to the DEP he reviewed the projects per the current CIP and the current CIP referred to is made a part of the minutes as an attachment. Each section was reviewed by Mr. Jedrychowski of Wright & Pierce and reference was also made relative to possible grants that could be obtained. A possible 40% grant may be obtainable. Specifics were reviewed and the projects are favorable. A reach out to representative Mark was mentioned but it is not mandated.

Upon his arrival to the Commission Meeting, Brad Curry reviewed the CIP and is in agreement with the contents and plans as laid out.

MOTION: M. Keier made a motion to accept the CIP as presented by Mariusz Jedrychowski.
Pete Thayer Seconded
All in Favor

As to SCADA upgrade, all are in agreement and the contracts have been signed. There will be a kick off meeting and preconstruction meeting with the contractor. Gordon Avery will be in attendance as well as Steve Grondin and it would be good to have a Commissioner in attendance as well as Bernie St. Martin. The SCADA Project is receiving a 40% grant. A look at the scope of work for the project and getting pricing from Elm Electric for the electrical service upgrade would be advantageous. National Grid has done work and will be considered along with Eversource as well. Gordon will get some dates together and present them for the preconstruction meeting. The State DEP will be a participant as well.

A proposal is being worked on for a rate study and the individual who will work on the rate study works at Wright Pierce as a Finance Manager and has experience in getting grants, loans and subsidies. Gordon feels it would be good to reach out to State Representative Paul Mark for a tour of the plant and his support.

Gordon discussed the Clean Water Trust and the State's willingness to grant loan forgiveness in the amount of $446,151 – 38.2% (Water Treatment Plant Upgrade) and $15,000 – 20% (Water Main Replacement & Storage Evaluation). Questions were raised as to why the Water Department is not scheduled to receive the $15,000 back seeing as it has been forgiven and already paid out of ARPA funding. This will be reviewed with the new Town Administrator when s/he is brought in.

b. Western Massachusetts Waterworks Association Membership

This membership is for individual employees and not a Town membership and it will be offered to the employees of the Water Department to determine if they individually have an interest in signing up. The cost is $35.00 per individual. Karen will reach out to Water Department employees to determine if they would like to be a member for the first of the year.

c. Classification and hourly rate for Water Department Administrative Assistant

Karen has requested of the Commission a classification change and with the change an hourly increase of $2.50/hour.

The Commission has requested a copy of the Town Personnel Policies and the union contract to review as to vacation, sick time and holiday time prior to making a decision.

d. Sick, Vacation, Holiday allowance for Steve Grondin, OIT2.

As Steve works 20 hours a week a benefit package for him was discussed and will be reviewed when the Commission has reviewed the Personnel Policies and the union contract.

e. Water Superintendent Update

Gordon advised the new Water Department truck has been registered and a lockbox has been purchased. The lockbox was at a reduced price. A snowblower has also been purchased. In December, the truck will have a plow and safety lights will be installed. A few solar lights were installed inside the shed. It would be good to have regular lights hardwired in versus the solar however.

Lead & Copper testing has been distributed.

Meter read was done and has been discussed.

6. MEETING ADJOURNED

Meeting adjourned at 6:47 p.m.

Respectfully Submitted,

Karen Shaw, Administrative Assistant
Water Department

WATER COMMISSION

Michael Keier, Chairman

Brad Curry, Clerk

Peter Thayer, Member

Section 6 Capital Improvement Plan

6.1 Objective

The goal of the capital improvement plan (CIP) is to meet the following objectives:

- Comply with items noted in the consent order
- Correct items identified in previous studies
- Improve operational efficiency and maintain building facilities
- Dovetail recommended improvements with regulatory requirements and impacts.

6.2 Evaluation Criteria

Potential pump station and treatment facility improvements can be identified from a number of sources/parameters. In addition to the physical inspection of the facilities, the age of the equipment, performance of the pumps, projected increases in capacities, and potential regulatory changes can all necessitate upgrades to the facility. Results of the distribution system and treatment facility inspections are listed in Sections 4 and 5, respectively.

