

**MINUTES OF THE
NORTH SHORE WATER COMMISSION
MEETING OF WEDNESDAY, DECEMBER 9, 2020**

The North Shore Water Commission held a meeting on Wednesday, December 9, 2020 using an internet-based conferencing platform called Zoom.

Meeting was called to order at 8:00 A.M. by Mr. Botcher.

Present:

Scott Botcher, Chair (Fox Point)
Charlie Imig, Secretary (Glendale)
John Edlebeck, Member (Whitefish Bay)

Also Present:

Eric Kiefer, Plant Manager & Recording Secretary
Brooks Angell, Operations Supervisor
Gerald Groth (Baxter & Woodman)
Scott Brandmeier & Jim Voigt (representing Fox Point)

UNATTENDED OPERATIONS STUDY

Gerald Groth from Baxter & Woodman provided the Commission with a report which was distributed ahead of the meeting. The report describes the feasibility of operating the Water Treatment Plant (referred hereafter as Plant) and member pumping stations in a new way allowing for the plant to be unattended/unstaffed daily for 8 to 12 hours.

Mr. Groth explained the term “unattended operations” used in this report has a different meaning than how it was used in a previous study in 2015. In that report, the Commission asked Clark Dietz to investigate fully automating the plant so that the plant would continuously treat and pump water—with staff not being present for a portion of the day. In this report, the Commission asked Baxter & Woodman to investigate the feasibility of completely shutting down the Plant for up to 8 continuous hours during weeknights and 12 hours during weekend nights. While the Plant is shutdown, the pumping stations of Fox Point, Glendale, and Whitefish Bay would pump water out of their respective tanks into the distribution system. When staffed, the Plant would treat and pump water to refill member utility tanks while pressurizing the distribution system.

Mr. Groth stepped through the report as Mr. Kiefer advanced the report on his shared computer screen.

Some notable comments made during the discussion:

- Although the Plant should be able to shut down for a maximum of 12 hours under low-demand periods, it may be necessary to extend operations of the Plant for an additional 30 minutes during periods of peak demand.
- WDNR staff was asked about this mode of operation. Specific questions were asked by Baxter & Woodman; Catherine Wunderlich provided answers which are shown in the report.

- Mr. Groth explained how the Plant would respond to a drop in system pressure. In that event, the high service pumps would start up—along with the phosphoric acid and ammonium hydroxide feed systems—to provide the system with adequate pressure. Staff intervention would be necessary to determine why the high service pumps started and to turn them back off.
- In response to a comment posed by WDNR, Baxter & Woodman discussed the potential for filter performance problems if the rapid sand filters were turned on and off on a daily basis. Normally, filters run continuously until they need to be taken out of service. Operating the filters in this new way will be problematic as turbidity will pass through.
 - The solution proposed in Baxter & Woodman’s report, which was originally presented by plant staff, involves a novel filter recirculation system which would allow water from the bottom of the filter to be pumped to the top of the filter. This “recirculation” mode would be engaged at night so the filters can operate continuously until taken out of service.
 - Additional filter improvements are also recommended by Baxter & Woodman which include the installation of new loss of head (LOH) sensors and to replace the Hach 1720D turbidimeters which are now obsolete by the manufacturer.
- Detailed policies and procedures for unattended operations would need to be further developed and implemented as the Commission prepares to transition to unattended operations; WDNR would need to review and approve the new mode of operation when the Commission is ready and capable of making the transition.
- Various SCADA, security, and surveillance improvements were recommended.
- The capital improvement plans suggested by Baxter & Woodman allow the Commission to incrementally make improvements from now through 2023. This allows flexibility so that other planned capital improvements can be made at the same time.

Mr. Edelbeck commented that he is very pleased with the report and the plan for moving to unattended operations. He believes the plan is feasible and can be implemented over the next few years. He also commented that the switch to unattended operations at night would make the Commission a better organization.

