

Notes: September 13, 2019
Northport Village Corporation
Utilities Trustees

Present: David Crofoot, Chair; Gordon Fuller, Judy Metcalf

Absent: Mike Lannan

Also Present: Dick McElhaney, Superintendent; Bill Paige, Director of Operations

Minutes: JASM moved/David Crofoot, second: approval of the Minutes of the Meeting of August 16, 2019. Unanimous.

Visitors Concerns: The Trustees reviewed concerns expressed by several residents regarding their utility billing received in late July, 2019. Amy Eldridge is to be thanked for her hard work unraveling the billing issues, including misstated bills; missing bills; failure to record payments received, and failure to deposit payments received. The Treasurer and Superintendent are to be thanked for the extra work they are doing in this regard as well.

Superintendent’s Report

Sewer Department

July 2019 Effluent Monitoring Data

The NVC Wastewater Treatment Plant (WTP) was in full compliance with its wastewater discharge license for the month. There were no license exceedances.

Flow averaged 14,119 gpd compared to 11,429 gpd in 2018. Daily flow ranged from a low of 10,600 gpd to a high of 20,800 gpd during the month. Precipitation for the month was 2.23” versus 1.36” in 2018.

TSS and BOD⁵ averaged 5.1 lbs/day (44.4 mg/l) and 17.1 lbs/day (150 mg/l), respectively compared to 4.5 lbs/day (54.0 mg/l) and 12.2 lbs/day (145 mg/l) in 2018.

See performance table below for this month’s comparisons, averages, year-to-date highs and lows, permit limits, and year-to-date (YTD) exceedances. Testing frequency is continuous for flow; weekly for TSS, BOD⁵, Settleable Solids (S. S.) and Fecal Coliform (April 15 – October 31); 5 days/week for pH; and daily for total residual chlorine (April 15 – October 31).

Monthly Performance Table

Parameters	July	June	May	YTD Lo	YTD Hi	YTD Ave	2018 Ave	DEP Monthly Limit	Exceedances
Flow GPD	14119	14830	11181	7029	29783	15425	15,146	<63,000	0
Precip Inches	2.23	5.46	3.32	1.52	5.53	3.22	4.22	n/a	0
TSS lbs/day	5.1	2.3	1.2	0.8	5.1	1.62	1.97	<76	0
TSS mg/l	44.4	33	13	5.9	44.4	19.2	21.5	<145	0
BOD ⁵ lbs/day	17.1	6.5	3.6	1.5	17.1	4.5	5.10	<107	0

Parameters	July	June	May	YTD Lo	YTD Hi	YTD Ave	2018 Ave	DEP Monthly Limit	Exceed-ances
BOD ⁵ mg/l	150	89	39.6	11.8	150	47.1	60.4	<203	0
TSS% Removal	84.7	88.6	95.5	84.7	98.0	93.8	91.8	>50	0
BOD⁵ Removal	48.3	69.4	86.3	48.3	95.9	83.8	77.9	>30	0
pH lo	6.5	6.6	6.6	6.5	6.7	6.57	6.7	>6.0	0
pH Hi	6.8	6.8	6.9	6.8	7.0	6.92	7.0	<9.0	0
S.S. ml/l	0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	Report	0
TRC mg/l	.02	.03	.02	.02	.03	.02	0.02	<.03	0
F Col/100 ml	3.16	1.53	<1	<1	3.16	1.69	<1	<14-ave	0
F Col/100 ml	<10	<10	<1	<1	<10	4.64	<1	<31-max	0

Note: The last exceedance for flow was **159 months ago (2/2006)**. The last exceedance for fecal coliform was **82 months ago (8/2012)**. The last exceedance for BOD was **57 months ago (9/2014)**. The record annual average low for flow was 12,017 gpd in 2017.

August 2019 Snapshot

The NVC WTP is expected to be in full compliance with its license limits pending the DEP's review of the NVC's discharge monitoring report. Flow during the month averaged 12,235 gpd. The report for precipitation as measured by the Belfast Water District (BWD) at their Little River Station was 5.37 inches.

EPA Administrative Order on Consent Timeline Update

1. ~~By June 30, 2019, complete preliminary engineering study to present new physical plant options.~~ **Completed** by Dirigo Engineering on April 12, 2019 – “Disinfection & Dechlorination Options Review”.
2. ~~By August 31, 2019, complete preliminary resource assessment/planning to identify potential new locations for a new physical plant.~~ **Completed.** Location options identified by Dirigo Engineering on April 12, 2019 – “Disinfection & Dechlorination Options Review”.
3. By **(or before)** October 31, 2019, select location and finalize preliminary design to support the NVC effort to secure funding for the new physical plant (select location by Labor Day 2019) – **Currently in Progress.**
4. By **(or before)** September 30, 2020, secure approval of funding from the residents of NVC **(at their August 2019 or 2020 Annual Meeting)** for financing the new physical plant.
5. By **(or before)** September 30, 2020 complete final design and resource assessment/planning to support land use permitting and formation of construction contract documents for the new physical plant.
6. By **(or before)** December 31, 2020, complete construction of new physical plant.