6.2.1 Age-Based Parameters

Water infrastructure has a finite service life. This service life can vary, but for the purposes of determining which components may warrant replacement the following service life expectancies were used to help identify potential improvements. It is understood that these are generalities and often can be exceeded with good maintenance and care of the facilities.

- WTP/Pump station, mechanical components (pumps, electrical, instrumentation) - 20 years
- WTP/Pump station internal piping and valves - 50 years
- WTP/Pump station, building, precast concrete structural components - 50 years

6.3 Capital Improvement Plan

The proposed capital improvement plan has been developed from analyses presented in this report. All improvements and recommendations have been prioritized based on the following criteria:

- Condition of existing infrastructure
- Operational efficiency
- Water quality
- System reliability

Approximately 23% of the distribution system, or 3 miles, is at least 100 years old, and approximately 0.5 miles, or 4% of the pipes, are 75 to 100 years old With approximately 27% of the distribution mains approaching, or beyond, an expected service life of 100 years, it is recommended that the District make significant investments (as included in the CIP) over the next 20-years to renew aging water mains. Recommended improvements have been organized into the three prioritized categories: short-term, intermediate-term, and long-term.

6.3.1 Short-Term Improvements (High Priority)

Short-term improvements are the highest priority recommended for completion during the period from year 2024 to 2029. Short-term project recommendations generally include projects to resolve items listed in the

administrative consent order, projects that affect regulatory compliance, addition of system storage and fire protection, or the need to address critical aging infrastructure.

6.3.1.1 Distribution System

The short-term priority recommended projects for the distribution system are presented in **Table 6-1** including a description of the project, justification, and estimated construction cost.

A summary of the short-term priority projects for the distribution system is presented below:

- **Water Storage Tank** – There is currently no active water storage within the Blandford water system for equalization or fire flow. Construction of a new water storage tank would provide potable water storage for public use and as a supplemental source of water for firefighting. There are water main upgrades required in order to accomplish the goals of implementing a new storage tank as well.
- **North Street Booster Pump Station** – The North Street Booster Pump Station is in need of a complete rebuild at the existing site including the building, components, (pumps, piping, tanks, generator) and an electrical upgrade.
- **Water Main Improvements** – The highest priority water main replacements are Russell Stage Road, Main Street, and Otis Stage Road for improving water quality, hydraulics, and providing fire flow.
- **Valve Exercising & Maintenance** – Developing a valve exercising and maintenance program will ensure the appropriate useful life of valves in the distribution system.
- **Hydrant Exercising & Maintenance** – Developing a hydrant exercising and maintenance program as well will ensure the appropriate useful life of hydrants in the distribution system.
- **Water Main Flushing** – Flushing of water mains will contribute to improved water quality in the distribution system by removing precipitates that have settled within the pipes.

Table 6-1 Short Term Improvement Distribution System Projects Cost Estimate

Project	Components	Justification	Estimated Construction Cost
New Water Storage Tank	Civil Site Work, Water Tank & Appurtenances, Electrical/Instrumentation, Mixing System, Associated Water Main Upgrades	Add Storage to the Water System	$6,063,600
Replace North Street Booster Pump Station	Demolition, Civil Site Work, Architectural, Process, Mechanical, Electrical & Instrumentation	Replace Undersized Infrastructure	$2,074,920
Water Main Improvements	Russell Stage Road, Main Street, and Otis Stage Road	Improve Water Quality, Hydraulics, and Provide Fire Flow	$3,844,620
Develop Valve Exercising and Maintenance Schedule	Scheduling	Promote Longevity of the Distribution System	$5,000
Develop Hydrant Exercising Schedule	Scheduling	Promote Longevity of the Distribution System	$2,500

Project	Components	Justification	Estimated Construction Cost
Develop Water Main Flushing Schedule	Scheduling	Improve Water Quality	$2,500
Evaluate Automatic Dead-End Flushing	Evaluation	Improve Water Quality	$5,000
Total Estimated Construction Cost			**$11,998,140**

The distribution system has many upgrade needs and significant investments are recommended within the first 5 years and throughout the planning period to sustain the water system. The total estimated construction cost classified as highest priority for the BWD total approximately $12M.