Mr. Kiefer noted that unattended operations would be great for the Commission; however, it only works if all 3 member stations are operational. If a member pumping station goes down, it will be necessary for the Commission to staff the Plant at night until the problem gets resolved. He commented that member utilities and the Commission should coordinate projects to prevent that from happening.

Mr. Kiefer invited the Commissioners to send any questions or comments to him; if he can’t answer them, he will ask Mr. Groth. The Commission thanked Mr. Groth for the presentation. No additional action was taken by the Commission.

MINUTES

It was moved by Mr. Imig, seconded by Mr. Edlebeck, and unanimously carried to approve the minutes for the meeting held November 11, 2020.

MONTHLY REPORT OF PLANT OPERATIONS

Mr. Kiefer provided the Commission with a report regarding plant operations. He commented that pumpage was slightly up in comparison to last year November. He reported the mussel control feed system stopped feeding in November and muriatic acid is now being fed through that system in an attempt to clean the carrier water line. The report was placed on file without any motion.

ANNUAL OPERATING BUDGET

The monthly reports were put on file without motion.

MONTHLY BILLS

It was moved by Mr. Edlebeck, seconded by Mr. Botcher, and unanimously carried that payments be approved and authorization be given to the Fiscal Agent to make such payments.

<u>Vendor</u>	<u>Amount</u>
Alexander Chemical (treatment chemical: sodium hypochlorite)	\$3,106.65
Allied Electronics (power supply and terminals)	\$525.69
Amazon (filters, respirators, bucket slings, gloves, conductivity standard, angle grinder, lamps, plumbing supplies, stoppers, center pull towel, chainsaw, and helmet.	\$894.60
Concentra (pre-employment testing)	\$189.50
Diggers Hotline (joining fee and standard email delivery of tickets)	\$108.70
Diversified Benefit Services (section 125 plan administration)	\$95.50
Fastenal (split lock washers)	\$5.21
Grainger (fan, punchdown tool, telecom supplies, phosphate standard, center pull towel, and electrical plug)	\$1,234.99
Great America (lease payment for copier)	\$100.00
Hawkins (treatment chemicals: ammonia and phosphoric acid)	\$1,756.62
Home Depot (impact wrenches)	\$398.00
Midland Scientific (spore suspensions for autoclave)	\$131.50
Mulcahy Shaw Water (reagents for chlorine analyzers)	\$480.50
Northern Lake Service (compliance and corrosion monitoring)	\$635.30
Office Copying Equipment (maintenance payment for copier)	\$47.38
Process Research Solutions (lead and copper corrosion consultant)	\$10,475.03
Rotroff Jeanson (monthly accounting services)	\$1,125.00
Quill (office supplies)	\$154.31
Securian (life insurance)	\$149.04
Spectrum (internet and phone)	\$594.79
USABluebook (adapter for Hach DR3900, phosphate reagents, potassium permanganate reagent, conductivity standard, and autoclave thermometer)	\$956.39
Village Ace Hardware (handle and plunger)	\$13.41
WaterStone Bank (credit card - General Fund)	\$498.67
-- American Water Works Association (standards):	\$142.00
-- AT&T (monthly internet charge):	\$69.55

-- Google (google apps for work and extra storage): \$84.00		
-- <u>pcsoftwareinfo.com</u> (pdf software): \$56.04		
-- <u>pdf.u-bill.com</u> (pdf software): \$85.62		
-- StraightTalk (cell phone charges): \$45.65		
-- Zoom (monthly fee): \$15.81		
We Energies (Bender Electric)		\$13,140.36
We Energies (Bender Gas)		\$982.21
We Energies (Green Tree Electric)		\$18.42
We Energies (Henry Clay Electric)		\$17.99
We Energies (Klode Electric)		\$3,826.86
We Energies (Klode Gas - ESTIMATE)		\$768.28
Wisconsin State Lab of Hygiene (fluoride analysis - ESTIMATE)		\$26.00
	SUB-TOTAL	\$42,456.90
<u>Capital Fund</u>		
Mulcahy Shaw Water (chlorine analyzer replacement)		\$5,600.00
	SUB-TOTAL	\$5,600.00
	TOTAL	\$48,056.90