The NVC must submit semi-annual progress reports summarizing its compliance with the provisions of this Consent Order on or before June 1st and December 1st of each year. Furthermore, whereas, the

Consent Order requires a specific action to be performed within a certain time frame, NVC shall in addition submit a written notice of compliance or non-compliance within 14 days of each deadline.

Revised Notice of Violation (NOV)

The NVC has completed the August make-up testing for fecal coliform required by the MEDEP and has confirmed with Gregg Wood that the "Administrative Order of Consent" compliance schedule negotiated with EPA will also be honored by the MEDEP going forward as recognized in the Revised NOV. There were no exceedances for fecal coliform in the extra twice per weekly testing that was conducted during the month. This case is now closed and no further action will be taken by MEDEP.

Ultra Violet Light Transmittance Testing for Disinfection

The 250 mL primary effluent sample sent to Trojan Technologies for % UV transmittance (UVT) testing was 35% UVT. This compares to expected transmittances of 5-40% for primary effluent domestic wastewater, 45-65% for secondary effluent, 65-85% for tertiary filtered effluent and 100% UVT for distilled water.

% UV Transmittance is a water quality parameter and major design criterion used to calculate the UV dose delivery in UV disinfection systems. Accordingly, and because a UV system to disinfect the NVC primary effluent would have to be sized to the equivalent of a 3.0 MGD flow rate along with cost, both Trojan Technologies and WEDECO do not recommend UV Radiation as a good application for disinfecting the NVC primary effluent.

Maine DEP Annual Routine Inspection

The MEDEP performed a routine inspection of the NVC wastewater treatment plant on August 2, 2019. A copy of the cover letter, the inspection report and the NVC response to additional information requested by MEDEP was sent to committee members under separate cover for their records. There were no significant issues raised.

Dry Tablet De-chlorinator Feeder

The installation of the new de-chlorination manhole access cover and dry tablet chemical feeder has been scheduled for October 1-2. Stevens Pump and Electric, Matt Brown Construction and Moore's Septic will all combine to finish the job under the watchful eyes of Bill Paige and Fernie Barton.

Spare Back-up Pumps

A spare wastewater submersible pump for the three dedicated simplex pump stations on Shore Road and a spare chemical metering pump to inject liquid sodium hypochlorite for disinfecting the effluent are now in store. The simplex pump replaces the spare pump that was recently used to replace the 20 year old pump that failed at PS#3. The metering pump was purchased as a backup to the one in current use because the Belfast Sewer District no longer stores parts or uses the same metering pump that the NVC operates with and therefore can no longer be relied upon in a pinch for borrowing should a failure occur as has been the case for the NVC for the last couple of decades.

Drinking Water Department

July 2019 Usage and Water Quality

Purchased water for the month averaged 40,679 gpd compared to 48,603 gpd in 2018. The weekly free chlorine residual in the drinking water ranged from 0.17 - 0.26 ppm/Cl² compared to the recommended goal of >.20 to <1.0 ppm/Cl². The EPA maximum concentration level (MCL) not to be exceeded for chlorine residual is 4.0 ppm. The monthly total and e-coli water sample test results were negative. There were no leaks discovered or reported during the month.

Annual Disinfection By-product Testing

Samples of drinking water from the distribution system were taken on August 2, 2019 to test for Total Haloacetic Acids (THAA) and Total Trihalomethanes (TTHM). The THAA test result was <1 ug/l and well below the EPA Maximum Contaminant Level (MCL) of < 60 ug/l. The TTHM test result was 5.3 ug/l compared to the EPA MCL of < 80 ug/l. The testing was performed by the State of Maine Health and Environmental Test Lab (HETL) in Augusta.

Cobe Road Water Main Replacement

A pre-construction meeting and documents to replacement the Cobe Road Water Main were signed on August 23. No specific start-up date was given by Farley and Sons, Inc, however they hoped to begin construction by the end of September.

Further, the Superintendent reported that he will reach out to Tim Sawtelle to reaffirm that we want the preliminary design draft for our October meeting if at all possible so that we may review it before reporting to DEP and EPA re: same in accordance with the deadline of 10/31 under our Consent Agreement.

Bill and Dick have also commenced discussions with the town CEO so that we incorporate her ideas in advance of permitting.

There being no further business to conduct, the meeting adjourned at 3:20.

Next Meeting: 2:30 p.m.
October 11, 2019