6.3.2 Water Treatment Plant

The short-term priority recommended projects for the water treatment plant are presented in **Table 6-2** including a description of the project, justification, and estimated construction cost.

A summary of the short-term priority projects for the distribution system is presented below:

- **Electrical Service to WTP** – Construct a comprehensive upgrade to meet demand.
- **Fire Alarm System** – Conduct testing of the fire alarm system as required annually.
- **Ozone System** – Coordinate and schedule a site visit with the manufacturer to assess the status of the ozone system for reactivation. Additionally, the contact tanks should be cleaned and evaluated for a bypass system.
- **GAC Media** – Develop a schedule for media replacement.
- **Filter Backwashing** – Install larger diameter, permanent backwash piping and develop a backwashing schedule and procedure.
- **Raw Water Intake** – It is suspected that the shallow raw water intake area may be contributing to poorer raw water quality into the treatment facility due to higher temperatures. Conduct a study to evaluate the current location and depth of the existing intake screens and potential for an extension or relocation to a deeper part of the reservoir.
- **Chemical Pumps** – Replace the chemical pumps for soda ash and sodium hypochlorite.

Table 6-2 Short Term Improvement Water Treatment Plant Projects Cost Estimate

Project	Components	Justification	Estimated Construction Cost
Upgrade Electrical Service	Main Electrical Service Disconnects, Automatic Transfer Switch, Service Feeders, Replace Transformer, Install Underground Service Cables	Meet Building Service Demand	$178,500
Fire Alarm System Testing	Test Fire Alarm System	Required Annually	$1,500

Project	Components	Justification	Estimated Construction Cost
Raw Water Intake Evaluation	Evaluation	Improve Raw Water Quality	$25,000
Evaluate Ozone System for Reactivation, Cleaning, and/or Bypassing	Evaluation by Manufacturer and Wright-Pierce	Improve Water Quality	$10,000
Develop GAC Maintenance and Replacement Schedule	Schedule	Promote Longevity of Filtration System, Improve Water Quality	$2,500
Improve GAC Backwash Process	Increase Backwash Pipe Size and Connection	Promote Longevity of Filtration System	$30,000
Chemical Pump Replacement	Sodium Hypochlorite and Soda Ash Metering Pumps	Promote Operation and Backup	$40,000
Total Estimated Construction Cost			**$287,500**

The water treatment plant has many upgrade needs as well and significant investments are recommended within the first 5 years and throughout the planning period to sustain the water system. The total estimated construction cost classified as highest priority for the BWD total approximately $288K.

6.3.2 Intermediate-Term Improvements (Medium-Priority)

Intermediate-term improvements are recommended for completion between year 2028 and 2038. The intermediate priority projects are aimed at improving system reliability/operational efficiency, replacement of aging water mains, and replacement of infrastructure that has exceeded its design life.

6.3.2.1 Distribution System

The intermediate-term priority recommended projects for the distribution system are presented in **Table 6-3** including a description of the project, justification, and estimated construction cost.

A summary of the intermediate-term priority projects for the distribution system is presented below:

- **Water Main Improvements** – A number of additional water main replacements are recommended to be completed, however are less critical for the near term. These include North Street, Chester Road, Old Chester Road, Maple Lane, Wyman Road, and Herrick Road. A schedule should be developed to replace these aging mains over time.