RESERVOIR UPGRADE PROJECT UPDATE

Mr. Kiefer provided the Commission with a detailed report regarding a problem that was discovered on Monday, December 7. Plant staff documented how the newly constructed reservoir overflow pipe detached from its supports and now floats up and down with the reservoir level. The pipe was not designed nor was intended to move. Since it floats all the way to the ceiling of the reservoir, it does not allow water to transfer from reservoir #1 to reservoir #2 as intended when the reservoirs are configured to operate in "series mode."

When the problem was discovered, Mr. Kiefer contacted Chairman Botcher and Legal Counsel. Consequently, action has been taken by Mr. Kiefer given their direction and recommendations. SEH, Strand Associates, and Clark Dietz (contracted by SEH to perform certain tasks) are engineering firms that have been involved in this project. As such, Mr. Kiefer has been advised by Legal Counsel to retain an expert—not involved in this project—to provide a report to the Commission regarding what went wrong. Baxter & Woodman has been retained to do that.

The inspection will take place 9:30 AM on Thursday, December 10. Various entities have been invited to attend including: SEH, Strand Associates, Baxter & Woodman, J.H. Hassinger, and WDNR.

Until the problem is resolved, the Commission will operate the reservoirs in "parallel mode." Furthermore, Mr. Kiefer reported that Legal Counsel advised the Commission to withhold payments to SEH and J.H. Hassinger until we get more information. Therefore, Mr. Kiefer is recommending

that the payment request NOT be approved by the Commission at this time. Instead, he recommended that the Commission hold a special meeting next week--after the inspection--to discuss the findings from Baxter & Woodman.

Mr. Botcher agreed and instructed Mr. Kiefer to poll the Commissioners and find a time next week that would work for a Special Meeting.

In discussion, Mr. Kiefer explained how SEH's design was peer-reviewed by Strand Associates at 90% and 99% completion. At the time of their review, the plans given to them did not show the straps. They recommended that SEH review and address the need for restraints on the pipe that was floated. Restraints were added in the final project documents.

Mr. Imig asked about the inspection of this pipe during construction. Mr. Kiefer noted that Clark Dietz was retained by SEH to do field inspections. He remarked that inspections were made.

No action was taken by the Commission regarding this matter.

HIGH SERVICE PUMP #5 REMOVAL UPDATE

Mr. Kiefer noted that little effort was put into the high service pump #5 removal project since the last meeting. The payment request is for a few staff hours.

It was moved by Mr. Botcher seconded by Mr. Imig, and unanimously carried to approve the payment request and to authorize payment to vendors in the amount of \$148.23 as indicated in Mr. Kiefer's memo dated December 9, 2020.

LEAD AND COPPER UPDATE

Mr. Kiefer provided the Commission with a report regarding lead and copper corrosion control. He explained that after several meetings with WDNR; it is his understanding that WDNR does not believe lead and copper corrosion control by Fox Point, Glendale, and Whitefish Bay are optimized and will likely send letters to the member utilities instructing them to optimize their program.

Mr. Kiefer explained that member utilities have first-draw lead and copper samples that normally would not trigger further optimization. Normally, the 90th percentile lead level (in each system) gets compared to the action level of 15 ppb. If the 90th percentile level exceeds the action level, optimization is required. WDNR noted that Fox Point would have exceeded the action level if they did not take 10 additional samples. Although this term is not defined in regulatory code, WDNR staff call this a "triggered lead action level exceedance." This is one factor WDNR staff used in their rationale.

Another subset of data used by WDNR are sequential lead and copper samples taken at 1 home in Fox Point (3 sampling events over a year), 1 home in Glendale (3 sampling events over a year), and 1 home in Whitefish Bay (3 sampling events over a year), and 1 home in Whitefish Bay (4 sampling events over a year). Data shows, as expected, that stagnant water has a higher concentration of lead in the first liter than in subsequent liters. WDNR staff believes they are able to determine if lead and copper corrosion is optimized based on a qualitative analysis of the data. It was Mr. Kiefer's understanding that WDNR was looking for the data to be "flatter." In other words, lead levels in

stagnant water in all of the sequential samples should be at the same relative level.

Mr. Kiefer informed the members that an internal WDNR meeting is supposedly taking place this week (or already took place) to determine if letters were going to be sent to the member communities. If the letters are sent, Mr. Kiefer has provided options for the Commission to consider to optimize lead and copper corrosion control. Those options were listed in his report and were briefly discussed at the meeting.

One particular idea that was discussed at length was routine flushing by the Commission and its general involvement in flushing for improving water quality. Mr. Kiefer commented that there is only so much that can be done by the Commission by adjusting water chemistry. It is generally-accepted knowledge (shown through years of research) that routine flushing improves water quality, and has been shown to improve lead and copper corrosion. He also commented that member utilities have not been routinely flushing; the Commission recently filled a new position--some of that person's time can be committed to flushing.

Mr. Edlebeck agrees that the Commission should get involved in flushing. Because of staffing issues and other factors, it is very difficult for water utilities to consistently flush.

Mr. Imig agrees that the Commission should get involved in flushing and also suggested that each member wait until they receive a letter before doing anything else. Once a letter is received, the information can be brought back to the Commission and a decision can be made about additional remedies.

Mr. Botcher expressed concern that WDNR may not have the authority to ask the member utilities to perform lead and copper corrosion optimization considering how code is written. He invited Mr. Brandmeier and Mr. Voigt as representatives of Fox Point to comment on the matter. They are in agreement that the Commission's involvement with flushing is welcomed. However, they do not believe that additional action by the Commission should be taken. In general, they do not believe WDNR has the regulatory authority to request optimization since it met the standard listed in regulatory code.

It was the consensus of the Commission that no action be taken regarding lead and copper corrosion optimization until WDNR informs member utilities of the need to do so. However, the Commission's involvement in flushing is welcomed regardless of WDNR's action.

No action was taken regarding this matter.

OPERATIONS AND MAINTENANCE REPORT

1. Plant staff started feeding muriatic acid through the Klode polymer line with the intention of cleaning the line over the winter months.
2. Plant staff drained the 1962 and 1972 clearwells in the basement of the Water Filtration Plant for the required 5-year inspections. SEH performed the inspections.
3. The reservoir overflow system was installed by JH Hassinger on November 19; plant staff

performed some brief testing on the overflow system and found that at typical flow rates the reservoir starts to overflow at 14.3 feet water.

4. Plant staff operated the primary switchgear at the Water Filtration Plant and a similar switch at Klode Park Pumping Station in preparation for We Energies scheduled maintenance. One electrical line will be de-energized for up to 48 hours.
5. Plant staff have been preparing to cap off reservoirs #3 and #4. Both reservoirs have been pumped down; a plasma cutter has been reserved and all materials have been ordered. This work has been scheduled for the week of 12/14/2020.
6. Plant staff scheduled Five Star Energy Services to cap off the influent lines for reservoirs #3 and #4 on 12/23/2020.
7. Plant staff switched the reservoirs to operate in series on 12/1/2020; however, the interconnect pipe between reservoirs #1 and #2 failed on 12/7/2020 and the reservoirs had to be re-configured to operate in parallel. Reservoir #1 was drained and is ready for an inspection which is scheduled for 12/10/2020.
8. Travis Leanna will start employment with the Commission as a Mechanical Technician on Monday, January 4, 2021.

NEXT MEETING

The next regular meeting was scheduled for Wednesday, January 13, 2021 at 8:00 A.M.; the meeting will be online via Zoom.

ADJOURNMENT

It was moved by Mr. Edlebeck, seconded by Mr. Imig, and unanimously carried to adjourn at 9:17 A.M.

Submitted by:



Eric Kiefer, Plant Manager and Recording Secretary

12/11/2020

Date