Table 6-3 Intermediate Term Improvement Distribution System Projects Cost Estimate

Street	New Pipe Size & Type	Length (LF)	Cost ($364/LF [1])
Chester Road (Pressurized)	8" DI	2,000	$744,000
North Street (Pressurized)	8" DI	3,250	$1,209,000

Street	New Pipe Size & Type	Length (LF)	Cost ($364/LF [1])
Old Chester Road	8" DI	7,500	$2,790,000
Maple Lane	8" DI	600	$223,200
Wyman Road	8" DI	700	$260,400
Herrick Road	8" DI	1,500	$558,000
Total Estimated Construction Cost			**$5,784,600**

[1] Includes construction contingency.

6.3.2 Water Treatment Plant

The intermediate term non-water main recommended projects are presented in **Table 6-4** including a description of the project, justification, and estimated construction cost.

A summary of the intermediate-term priority projects is presented below:

- **Aqueous Ammonia System** – The ammonia system was removed from the treatment plant after having been previously used for disinfection through the production of chloramines in the system. Due to the concerns regarding the use of chlorine for disinfection and the ozone system for disinfection, it is recommended to explore the alternative option of restoring the ammonia system.
- **Standby Power** – Replace existing generator to meet demand.
- **Long Pond Reservoir Watershed Management**
- **Operations & Maintenance Schedule**
- **Replacement of Components**
- **HVAC Upgrades**
- **Architectural Upgrades**

Table 6-4 Intermediate Term Improvement Water Treatment Plant Projects Cost Estimate

Project	Components	Justification	Estimated Construction Cost
Replace Standby Power	Generator	Meet Demand Load	$74,000
Evaluate Reactivation of Aqueous Ammonia System	Evaluation	Improve Water Quality	$10,000
Evaluate Long Pond Reservoir Watershed Management	Bank Stabilization and Restoration	Reduce Raw Water TSS Loading	$10,000
Develop Operations and Maintenance Activities and Schedule	Operations and Maintenance Schedule	Improve Water Treatment Process	$10,000

Project	Components	Justification	Estimated Construction Cost
Replace Components That Have Exceeded Useful Life	Miscellaneous (pumps, valves, piping)	Replace Aging Infrastructure	$100,000
Miscellaneous Architectural Maintenance	Painting and Patching Surfaces	Maintenance of Existing Building	$67,900
Miscellaneous HVAC Upgrades	HVAC and Plumbing (Exhaust Fans, Heat Pump Systems, Piping, Emergency Showers)	Update Existing Infrastructure	$262,200
Total Estimated Construction Cost			**$534,100**

The total estimated construction cost of the non-pipe related projects classified as medium priority for the BWD total approximately $534K.

6.3.3 Long-Term Improvements (Low-Priority)

Long-term improvements are recommended for completion between the years 2038 and 2043. The low priority projects are aimed at replacement of infrastructure that has exceeded its design life and accomplishing noncritical projects.

6.3.3.1 Distribution System

The long-term priority recommended projects for the distribution system include any action items remaining after the short-term and intermediate term projects have been completed.

6.3.3.2 Water Treatment Plant

The long-term priority recommended projects for the distribution system are presented in **Table 6-5** including a description of the project, justification, and estimated construction cost.

A summary of the long-term priority projects for the distribution system is presented below:

- **Existing Storage Tanks**
- **Coagulation System**
- **Alternative Water Sources** – Perform an assessment of alternative groundwater sources in addition to the surface water reservoir.

Table 6-5 Long Term Improvement Water Treatment Plant Projects Cost Estimate

Project	Components	Justification	Estimated Construction Cost
Demolish Existing Storage Tanks	Demolition of Tanks, Soil Characterization		$150,000
Evaluate Coagulation System Prior to Filtration	Study	Improve Water Quality	$15,000

Project	Components	Justification	Estimated Construction Cost
Investigate Alternative Water Sources	Desktop Study	Provide Backup Source	$25,000
Total Estimated Construction Cost			**$190,000**

The total estimated construction cost of the projects classified as low priority for the BWD total approximately $190K.